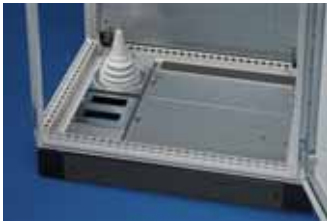


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Rittal Software Service

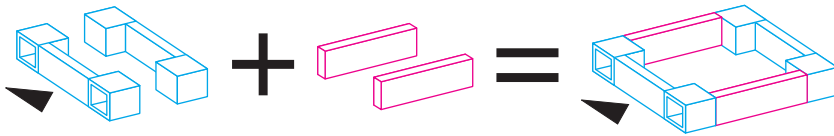
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Base

Base/plinth TS



One Model No. for the **base/plinth components** front and rear.

One Model No. for the **base/plinth trim**, side.

A complete **base/plinth TS**.

Modular base/plinth diversity

Regardless of the enclosure depth: The base/plinth components at the front and rear, pre-configured with corner pieces, are always the same for the chosen width. Only the side trim panels are selected according to the enclosure depth and the required base/plinth configuration. The modular concept produces exceptional advantages in terms of cost and function. Assembly on the enclosure is conveniently carried out from the outside. The base/plinth interior offers diverse opportunities for mounting levels for cable management.

Base/plinth height	Basic form	Cable gland options				Stabilisation of bayed base/plinth	
100 mm							
200 mm							

Function and cost benefits

Fewer parts, more opportunities, lower purchasing, storage and assembly costs – the formula for the new modular base/plinth system.

The following table shows three bayed base/plinths in 200 mm height illustrating a wide range of possible solutions and the potential savings with trim panels compared with the previous 200 mm base/plinth system each with two trim panels of 100 mm height at the sides.

Sample solutions	New supply includes	Functional benefits	Savings potential compared with twelve 100 mm trim panels
	3 packs of base/plinth components 1 pack of base/plinth trim panels 200 mm high	Continuous cable chamber	2 trim panels 200 mm
	3 packs of base/plinth components 1 pack of base/plinth trim panels 200 mm high 1 pack of base/plinth trim panels 100 mm high 1 pack of base/plinth baying brackets TS 8601.100 (packs of 20) 4 are required for this solution	Additional stabilisation for transportation purposes with base/plinth trim rotated through 90°	2 trim panels 200 mm 2 trim panels 100 mm
	3 packs of base/plinth components 2 packs of base/plinth trim panels 200 mm high	Shielding of the base/plinths in relation to one another	4 trim panels 200 mm
	3 packs of base/plinth components 1 pack of base/plinth trim panels 200 mm high 1 pack of base/plinth trim panels 100 mm high	Additional connection of the base/plinths	2 trim panels 200 mm 2 trim panels 100 mm
	Other options: <ul style="list-style-type: none"> ● Cable entry at the side by mounting a 100 mm base/plinth trim panel (top or bottom). ● Cable entry from the rear by dismantling one or more trim panels of the base/plinth components. ● Cable clamp rail fitted on the 100 mm high trim panel. 		

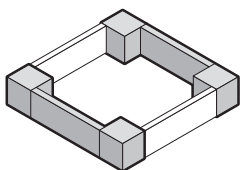


Base/plinth components, front and rear

Sheet steel for TS, CM, TP, PC-TS, IW, FR(i), TE
 Base/plinth component consisting of one trim panel and two pre-configured corner pieces. In 200 mm high base/plinth components, one trim panel is divided into two for cable entry.

Material:
 Sheet steel, spray-finished
 Cover caps plastic RAL 9005/7035

Supply includes:
 1 set =
 3 base/plinth components, 4 cover caps,
 4 screws and captive nuts M12 for mounting on the enclosure.



+ Accessories:

Base mounting plate SO 2817.000, see page 896.
 Filter mat for trim panel, vented, see page 898.

Detailed drawing,
 see page 894.

German patent no. 198 60 408

For enclosure width mm	Design	Colour		Model No. TS	
		RAL 7022	RAL 7035	100 mm high	200 mm high
300	Solid	–	■	8601.905	8602.905
	Solid	■	–	8601.915	8602.915
400	Solid	■	–	8601.400	8602.400
500	Solid	■	–	8601.500	8602.500
600	Solid	■	–	8601.600	8602.600
	Solid	–	■	8601.605¹⁾	8602.605
	Vented	–	■	7825.601²⁾	–
800	Vented with designer cover	–	■	7825.603	–
	Solid	■	–	8601.800	8602.800
	Solid	–	■	8601.805³⁾	8602.805
	Vented	–	■	7825.801⁴⁾	–
850	Vented with designer cover	–	■	7825.803	–
	Solid	■	–	8601.850	8602.850
1000	Solid	■	–	8601.000	8602.000
1100	Solid	■	–	8601.300	8602.100
1200	Solid	■	–	8601.200	8602.200
1600	Solid	■	–	8601.920	8602.920

¹⁾ Variant in RAL 9005: TS 8601.602
²⁾ Variant in RAL 9005: DK 7825.605

³⁾ Variant in RAL 9005: TS 8601.802
⁴⁾ Variant in RAL 9005: DK 7825.805

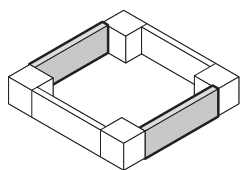


Base/plinth trim, side

Sheet steel for TS, CM, TP, PC-TS, IW, FR(i), TE
 For mounting between the base/plinth components. At 200 mm height, two 100 mm base/plinth trims may be used. Base/plinth trim (100 mm high) may be installed rotated through 90° in order to stabilise bayed base/plinth components.

Material:
 Sheet steel, spray-finished

Supply includes:
 1 set =
 2 base/plinth trim panels, including parts for attaching to the base/plinth components.



! Also required:

Base/plinth baying brackets TS 8601.100, see page 896, when mounting base/plinth trim panels rotated through 90°.

+ Accessories:

Assembly bolts for base/plinth, see page 896.

Detailed drawing,
 see page 894.

For enclosure depth mm	Colour		Model No. TS	
	RAL 7022	RAL 7035	100 mm high	200 mm high
300	■	–	8601.030	8602.030
400	■	–	8601.040	8602.040
500	■	–	8601.050	8602.050
600	■	–	8601.060	8602.060
	–	■	8601.065	8602.065
800	■	–	8601.080	8602.080
	–	■	8601.085¹⁾	8602.085
900	–	■	8601.095²⁾	8602.095
1000	–	■	8601.015³⁾	8602.015
1200	–	■	8601.025⁴⁾	8602.025

¹⁾ Variant in RAL 9005: TS 8601.086
²⁾ Variant in RAL 9005: TS 8601.092

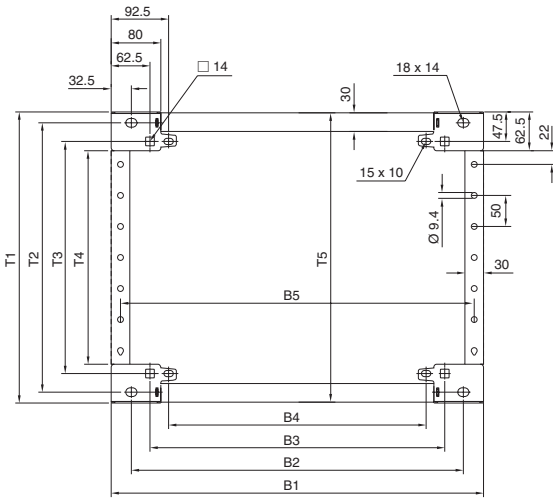
³⁾ Variant in RAL 9005: TS 8601.010
⁴⁾ Variant in RAL 9005: TS 8601.026

Base

Base/plinth TS

Base/plinth TS

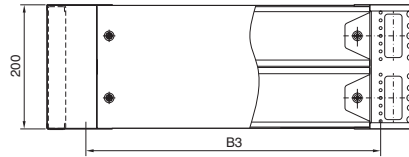
Sheet steel



Plinth, 100 mm high



Plinth, 200 mm high



Description of the hole patterns

B1/T1 = External dimensions

B2/T2 = For screw-fastening in the thread of the enclosure corner piece from below

B3/T3 = For screw-fastening with captive nuts to the enclosure base from below or above

All holes (B2 – B4 / T2 – T4) may be used for screw-fastening to the base.

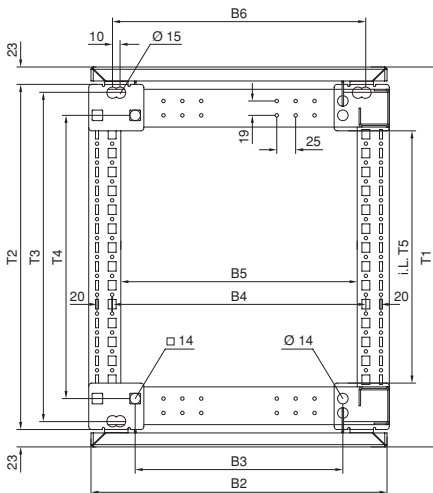
Base/plinth components front/rear						Page
Width mm	B1	B2	B3	B4	B5	
300	300	235	175	115	270	893
400	400	335	275	215	370	893
500	500	435	375	315	470	893
600	600	535	475	415	570	893
800	800	735	675	615	770	893
850	850	785	725	665	820	893
1000	1000	935	875	815	970	893
1100	1100	1035	975	915	1070	893
1200	1200	1135	1075	1015	1170	893
1600	1600	1535	1475	1415	1570	893

Base/plinth trims, side						Page
Depth mm	T1	T2	T3	T4	T5	
300	269	235	175	144	268	893
400	369	335	275	244	368	893
500	469	435	375	344	468	893
600	569	535	475	444	568	893
800	769	735	675	644	768	893
900	869	835	775	744	868	893
1000	969	935	875	844	968	893
1200	1169	1135	1075	1044	1168	893

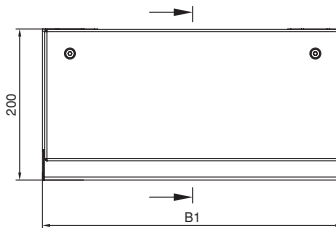
Cable chamber

for TS see page 895

Base/plinth TS



i.L. = Clearance width



Enclosure width mm	400	600	800	1000	1200
B1	398	598	798	998	1198
B2	392	592	792	992	1192
B3	275	475	675	875	1075
B4	335	535	735	935	1135
B5	312	512	712	912	1112
B6	335	535	735	935	1135
Enclosure depth mm	500	600	800	-	-
T1	503	603	803	-	-
T2	457	557	757	-	-
T3	435	535	735	-	-
T4	375	475	675	-	-
T5	344	444	644	-	-





Cable chamber

for TS

The front and rear sheet steel trim panels are simply plugged in at the bottom by means of a guide, and are screw-fastened to the frame. Cable chambers can be bayed at the sides if required; they are bayed in the same way as base frames.

Material:
Sheet steel

Colour:
RAL 7035

Supply includes:
Assembly parts for mounting on the enclosure.

For enclosures		Model No. TS
Width mm	Depth mm	
400	500	8600.455
400	600	8600.465
600	500	8600.655
600	600	8600.665
800	500	8600.855
800	600	8600.865
1200	500	8600.255
1200	600	8600.265

To order versions in RAL 7032, please add extension **.XX0** to the model no.

For primed version, please add extension **.XX1** to the model no.

Delivery times available on request.



Accessories:

Side panels for cable chamber, see page 895.

Detailed drawing,
see page 894.



Side panels

for cable chamber

Material:
Sheet steel

Colour:
RAL 7035

Supply includes:
Assembly parts.

For enclosure depth mm	Packs of	Model No. TS
500	2	8600.510
600	2	8600.520

To order versions in RAL 7032, please add extension **.0X0** to the model no.

For primed version, please add extension **.XX1** to the model no.

Delivery times available on request.



Transport castors

for base/plinth TS

For locating onto the base/plinth corner piece 100 or 200 mm high by raising or tilting.

Load capacity:
Maximum permissible load per twin castor:
static: 100 kg

Supply includes:
1 set =
4 twin castors,
2 x with, 2 x without locks.

Colour:
RAL 7022

Note:
Base/plinth trims, side, must be fitted in a free-standing position.

Floor clearance mm	Model No. TS
100	8800.390



Also required:

Base/plinth trim, side,
see page 893.

Base

Base/plinth TS



Base assembly plate

for base/plinth TS and base/plinth, complete

For fastening the plinth to the floor without moving the enclosure or the bayed enclosure suite. For assembly screws up to 12 mm Ø.

Material:

Sheet steel, zinc-plated, passivated

Packs of	Model No. SO
10	2817.000



Fastening bolts

for

- Base/plinth TS
- Base/plinth, complete
- Base/plinth, stationary

For mounting on base/plinth trim panels, side. The lockable assembly bolt allows the installation of cable clamp rails and standard C rails.

Material:

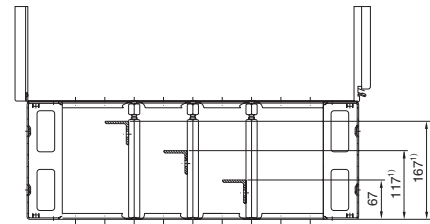
Hexagon steel, zinc-plated, passivated, width across flats 19 mm

Base/plinth trim panel mm high	Packs of	Model No. SZ
100	10	2819.000
200	10	2819.200



Accessories:

Cable clamp rail, see page 1061.
C rail 30/15, see page 999.



¹⁾ only for height 200 mm



Base/plinth baying brackets

for base/plinth TS

Essential if the trim panels are mounted rotated through 90° for additional stabilisation during the transportation of bayed enclosures. Additionally required for each trim panel: 2 units.

Material:

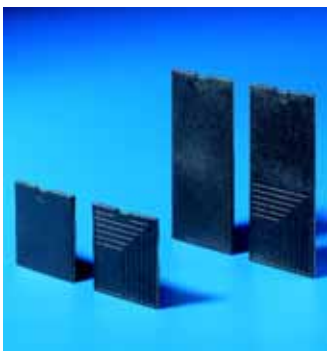
Sheet steel, zinc-plated, passivated

Supply includes:

Screws M8 x 16 mm.

Packs of	Model No. TS
20	8601.100

Base/plinth TS



Cover cap

for base/plinth components TS

As a replacement.

Material:

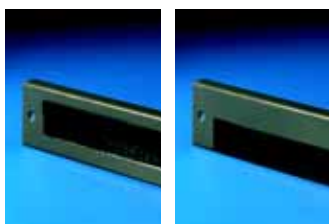
Plastic ABS

Colour:

RAL 9005

For base/plinth height mm	Packs of	Model No. TS
100	4	8601.130
200	4	8601.140

B
7.1



Version A

Version B



Base/plinth trim

with brush strip for base/plinth TS

The supplement to the modular base/plinth concept (see page 892). May also be exchanged retrospectively for the front or rear trim panel of the base/plinth components 100 or 200 mm high.

Material:
Sheet steel, spray-finished

Version A:
By rotating the trim panel, the hammer-head strip for cable attachment may optionally be positioned at the top or bottom, sealed all-round for a high level of stability.

Version B:
Open on one side for retrospective mounting if cables have already been inserted.

Version A

For base/plinth width mm	Height mm	Model No. TS	
		RAL 7022	RAL 7035
600	100	8601.610	8601.615
800	100	8601.810	8601.815



Accessories:

Cable tie SZ 2597.000, see page 1066.

Version B

For base/plinth width mm	Height mm	Model No. TS	
		RAL 7035	RAL 9005
600	100	7825.607	7825.608
800	100	7825.807	7825.808



Connecting plinth trim

for base/plinth TS

For covering gaps in the case of bayed back-to-back or corner enclosure suites. Simply push in between the trim panel and the corner piece before tightening the screws.

Material:
Sheet steel

For base/plinth height mm	Colour RAL	Packs of	Model No. TS
100	7022	2	8601.110
200	7022	2	8601.120
100	7035	2	8601.115
200	7035	2	8601.125



Base/plinth trim

for base/plinth TS

to continue the design of the

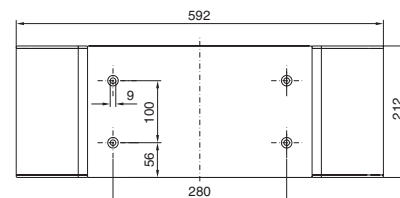
- bottom front door of PC enclosures based on TS,
- door of the IW enclosure.

The base/plinth trim is screw-fastened to the corner pieces of the TS base/plinth components from the outside.

Material:
Sheet steel, spray-finished
Designer trim panels: Extruded aluminium section

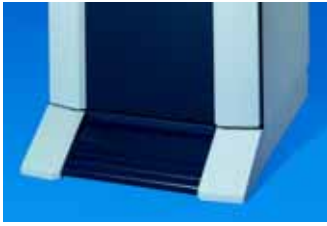
Colour:
RAL 7015
Designer trim panels: RAL 7035

For base/plinth width mm	Height mm	Model No. PC
600	200	8360.920



Base

Base/plinth TS



Base/plinth, stationary for PC-TS, IW

Design-coordinated with the enclosures, height 100 mm, with front projection.

Material:
Sheet steel, 2.0 mm

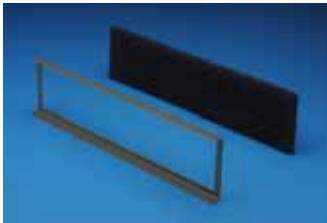
Colour:
RAL 7035
Design component, front: RAL 7015

Supply includes:
1 design component, front
1 base/plinth component, rear
2 base/plinth trim panels, side

For depth mm	Model No. PC
600	8800.920

Accessories:

- Attachment opportunities for:
- Twin castors PC 4634.500, see page 907,
 - Levelling feet PS 4612.000, see page 906,
 - Fastening bolts for cable clamp rails SO 2819.000, see page 896,
 - Support bracket PS 4183.000, see page 1007.



Filter mat

- for
- Base/plinth component, vented
 - Base/plinth component, vented, with designer trim panel

To cover the trim panel in the base/plinth component.

The mounting frame slides into position behind the filter mat in the base/plinth trim panel.

Filter class G3 to DIN EN 779.

Supply includes:
Mounting frame.

For enclosure width mm	Packs of	Model No. DK
600	1	7561.500
800	1	7581.500

Spare filter mat

Supply includes:
Filter mat without mounting frame for base/plinth trim panels up to 800 mm wide.

	Packs of	Model No. DK
Spare filter mats	5	7582.500



Base/plinth components, front and rear

Stainless steel for TS, CM

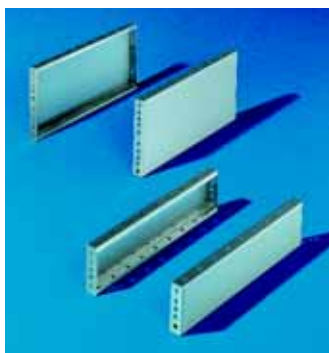
Material:
Stainless steel 1.4301 (AISI 304)

Surface finish:
Brushed, grain 400

Supply includes:
Assembly parts including 4 screws and captive nuts M12 for mounting on the enclosure.

100 mm high:
2 trim panels front/rear

200 mm high:
2 corner pieces with removable trim panel,
1 trim panel front/rear.



Base/plinth trim, side

Stainless steel for TS, CM

For mounting between the base/plinth components. At 200 mm height, two 100 mm base/plinth trims may be used.

Base/plinth trim (100 mm high) may be installed rotated through 90° in order to stabilise bayed base/plinth components.

Material:
Stainless steel 1.4301 (AISI 304)

Surface finish:
Brushed, grain 400

Supply includes:
2 base/plinth trim panels, including parts for attaching to the base/plinth components.

- 1 Base/plinth components front/rear
- 2 Base/plinth trim panel, side
- 3 Base/plinth corner piece
- 4 Trim panel, removable

Description of the hole patterns

B/T =

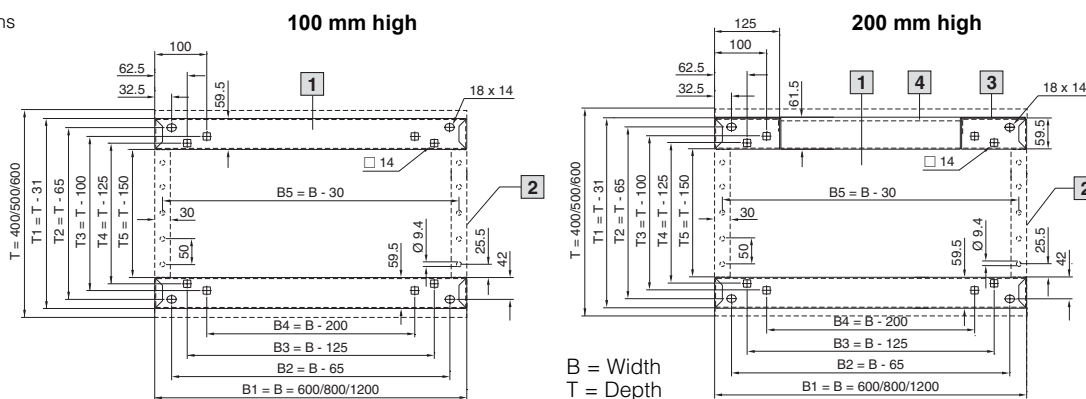
Enclosure dimensions

B1/T1 =
External dimension

B2/T2 =
For screw-fastening in the thread of the enclosure corner piece from below

B3/T3 =
For screw-fastening with captive nuts to the enclosure base from below or above

All holes (B2 – B4/T2 – T4) may be used for screw-fastening to the base.



For enclosure width mm	Model No. TS	
	100 mm high	200 mm high
600	8701.600	8702.600
800	8701.800	8702.800
1200	8701.200	8702.200

To order enclosures in stainless steel 1.4404 (AISI 316L) please add the extension .X05 to the model no. Delivery times available on request.

+ Accessories:

Base/plinth trim, modular (perforated plate), see page 899.

⇄ Possible alternative:

Supporting structure Hygienic Design, see page 300.

For enclosure depth mm	Model No. TS	
	100 mm high	200 mm high
400	8701.040	8702.040
500	8701.050	8702.050
600	8701.060	8702.060

To order enclosures in stainless steel 1.4404 (AISI 316L) please add the extension .X05 to the model no. Delivery times available on request.

! Also required:

Base/plinth baying brackets TS 8601.100, see page 896, when mounting base/plinth trim panels rotated through 90°.

+ Accessories:

Assembly bolts for base/plinth, see page 896. Levelling feet PS 4612.000, see page 906.

Base/plinth trim, modular

for base/plinth TS and base/plinth, complete, stainless steel

For cable routing in the stainless steel base/plinth, e.g. if levelling feet SO 2890.000 or SO 2890.000, see page 903, are used. Width: 175 mm.

Material:
Stainless steel 1.4301 (AISI 304)

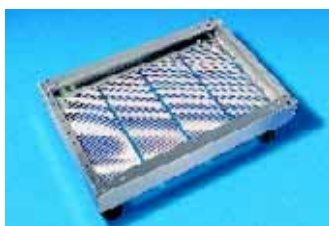
Supply includes:
4 base/plinth trim panels.

For enclosure depth mm	No. of base/plinth trims required for base/plinth width ¹⁾				Model No. SO
	600 mm	800 mm	1000 mm	1200 mm	
400	3	4	5	6	2907.000
500	3	4	5	6	2908.000
600	3	4	5	6	2913.000

¹⁾ If the surface is to be completely sealed.

+ Accessories:

Cable tie SZ 2597.000, see page 1066.



Base

Base/plinth TS



Transport plinth

for TS

For the transportation of heavy, bayed enclosure suites. Available in 200 mm increments from 2 to 5 m.

Transport plinths can have 2 tubes welded to receive cross-bars for transportation. Variable punchings to suit all enclosure widths of 600 mm and above.

Surface finish:

Primed in reddish-brown rust-inhibiting paint, optionally spray-finished.

Note:

Please state the required width and depth of the enclosure suite when ordering.



For mounting on the TS base frame

Transport plinth depth = enclosure depth – 31 mm

Colour	Packs of	Model No. SO	
		With transport tubes	Without transport tubes
Primed, reddish-brown rust-inhibiting paint	1	1228.010	1228.000
Similar to RAL 7022	1	1228.110	1228.100
Similar to RAL 7032	1	1228.210	1228.200
Similar to RAL 7035	1	1228.310	1228.300

Delivery times available on request.

For mounting on the TS corner piece

Transport plinth depth = enclosure depth

Colour	Packs of	Model No. SO	
		With transport tubes	Without transport tubes
Primed, reddish-brown rust-inhibiting paint	1	1228.015	1228.005
Similar to RAL 7022	1	1228.115	1228.105
Similar to RAL 7032	1	1228.215	1228.205
Similar to RAL 7035	1	1228.315	1228.305

Delivery times available on request.



Concrete base/plinth

for Outdoor enclosures

The base/plinth is made from pre-cast concrete sections which are easily fitted in situ. Front/rear base/plinth plate screw-fastened from the inside may be removed for servicing purposes.

Overall height: approx. 1000 mm, excavation depth: approx. 700 mm.

Material/Surface finish:

Light concrete, untreated

Supply includes:

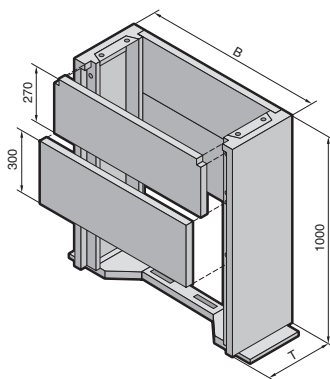
1 base plate,
2 side parts,
2 divided base/plinth plates, including assembly parts and assembly screws for enclosure configuration.

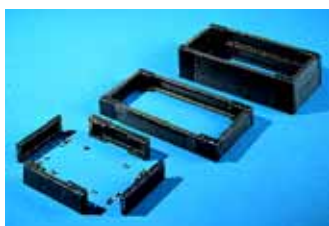
Note:

Base/plinth trim panel screw-fastened from the outside available on request.

For enclosures/housings		Model No. CS
Width (B) mm	Depth (T) mm	
CS modular and basic enclosures		
600	400	9765.182
600	500	9765.082
600	600	9765.083
800	400	9765.088
800	500	9765.084
800	600	9765.085
1200	400	9765.089
1200	500	9765.086
1200	600	9765.087
Toptec CR		
600	600	9765.166
800	600	9765.186

Delivery times available on request.
Other sizes available on request.





Base/plinth, complete

Sheet steel for AE, AP, ES, PC-ES

consisting of:
Trim panels at the front and rear with fitted corner pieces and side trim panels.

Material:
Sheet steel, spray-finished

Colour:
RAL 7022

Supply includes:

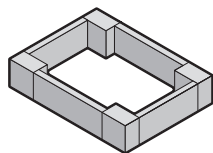
Assembly parts including 4 screws and captive nuts M12 for mounting on the enclosure.

100 mm high:

4 corner pieces, 2 trim panels front/rear, 2 trim panels side.

200 mm high:

4 corner pieces, 1 trim panel front/rear x 200 mm, 2 trim panels front/rear x 100 mm, 4 trim panels side.



Base/plinth for ES-PC/AP universal console

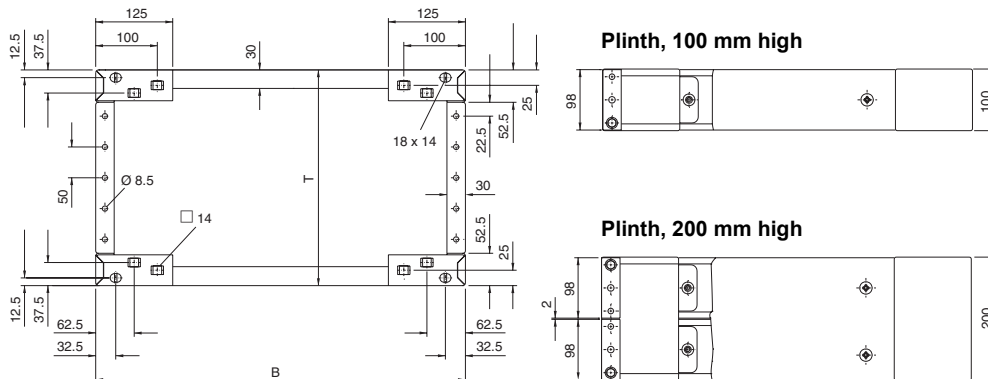
For enclosures/consoles		Base/plinth depth (T) mm	Model No. SO	
Width (B) mm	Depth mm		100 mm high	200 mm high
600	400	350	2804.200	2805.200
600	500	450	2807.200	2808.200
600	600	550	2813.200	2814.200
600	800	750	2846.200	2847.200
800	400	350	2823.200	2824.200
800	500	450	2829.200	2830.200
1000	400	350	2909.200	2910.200
1200	400	350	2836.200	2837.200
1200	500	450	2839.200	2840.200
1600	400	350	2905.200	2906.200
1800	500	450	2903.200	2904.200

Base/plinth for AE, AP one-piece console

For enclosures/consoles		Base/plinth depth (T) mm	Model No. SO	
Width (B) mm	Depth mm		100 mm high	200 mm high
600	300	279	2816.200	2826.200
600	400	370	2911.200	2912.200
800	300	279	2818.200	2828.200
800	400	370	2901.200	2902.200
1000	300	279	2801.200	2802.200
1000	400	370	2891.200	2892.200
1200	400	370	2921.200	2922.200

Accessories:

Assembly bolts for base/plinth, see page 896.
Base mounting plate, see page 896.

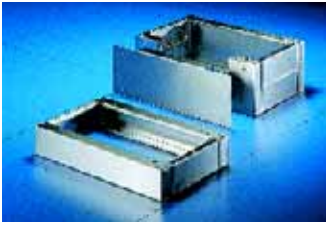


Base/plinth

B
7.1

Base

Base/plinth



Base/plinth, complete

Stainless steel for ES, PC-ES, AP one-piece console

Material:
Stainless steel 1.4301 (AISI 304)

Surface finish:
Brushed

Supply includes:

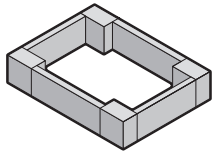
Assembly parts including 4 screws and captive nuts M12 for mounting on the enclosure.

100 mm high:

2 trim panels front/rear,
2 trim panels side.

200 mm high:

2 corner pieces with removable trim panel,
1 trim panel front/rear, 4 trim panels side.



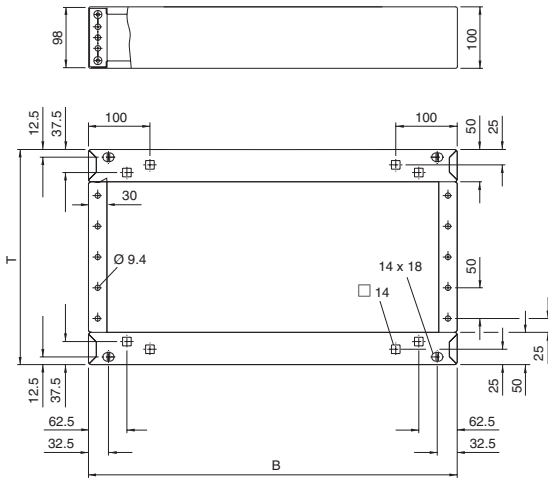
Accessories:

Levelling feet,
see page 903.
Base/plinth trim, modular (perforated plate),
see page 899.

For enclosures/consolas		Model No. SO	
Width mm	Depth mm	100 mm high	200 mm high
600	400	2865.000	2875.000
600	500	2868.000	2876.000
600	600	2855.000	2877.000
800	400	2869.000	2878.000
800	500	2866.000	2879.000
800	600	2856.000	2880.000
1000	400	2867.000	2885.000
1200	400	2870.000	2886.000
1200	500	2860.000	2887.000

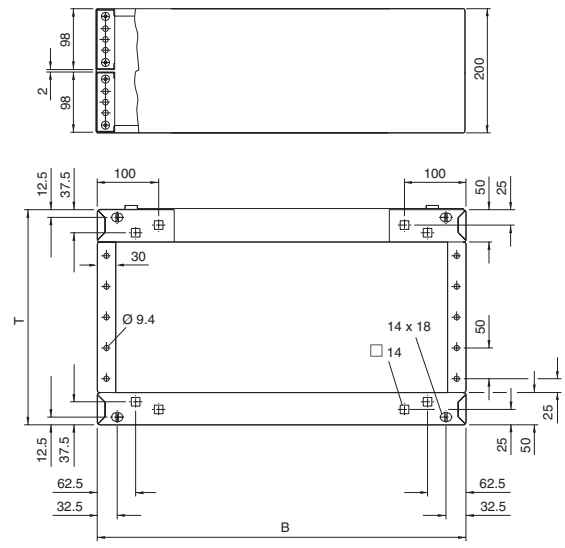
To order enclosures in stainless steel 1.4404 (AISI 316L) please add the extension .500 to the model no. Delivery times available on request.

Plinth, 100 mm high



T = Enclosure depth – 50 mm
B = Enclosure width

Plinth, 200 mm high



T = Enclosure depth – 50 mm
B = Enclosure width

Base/plinth

Transport castors

for base/plinth, complete

For locating onto the base/plinth corner piece 100 or 200 mm high by raising or tilting.

Load capacity:

Maximum permissible static load:
100 kg per twin castor

Supply includes:

1 set =
4 twin castors,
2 x with, 2 x without locks.

Colour:

RAL 7022

Floor clearance mm	Model No. PS
60	4570.000



B
7.1



Cross-member

for TS, CM, TP, PC, IW, ES, AP adjustable

To increase stability, the cross-member is positioned 138 mm above the base frame of the enclosure at the front and rear. For deeper enclosures, the rear part may be extended and screw-fastened again. For screw-fastening to the floor and enclosure with mounting hole at the sides, front and rear. The castors and levelling feet may be secured to the welded nuts M12.

Material:
Sheet steel, spray-finished

Colour:
RAL 7015

Note:
For mobile use, the cross-member must be screw-fastened twice in the corners of the enclosure.



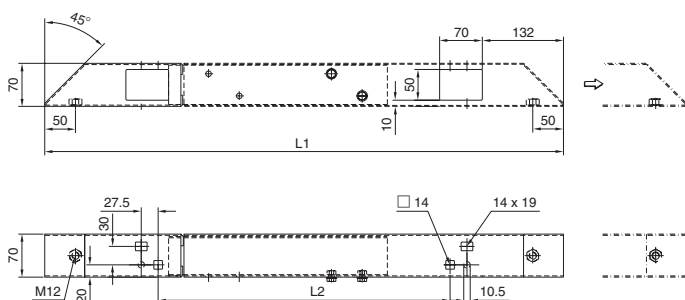
For	Enclosure depth mm	L1	L2	Packs of	Model No. TS/AP
TS, CM, TP, PC, IW, ES, AP	400	644	275	2	8601.450
	500	744	375		
	600	844	475		
Universal console	800	1044	675	2	8601.680
AP one-piece console	400	634	320	2	2697.450
	500	734	390		

Accessories:

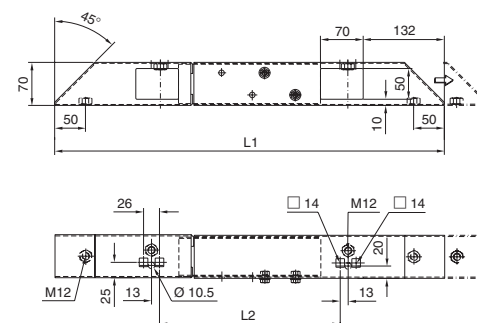
Mounting options for

- Twin castors PC 4634.500, see page 907.
- Levelling feet PS 4612.000, see page 906.

TS 8601.450, TS 8601.680



AP 2697.450



Cast feet

For IW

- For secure siting of
- Enclosure for tower PC or
 - Other own assemblies

Depth 700 mm.

Material:
Cast aluminium

Colour:
RAL 7035

Supply includes:
Assembly parts.



Packs of	Model No. IW
2	6902.920

Accessories:

Base mount CP 6147.000, see page 291.
Twin castors, see page 907.

Levelling feet

For direct mounting underneath the base/plinth TS and the base/plinth, complete.
For unhindered access e.g. when cleaning the floor, and to compensate for floor irregularities.

Load capacity:
Maximum permissible static load:
400 kg per levelling foot

Adjustment range:
M12: 55 mm – 125 mm
M16: 45 mm – 120 mm

Material:
Stainless steel 1.4301 (AISI 304)



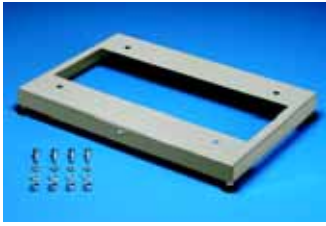
Thread	Packs of	Model No. SO
M12	4	2889.000
M16	4	2890.000

Possible alternative:

Levelling feet Hygienic Design, see page 301.

Base

Base/plinth



Base/plinth

for EL

The base/plinth can be fitted onto all EL enclosures with a centre part depth of 316 or 416 mm. Holes must be made for attaching to the centre part. A drilling template is supplied. These may additionally be fitted with castors for use as a mobile base/plinth.

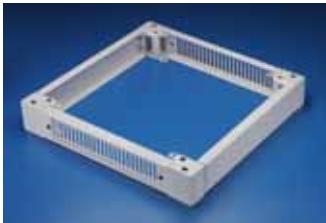
Material:
Sheet steel

Colour:
RAL 7044

Supply includes:
4 levelling feet and assembly parts.

For centre part depth mm	Packs of	Height mm	Model No. DK/VR
316	1	50	7505.300¹⁾
416	1	50	7505.400¹⁾
Additional castors for base/plinth		4	3805.500

¹⁾ Delivery times available on request.



Base/plinth, vented

for TE 7000

For easier cable routing between bayed enclosure systems or as additional storage space beneath the enclosure, this vented complete base/plinth is easily screwed underneath. The trim panels may be removed on all sides to allow cable routing in all directions.

Base/plinth height:
100 mm

Material:
Sheet steel, spray-finished

Colour:
RAL 7035/9005

Supply includes:
1 base/plinth, vented,
assembly parts.

For enclosures		Colour RAL	Model No. TS
Width mm	Depth mm		
600	1000	9005	7000.686
800	1000	9005	7000.687
600	600	7035	7000.690
600	800	7035	7000.691
600	1000	7035	7000.692
800	600	7035	7000.693
800	800	7035	7000.694
800	1000	7035	7000.695

Accessories:

Filter mat for base/plinth, vented, 600 mm wide DK 7561.500 and 800 mm wide DK 7581.500, see page 898.



Base/plinth trim, solid

for base/plinth, vented

To be used in exchange for the existing trim panel. If a solid design is required for the base/plinth for TE, the vented front and rear trim panels should be exchanged for solid trim panels.

Material:
Sheet steel, spray-finished

Colour:
RAL 7035

Supply includes:
2 base/plinth trim panels,
assembly parts.

For enclosure width mm	Colour RAL	Model No. TS
600	7035	7000.696
800	7035	7000.698



Under-floor frame

for DK-TS, FR(i)

For siting the enclosure on a false floor when heavy equipment is installed.

Material:
Sheet steel

Colour:
RAL 7035

Supply includes:
Baying connector and base mounting bracket.



Width mm	Height mm	Depth mm	Model No. DK
600	400	1000	7855.340
800	400	1000	7855.342

Delivery times available on request.

Note:
Other sizes available on request.



Stabiliser bracket

for base/plinth TS

The stabiliser bracket may be retrospectively screw-fastened to the outside of the base/plinth corner pieces.

Load capacity:
Up to a maximum of 80 kg static load.

Material:
Sheet steel, spray-finished

Colour:
RAL 7035, warning markings RAL 2002

Supply includes:
Assembly parts.

Packs of	Model No. DK
2	7825.150



Stabiliser

for server racks DK-TS, FR(i)

The pull-out stabiliser is quickly and easily retrofitted to the lower frame of the server racks and only extended when necessary. May be used in combination with levelling feet and/or transport kit for DK-TS (DK 7825.900), see page 908.

Load capacity:
Up to a maximum of 150 kg static load.

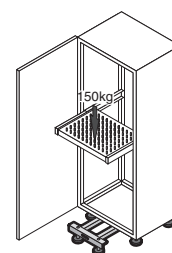
Material:
Sheet steel, zinc-plated, passivated

Supply includes:
Assembly parts.



Enclosure depth mm	Model No. DK
900	7825.200
1000	7825.250
1200	7825.260

Note:
The stabiliser cannot be used together with base plates, base frames or base/plinths. Combined use with the divided base frame (DK 7825.341 – DK 7825.345), see page 910, is supported.



Base

Base



Levelling feet

18 – 43 mm high

To compensate for height differences with floor irregularities. Thread length 40 mm. Assembly thread M12.

Maximum permissible static load: approx. 300 kg per levelling foot.

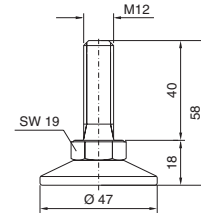
For:

- Baying system TS 8
- PC enclosure system
- Pedestal base plate
CP 6137.035 – CP 6137.535
- Pedestal CP 6141.XXX
- Industrial workstations
- flexRack(i)

Packs of	Model No. PS
4	4612.000

! Also required:

For mounting on the TS base/plinth:
Base/plinth adaptor TS 8800.220, see page 908.



Levelling feet

18 – 63 mm high, with hex socket for baying system TS 8, FR(i)

To compensate for floor irregularities. Particularly in confined spaces, adjustments can be made quickly and easily from the enclosure interior.

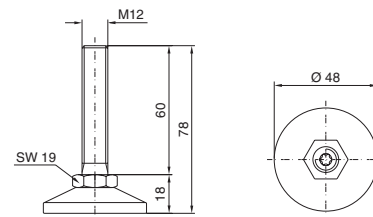
Mounting thread: M12
Hex socket: 6 mm
Thread length: 60 mm

Maximum permissible static load:
300 kg/levelling foot.

Packs of	Model No. DK
4	7493.100

! Also required:

For mounting on the TS base/plinth:
Base/plinth adaptor TS 8800.220, see page 908.



Levelling feet

with vibration dampening

For vibration insulation of enclosures and to compensate for floor irregularities.

The levelling foot is comprised of a disc of reinforced polyamide and an M12 screw, zinc-plated, with ball joint pendulum plus anti-slip and insulating plate for buffering.

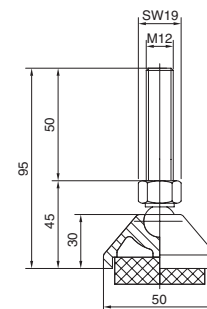
The insulating plate is resistant to water, mineral oils, petrol, alkaline and acid solutions, salts, soap lye and detergents.

Also suitable for special applications such as chemical and laboratory environments.

Thread length: 50 mm

Maximum permissible static load:
150/300 kg per levelling foot.

Maximum permissible static load per levelling foot	Packs of	Model No. DK
150 kg	4	7493.210
300 kg	4	7493.230



Levelling feet

for Data Rack

To compensate for height differences in the event of floor unevenness.

The levelling feet are attached into the die-cast zinc feet of the base/plinth.

Supply includes:

4 levelling feet M12,
levelling range 40 mm.

Packs of	Model No. DK
4	7493.000



Levelling feet

for FlatBox, TE
M10 x 20 mm

For fastening onto the enclosure base when used as a floor-standing or desktop enclosure.
Width across flats 17, mounting thread multi-tooth 30.

Packs of	Model No. DK
4	7507.740



Levelling feet

85 – 115 mm high

For mounting on TS, ES and PC enclosures, for easier floor cleaning and to compensate for floor irregularities ±15 mm.
Height 100 mm.

Maximum permissible static load:
350 kg per levelling foot.

Material:

Feet: Nickel-plated brass
Threaded bolts and mounting plates:
Stainless steel 1.4301 (AISI 304)

Supply includes:

Assembly parts to the enclosure.

Packs of	Model No. SO
4	2859.000

Possible alternative:

Levelling feet Hygienic Design, see page 301.



Twin castors

Mounting thread M12 x 20.

Maximum permissible static load (per castor) kg	Floor clearance mm	Lock	Packs of		Colour	Model No.
40	50	4 without	1 set	1	Black	4611.000
75	85	2 with, 2 without	1 set	2	Black with grey running surface	6148.000
120	125	2 with, 2 without	1 set	3	Black	4634.500¹⁾
				4		7495.000

¹⁾ With metal enclosure



For:

- Baying system TS 8
- PC enclosure system
- Pedestal base plate
CP 6137.035 – CP 6137.535
- Pedestal CP 6141.XXX
- TopConsole pedestals
- Industrial workstations
- flexRack(i)
- Data Rack

Also required:

For mounting on the TS base/plinth:
Base/plinth adaptor for twin castors TS 8800.290, see page 908.

Base

Base



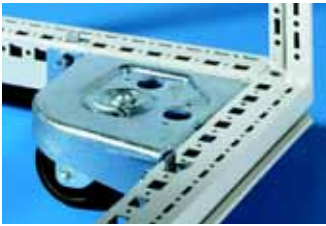
Transport castors for TE

For easy transportation between sites. The castors may be screw-fastened in the corner areas within the base frame in place of the levelling feet. Ground clearance: 58 mm, mounting thread M10 x 20

Permissible static load:
300 kg per enclosure

Packs of	Model No. TE
1 set	7000.672

Supply includes:
1 set = 4 baying clamps,
including assembly parts.



Transport kit for DK-TS

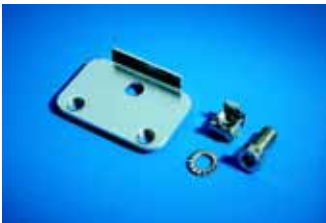
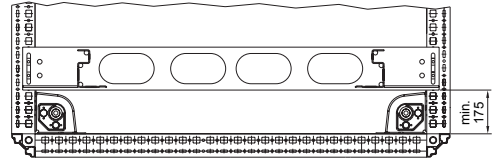
For convenient transportation of the configured network enclosures to their final installation site, or as a mobile rack. Ground clearance approx. 40 mm.

Permissible static load:
750 kg per enclosure

Supply includes:
1 set =
4 castors (2 steerable) including assembly parts.

Packs of	Model No. DK
1 set	7825.900

Note:
Only for enclosures without gland plates or gland plate frames.
For 800 mm wide enclosures with 19" mounting frame, special installation dimensions must be observed (see drawing).



Base/plinth adaptor for levelling feet

Connection component for fastening M12 levelling feet PS 4612.000 to the TS base/plinth.

Material:
Sheet steel, zinc-plated, passivated

Packs of	Model No. TS
4	8800.220

! Also required:

Levelling feet PS 4612.000,
see page 906.



Base/plinth adaptor for twin castors

Connection component for mounting twin castors to the TS base/plinth.

Material:
Sheet steel, zinc-plated, passivated

Packs of	Model No. TS
4	8800.290

! Also required:

Base/plinth trim panels, side,
see page 893,
wherever a twin castor is fitted.



Width divider

Divides 1200 mm wide TS enclosures into two halves.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

- 1 set =
- 1 bracket for right/left,
- 2 compensating plates for the top,
- mounting accessories.

Packs of	Model No. TS
1 set	8800.200



Also required:

Depending on the installation situation:
 TS punched rail 18 x 38 mm,
 see page 996.
 PS punched section without mounting flange
 23 x 73 mm,
 see page 998.



1st mounting situation:

Two mounting plates side by side.

Two mounting plates (from 600 mm wide enclosures) in a 1200 mm wide enclosure permit independent positioning and easy handling.



Also required:

In accordance with the enclosure depth:
 4 TS punched rails 18 x 38 mm, bottom,
 see page 996,
 1 PS punched section 23 x 73 mm, top,
 see page 998.



2nd mounting situation:

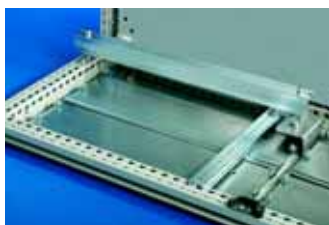
System support rails, fitted on the left.

Whilst heavy installed equipment rests on the system support rails, the remaining floor space is free, e.g. for unhindered cable entry.



Also required:

2 system support rails PS 4361.000,
 see page 1000.
 1 TS punched rail 18 x 38 mm in accordance with the enclosure depth (included with the supply of the standard enclosure).



3rd mounting situation:

Cable clamp rail, installed on the left.

With 1200 mm wide enclosures, the width divider allows cable entry and cable clamping to be arranged differently on the left and right of the enclosure.



Also required:

1 cable clamp rail PS 4191.000,
 see page 1061.
 1 TS punched rail 18 x 38 mm in accordance with the enclosure depth (included with the supply of the standard enclosure).



Base mounting bracket

for TS, ES, AR universal console, FR(i)

For anchoring the enclosure at any position of the base frame, particularly in cases where the existing holes in the frame or base tray cannot be used due to the installed equipment or because the substructure prevents them from being used.

Material:

Sheet steel, zinc-plated, passivated

Packs of	Model No. TS
4	8800.210

Note:

Additional holes in the base are required for mounting.



Base

Base



Reinforcement bracket

For TS, ES, AP universal console

For use as an additional stabiliser to the clamping straps when populated enclosures are screw-fastened via the base tray to the base/plinth or pallet for transportation purposes.

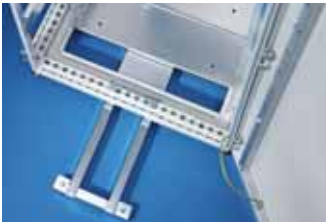
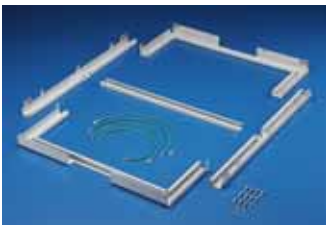
Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.

Packs of	Model No. TS
4	8800.830



Base frame, divided

for server racks DK-TS, FR(i)

For retro-fitting a base frame. Particularly for the use of gland plates or base modules within TS server enclosures, it is necessary to fit this base frame first in order to accommodate the base elements. The divided design also allows it to be retro-fitted. Suitable for combining with the pull-out stabiliser.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Packs of 1 set
Frame elements,
assembly parts.

For enclosures		Model No. DK
Width mm	Depth mm	
600	900	7825.341
600	1000	7825.342
600	1200	7825.343
800	1000	7825.344
800	1200	7825.345

Note:

Transport kit:

For optional use of the transport kit DK 7825.900 (see page 908) the front and rear frame elements may be temporarily removed and then re-fitted to the transport.

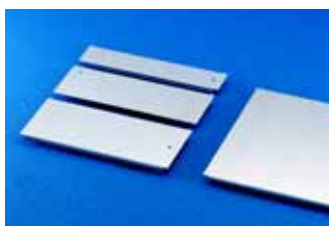
Stabiliser:

see page 905.



Accessories:

Multi-piece gland plate,
see page 913.



Gland plate

for CM, TP

Select suitable gland plates depending on the application. The following examples illustrate how individually cable entry may be structured. Potential equalisation is provided via assembly components and earthing points.

Material:

Sheet steel, zinc-plated, passivated

Protection category:

IP 55 to EN 60 529/09.2000, subject to correct mounting.

Supply includes:

1 piece, including assembly parts.

Note:

For greater stability and universal cable entry, the base opening is divided in the width for 1000 and 1600 mm wide enclosures, and is suitable for various configurations.

Design	For enclosure/console depth mm				
	600	800	1000	1200	1600
	Model No. CM				
1	5001.210	5001.211	5001.212	5001.213	5001.233
2	5001.214	5001.215	5001.216	5001.217	5001.234
3	5001.218	5001.219	5001.220	5001.221	5001.235
4	5001.222	5001.223	5001.224	5001.225	5001.236

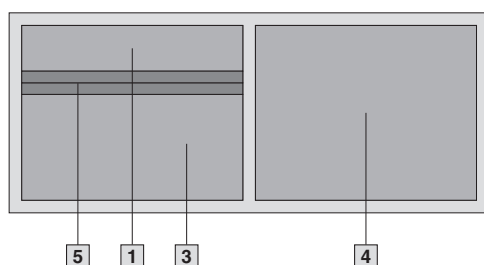
Combination options:

	Depth 300 mm	Depth 400 mm	Depth 500 mm	
One-piece/ cable gland				Key: 1 Gland plate, depth 50 mm 2 Gland plate, depth 100 mm 3 Gland plate, depth 150 mm 4 Gland plate, depth 250 mm 5 Section for cable entry, centre, see page 1046. 6 Cable entry plates, depth 100 mm, see page 1045. Cable entry grommets, see page 1046. 7 EMC base plate, see page 1032. 8 Cable glands, see page 1054. 9 Section for cable entry, rear, see page 1047.
Divided/ cable gland				
Divided/ cable clamp strip, centre				
Divided/ cable clamp strip, rear				
Divided/ cable clamp strip, centre and rear				
Divided/ 1 x grommets				
Divided/ 2 x grommets				
EMC				

Order example:

CM 5120.500
(W/H/D 1000 x 1200 x 400 mm)

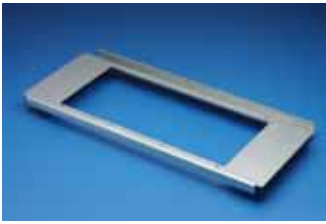
- On left, gland plates divided into two with cable clamp strip
- On right, one-piece gland plate



You will need:

- 5** 2 sections for cable entry, centre, TS 8802.100, see page 1046. (packs of 2 sets)
- 1** 1 gland plate, depth 50 mm, 5001.212
- 3** 1 gland plate, depth 150 mm, 5001.220
- 4** 1 gland plate, depth 250 mm, 5001.224

Base



Gland plate with sealing bar

for TS, CM, TP

Can be installed in:

- TS in depth and width
- CM, TP in width

Reduces the base opening by 200 mm.

For example, a gland plate with sealing bar for large supply cables can be mounted at the side in the enclosure depth with the usual partition in the width (200 mm smaller than the enclosure width) adjacent to it, above the standard gland plates.

Material:

Sheet steel

Surface finish:

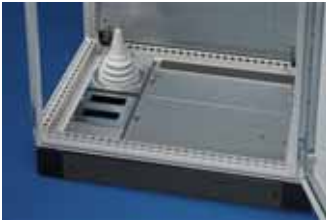
Zinc-plated, passivated

Protection category:

IP 55 to EN 60 529/09.2000

Supply includes:

Assembly parts and seals.



For enclosure width/depth mm	For module plates, divided	Packs of	Model No. CM
500	2	1	5001.230
600	2	1	5001.231
800	3	1	5001.232



Accessories:

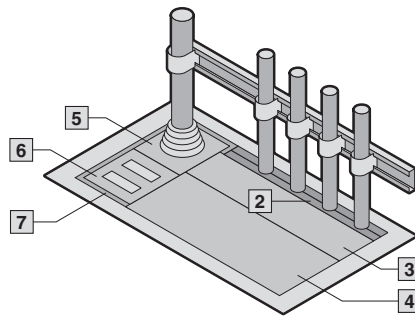
CM gland plate, see page 911.
Section for cable entry, rear, see page 1047.
Section for cable entry, centre, see page 1046.
EMC gland plate, see page 1032.
Cable glands, see page 1054.



Also required:

Module plates, see page 923.
Module plates, divided, see page 924.

TS ordering example:
W 800 x D 600 mm



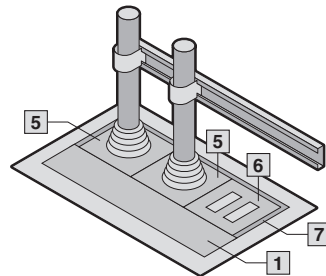
For 600 mm enclosure depth:

- 7** Gland plate with sealing bar CM 5001.231
- 5** Module plate, divided with grommet
- 6** Module plate, divided with 16- or 24-pole cut-outs

For reducing the enclosure width by 200 mm down to 600 mm:

- 2** Section for cable entry, centre
- 3** CM gland plate, depth 150 mm
- 4** CM gland plate, depth 250 mm

CM ordering example:
W 800 x D 400 mm



For 800 mm enclosure width:

- 7** Gland plate with sealing bar CM 5001.232
- 5** Module plate, divided with grommet
- 6** Module plate, divided with 16- or 24-pole cut-outs
- 1** CM gland plate, depth 50 mm



Clips

for gland plates

As replacement and for additional gland plate attachments in TS, CM, TP.

Material:

Sheet steel

Surface finish:

Zinc-plated, passivated

Packs of	Model No. TS
50	8800.075



Trim panel

for CM

To conceal the entire base opening.

Note:

May be used as a cover in enclosures that are rotated through 180° (available on request).

Material:

Sheet steel

Colour:

Textured RAL 7035

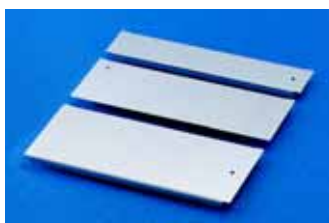
Protection category:

IP 55 to EN 60 529/09.2000

Supply includes:

Assembly parts.

For enclosure		Model No. CM
W mm	D mm	
600	300	5001.100
800		5001.110
1000		5001.120
600	400	5001.130
800		5001.140
1000		5001.150
1200		5001.160



Gland plate, multi-piece

for DK-TS, FR(i)

For optional sealing of the base area.

Any combination of gland plates is supported. Gland plates including mounting clamps; the additional installation of PE conductors is not required.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Packs of 1 set

Gland plates including sliding plate for cable entry, including sealing tape and assembly parts.

Note:

For the size variant 800 x 800 mm, the gland plate included with the supply of pre-configured network enclosures should be additionally used.

For enclosures		Model No. TS
Width mm	Depth mm	
600	900	7825.363
600	1000	7825.364
600	1200	7825.365
800	800	7825.382
800	900	7825.383
800	1000	7825.384
800	1200	7825.385



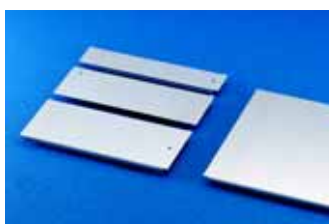
Also required:

For integration of the gland plates, there must be a base frame inside the enclosure. Base frame, divided, for retro-fitting, see page 910.



Accessories:

All gland plates with a depth of 237.5 mm may be exchanged for gland plate modules on request. Base plate modules, see page 914. Base plate modules, vented with airflow regulator, see page 915. Base module for cable entry, see page 915. Section for cable entry, see page 1046, 1047.



Gland plates

for CS Basic enclosures

For sealing the base opening and for cable entry.

Material:

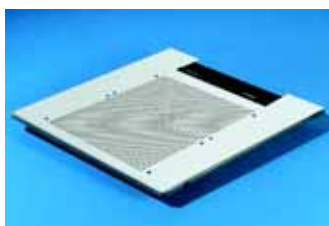
Aluminium, 2 mm.

Supply includes:

Assembly parts.

For enclosure dimensions		Packs of	Model No. CS	
Width mm	Depth mm		One-piece	Divided
600	400	1 set	9785.017	9785.011
600	500	1 set	9785.020	9785.014
800	400	1 set	9785.018	9785.012
800	500	1 set	9785.019	9785.013
1200	400	1 set	2 x 9785.017	2 x 9785.011
1200	500	1 set	2 x 9785.020	2 x 9785.014

Base



One-piece gland plate

vented, for DK-TS, FR(i)

The slotted gland plate has a cut-out in the rear for cable entry, which is concealed with brush strips.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.

For enclosures		Model No. DK
Width mm	Depth mm	
600	600	7825.660
600	800	7825.680
600	900	7825.690
600	1000	7825.610
800	600	7825.860
800	800	7825.880
800	900	7825.890
800	1000	7825.810
600	1200	7825.612
800	1200	7825.812



Accessories:

Filter mat for gland plate, see page 914.



Filter mat

for one-piece gland plate

To conceal the slotted area inside the one-piece vented gland plates for TS, FR(i). The filter mat is easily cut to the required cut-out and conveniently slides into position from the front via the guide rails of the gland plate.

Packs of	Model No. DK
1	7825.620

Material:

PPI 35-5/polyamide



Gland plate modules

for DK-TS

For use in the base frame of the network enclosure. Used in exchange for an existing gland plate of the same depth or in conjunction with a multi-piece gland plate for pre-configured TS 8 enclosures, see page 913.

Gland plate depth:

237.5 mm

Design for cable entry:

With brush strip

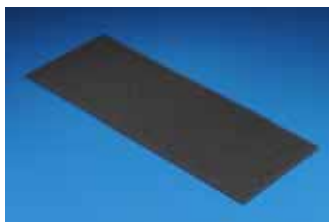
Vented design:

With filter mat for concealing the holes and nylon tape for securing from the inside or outside.

For enclosure width mm	Model No. DK	
	Design	
	For cable entry	Vented
600	7825.361	7825.360
800	7825.381	7825.380

Material:

Sheet steel, zinc-plated, passivated



Spare filter mat

for gland plate modules, vented

To be used in exchange for the existing filter mat.

Material:

PPI 35-15

Supply includes:

2 filter mats, including assembly parts.

Packs of	Model No. DK
2	7825.350



Gland plate modules, vented with airflow regulator for DK-TS, FR(i)

Allows controlled air routing from the twin base to the installed components. Individually adjustable membranes facilitate control of the air inlet opening between 10 % and 80 % free space. If the rear area of the enclosure is partitioned by base/gland plates, the required volumetric airflow may be individually regulated, and distribution of the airflow inside the twin base adapted to suit the requirements of each enclosure.

The gland plate module may be combined with all gland plates as required. Gland plate module including contacting assembly screws; the additional installation of PE conductors is not required.

Material:
Sheet steel

Supply includes:
Packs of 1
Gland plate module, vented, filter mat,
including assembly parts.



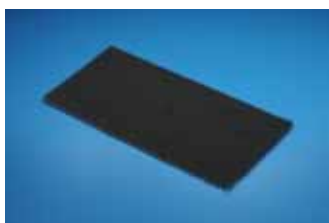
For enclosure width mm	Model No. DK
600	7825.366
800	7825.386

! Also required:

For integration of the gland plates, there must be a base frame inside the enclosure. Base frame, divided, for retro-fitting, see page 910.

+ Accessories:

Spare filter mat,
see page 915.



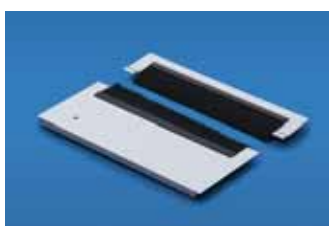
Spare filter mat for gland plate modules, vented, with airflow regulator

To be used in exchange for the existing filter mat. Easily exchanged thanks to front operation via guides.

Material:
PPI 35-5/polyamide

Supply includes:
1 filter mat
including mounting accessories.

Packs of	Model No. DK
1	7825.622



Base module for cable entry

Super-airtight for DK-TS, FR(i)

The two-part base module has a special cable entry with alternate offset brush strips which guarantee an excellent seal even with large cable quantities. This minimises the possible ingress of inappropriate air or the unintentional escape of extinguisher gas or coolant.

The two-part design allows the module plate to be removed at any time, even when cables have already been inserted, to provide access to the level beneath the rack. Base module with contacting mounting clamps; the additional installation of PE conductors is not required.



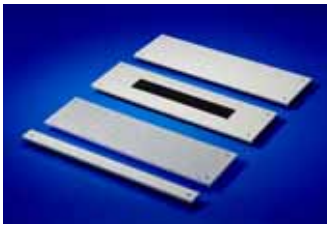
For enclosure width mm	Packs of	Model No. DK
600	1	7825.367
800	1	7825.387

Material:
Module plate: Sheet steel, zinc-plated, passivated
Brush strip: Plastic, UL 94-V0

Supply includes:
Brush strip and assembly parts.

Base

Base



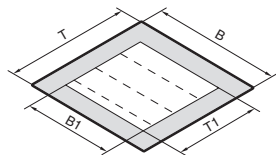
Module plates

for TE

The base area of the TE may be varied as required using the module plates.

Material:
Sheet steel

Supply includes:
Assembly parts.



Design	Width (B) mm	Depth (T) mm	Model No. TE
Solid	450	200	7526.760
	450	550	7526.770
	450	750	7526.780
	650	550	7526.785
	650	200	7526.800
With brush strip	650	750	7526.820
	450	200	7526.850
Vented	650	200	7526.860
	450	200	7526.829
Compensating panel	650	200	7526.834
	450	50	7526.750
	450	150	7526.755
	650	50	7526.790
	650	150	7526.795

Enclosure dimensions mm	B	600	600	600	800	800	800
	T	600	800	1000	600	800	1000
Base cut-out dimensions mm	B1	450	450	450	650	650	650
	T1	550	750	950	550	750	950



Pressure relief stopper

Especially when enclosures are exposed to changing climatic conditions (e.g. with outdoor siting), condensation may form in sealed enclosures due to pressure differences. The integral sealing membrane largely prevents such pressure differences and hence condensation; additionally, it also prevents the ingress of moisture from the outside.

Installed in vertical surfaces to protect against dirt.

Packs of	Model No. SZ
5	2459.500

Technical specifications:

- Air permeability up to 120 litres/hour with a pressure difference of 70 mbar
- Protection category IP 66, 68, 69K
- Connection thread M12 x 1.5
- For fitting in wall thicknesses up to 4 mm

Material:
Polyamide

Colour:
Similar to RAL 9005 (black)

Supply includes:
Lock nut



Condensate discharge

For reliable discharge from the inside and protection against splashes from the outside (labyrinth effect).

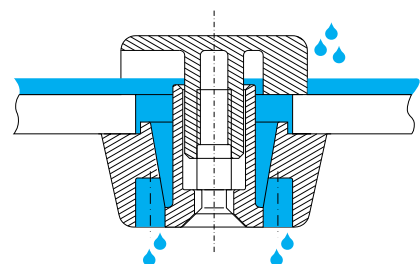
A hole diameter of 16 mm is required. (With AE sheet steel, the holes are already provided in the base).

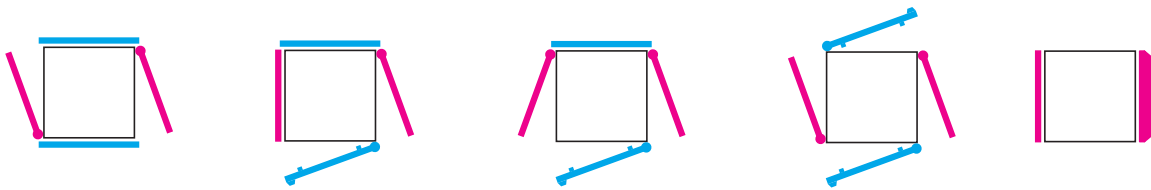
Material:
Polyamide

Colour:
Similar to RAL 7035

Protection category:
IP 55 to EN 60 529/09.2000, subject to correct mounting at the bottom.

Packs of	Model No. SZ
6	2459.000





The TS side panel provides new dimensions in convenient access to the TS interior, thanks to the option of hinging.

Important:
Red areas (side panels), hinged and unhinged, must always be opposite one another. Blue areas (doors/rear panels) must always be opposite one another.

Only one surface on each vertical enclosure section may be hinged.

Note:
Climate control side panels with integral cooling module may be retrofitted instead of an enclosure side panel, see page 635.



Side panels, screw-fastened, sheet steel

for TS

Easy positioning on the frame with the location aid. Six or eight enclosure panel fasteners with earthing insert ensure automatic potential equalisation and higher EMC protection. Earthing bolts with contact surface are integrated.

Material:
Sheet steel 1.5 mm

Surface finish:
Dipcoat-primed, powder-coated in textured RAL 7035 on the outside.

Protection category:
IP 55 to EN 60 529/09.2000

Supply includes:
Assembly parts.

Note:
Enclosure panel fasteners may optionally be fitted from the inside or outside of the enclosure. Area available for population: External dimension – 100 mm.

+ Accessories:

Earth straps, see page 1034.
Enclosure panel fasteners, internal, see page 918, for heavy installed equipment and high dynamic pressures.

German patent no. 198 01 720

For enclosures		Packs of	Model No. TS
Height mm	Depth mm		
800	600	2	8173.235
1000	600	2	8174.235
1200	500	2	8115.235
1200	600	2	8170.235
1200	800	2	8175.235
1200	1000	2	8176.235
1400	500	2	8145.235
1400	600	2	8146.235
1400	800	2	8148.235
1600	500	2	8165.235
1600	600	2	8166.235
1600	800	2	8168.235
1800	400	2	8184.235
1800	500	2	8185.235
1800	600	2	8186.235
1800	800	2	8188.235
1800	900	2	8189.235
1800	1000	2	8180.235
2000	400	2	8104.235
2000	500	2	8105.235
2000	600	2	8106.235
2000	800	2	8108.235
2000	900	2	8109.235
2000	1000	2	8100.235
2200	600	2	8126.235
2200	800	2	8128.235
2200	900	2	8129.235

For RAL 7032 version, use order extension .200; to order primed version, use extension .300. Delivery times available on request.



Automatic potential equalisation



Side panels, screw-fastened, stainless steel

for TS

To finish a complete enclosure unit. Easy attachment on the inside vertical enclosure frame member. Earthing inserts ensure automatic potential equalisation and a higher degree of EMC protection. Earth studs with contact surfaces are already included.

Material:
Stainless steel 1.4301 (AISI 304), 1.5 mm

Surface finish:
Brushed, grain 400

Protection category:
IP 55 to EN 60 529/09.2000

Supply includes:
Assembly parts.

For enclosures		Packs of	Model No. TS
Height mm	Depth mm		
1800	400	2	8700.840
1800	500	2	8700.850
2000	600	2	8700.060

To order enclosures in stainless steel 1.4404 (AISI 316L), use model no. 8705.XXX. Delivery times available on request.

Detailed drawing,
see side panels for modular front design, page 942.

+ Accessories:

Enclosure panel fasteners, internal, see page 918, for heavy installed equipment and high dynamic pressures.

Side panels



Side panels, asymmetrical for TS

The alternative to the standard side panel for improved visual appearance in the event of back-to-back, back-to-side or corner baying. The gap (A) which occurs with standard side panels is reduced to a standard dimension (B), see technical drawing. In the case of the TS 8 corner enclosure, an asymmetrical side panel is included in the supply.

The number of additional asymmetrical side panels required depends on the chosen baying variant.

Material:

Sheet steel, 1.5 mm

Colour:

RAL 7035

Protection category:

IP 55 to EN 60 529/09.2000

Supply includes:

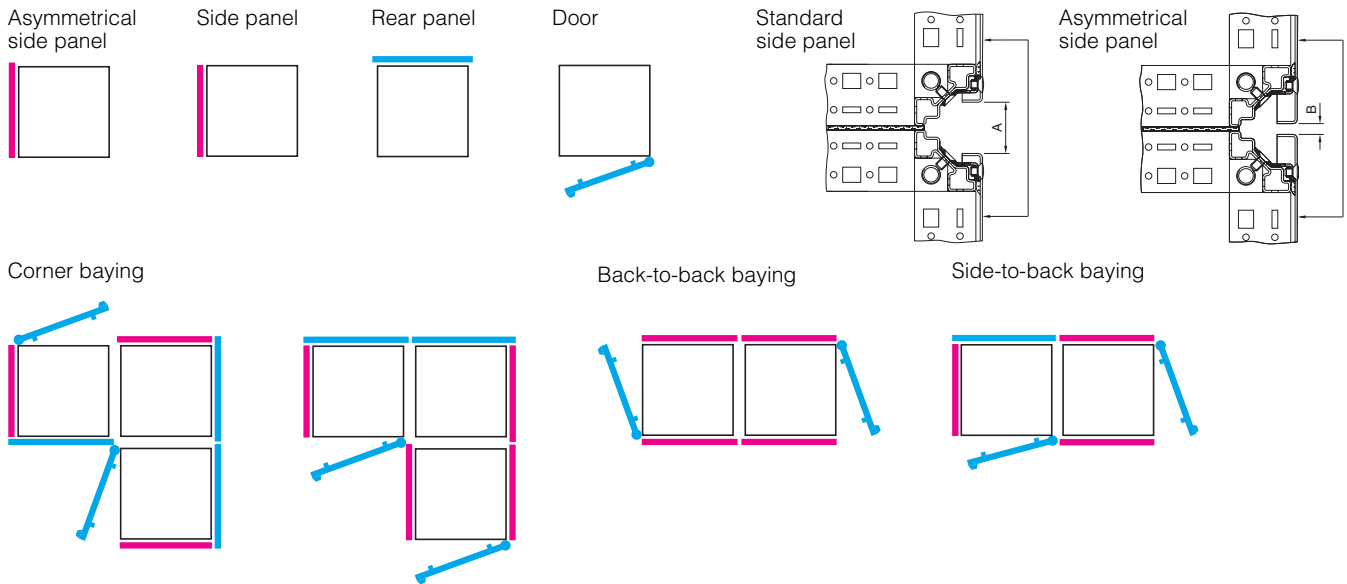
Assembly parts.

For enclosures		Packs of	Model No. TS
Height mm	Depth mm		
1800	400	2	8184.500
1800	500	2	8185.500
1800	600	2	8186.500
2000	400	2	8104.500
2000	500	2	8105.500
2000	600	2	8106.500
2000	800	2	8108.500
2200	600	2	8126.500

For RAL 7032 version, use order extension .400; to order primed version, use extension .450. Delivery times available on request.

+ Accessories:

Enclosure panel holder, internal, see page 918, for heavy installed equipment and high dynamic pressures.



Side panels



Enclosure panel fasteners, internal

for TS

for additional fixing of the side or rear panel with heavy installed equipment and high dynamic pressures.

Packs of	Model No. TS
10	8800.071



Hinges

For TS side panel, screw-fastened, sheet steel TS side panel, asymmetrical

The 180° opening angle allows unhindered access. May be installed optionally from the inside or outside of the enclosure: Simply replace 3 enclosure panel fasteners with hinges. Despite the hinge, the protection category of the enclosure is retained.

Material:

Die-cast zinc

Supply includes:

Assembly screws.

Design	Packs of	Model No. TS
RAL 7035	6	8800.110
RAL 7032	6	8800.010

**German patent no. 298 20 604
US patent no. 6,238,027**

Note:

Side panel and door hinges may only be installed on the same enclosure section when using a 180° door hinge (see page 961).

B
7.2



Side panel, plug-type

for TS

Side panel, lockable with 2 options:

- With lock
- Internal latch

Plug-&-play compatibility system – Insert side panel into the base, press upwards and rotate the two toggle locks – there is no faster way of finishing off an entire enclosure suite at the side.

Material:

Sheet steel, powder-coated

Colour:

RAL 7035/RAL 9005

Protection category:

IP 20/NEMA 1

Supply includes:

2 side panels with toggle locks.

Note:

These side panels must be notched centrally in conjunction with punched sections with mounting flange for the external level.



For enclosures		Model No. DK	
Height mm	Depth mm	RAL 7035	RAL 9005
800	600	7824.086	–
1000	600	7824.106	–
1200	600	7824.126	–
1200	800	7824.128	–
1200	900	7824.129	7816.129
1200	1000	7824.120	7816.120
1400	600	7824.146¹⁾	–
1400	800	7824.148	–
1600	600	7824.166	–
1600	800	7824.168	–
1800	600	7824.186	–
1800	800	7824.188	–
1800	900	7824.189	–
1800	1000	7824.180¹⁾	–
2000	600	7824.206	–
2000	800	7824.208	–
2000	900	7824.209	7816.209
2000	1000	7824.200	7816.200¹⁾
2200	600	7824.226	–
2200	800	7824.228	–
2200	900	7824.229	7816.229¹⁾
2200	1000	7824.220	7816.220¹⁾

¹⁾ Delivery times available on request.

+ Accessories:

TS punched section with mounting flange, 17 x 73 mm, notched, see page 994.
Internal latch DK 7824.510, see page 919.

Packs of	Model No. DK
4	7824.500



Lock

for side panel, plug-type

With security lock insert no. 3524 E, in exchange for the existing toggle locks.

Supply includes:

4 locks, 2 keys.



Internal latch

for side panel, plug-type

Additional security is achieved via the option of latching the side panel from the inside.

The side panels on the frame section are screw-fastened from the inside with latching brackets.

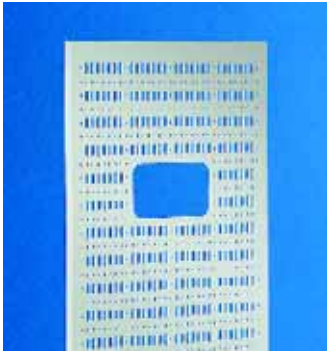
Supply includes:

Assembly parts.



For enclosure system	Packs of	Model No. DK	Model No. FR
TS	4	7824.510	–
FR(i)	4	–	7856.700

Side panels



Cable management panel

for DK-TS

The ideal, universal routing aid for network enclosures where large quantities of cables and lines are managed. Cut-outs for the attachment of cable shunting rings and nylon loop fasteners. Cable ties are available from the accessories range. With bayed enclosures, the panel may also be used as a partition with cable management facilities.

By attaching to the inner level, cables may be secured inside and out, and may also be used when a single panel is fitted.

The panel is secured to the inner mounting level of TS 8 enclosures using the assembly parts supplied. The cable management panel may be screwed to the outer mounting level on punched sections with mounting flanges.

Material:

Sheet steel, powder-coated

Colour:

RAL 7035

Supply includes:

Assembly parts.

For enclosures		Model No. DK
Width/depth mm	Height mm	
600	2000	7824.560
800	2000	7824.580
900	2000	7824.590¹⁾

¹⁾ Delivery times available on request.

Note:

Other sizes available on request.

German patent no. 100 07 470



Accessories:

Nylon loop fasteners, see page 1066.
Cable route, see page 1070.
Cable ties, see page 1066.



Side panel, plug-type

for FR(i)

The lockable side panel is simply plugged in at the side and secured via two security locks. The integral beading gives the side panels a special touch. Additional security is achieved via the option of latching the side panel from the inside. The side panels may be screw-fastened to the frame section from the inside using locking brackets FR 7856.700.

Material:

Sheet steel, powder-coated

Colour:

RAL 7035

Protection category:

IP 20

Supply includes:

Security lock 3524 E.

For enclosures		Packs of	Model No. FR
Height mm	Depth mm		
600	600	2	7856.660¹⁾
600	1000	2	7856.663¹⁾
1200	600	2	7856.666¹⁾
1200	800	2	7856.669¹⁾
1200	1000	2	7856.672
1200	1200	2	7856.673¹⁾
1800	600	2	7856.675¹⁾
1800	800	2	7856.678¹⁾
2000	600	2	7856.681¹⁾
2000	800	2	7856.684
2000	1000	2	7856.687
2000	1200	2	7856.688
2200	800	2	7856.693¹⁾
2200	1000	2	7856.696¹⁾

¹⁾ Delivery times available on request.



Accessories:

Internal latch DK 7856.700, see page 919.



Side panels

for TE

To finish off individual racks or entire bayed suites of racks at the sides.

The side panels are simply located and secured with the integral padlock.

The super-lightweight design means that it is easily handled by one person.

Material:

Sheet steel, powder-coated

Colour:

RAL 7035

Protection category:

IP 20

Supply includes:

Security lock 3524 E.

For enclosures		Packs of	Model No. TE
Height mm	Depth mm		
1200	600	2	7000.642
1200	800	2	7000.644
2000	600	2	7000.650
2000	800	2	7000.652
2200	600	2	7000.654
2200	800	2	7000.656



Divider panel

for TS

For shielding individual enclosure cells. Thanks to the symmetry of the frame system, the divider panel can also be used at the rear. All-round, double fold for stability and to hold the seal. Notches in the corners and half-way up the sides permit the use of angular baying brackets and baying brackets, even with a divider panel fitted. For mounting on the outer mounting level. This leaves the inner level free for further population.

Material:

Sheet steel, 1.5 mm, zinc-plated

Protection category:

IP 54 to EN 60 529/09.2000

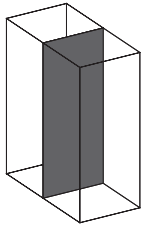
Supply includes:

Assembly parts.



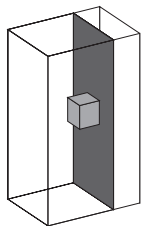
Accessories:

Cover with door, see page 925.
Baying attachment, vertical TS 8800.470 for enclosure with fitted divider panel, see page 931.

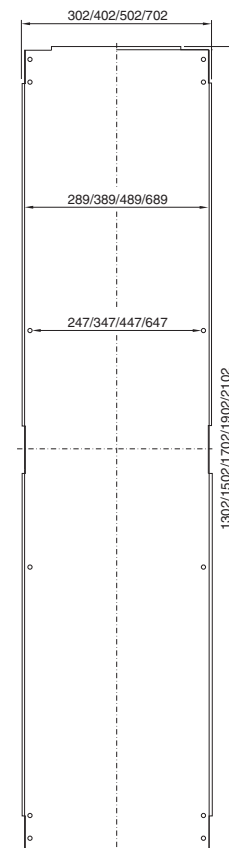


Note:

The divider panel may also be fitted to the rear. This allows, e.g. frequency converters for heat dissipation to be installed in a divider panel with the cooling units facing outwards and protected/finished off with a cover (see page 925).



For enclosures		Model No. TS
Height mm	Depth mm	
1400	500	8609.450
1600	500	8609.650
1800	400	8609.840
1800	500	8609.850
1800	600	8609.860
2000	400	8609.040
2000	500	8609.050
2000	600	8609.060
2000	800	8609.080
2200	600	8609.260



Partition

for TS

For rack mounting, suspended between two TS 8 enclosures.

With three Ø 40 mm holes in all 4 corner areas for the insertion of cable sections, conduits etc. Drilled holes may be sealed with the enclosed stepped collars. For cable entry, simply cut off at a suitable level to match the required cross-section.

Material:

Partition: Sheet steel, zinc-plated, passivated, Stepped collar: Plastic to UL 94-HB

Supply includes:

12 stepped collars Ø 40 mm.

For enclosures		Model No. DK
Height mm	Depth mm	
2000	900	7831.721
2000	1000	7831.723
2000	1200	7831.724
2200	1200	7831.726

Note:

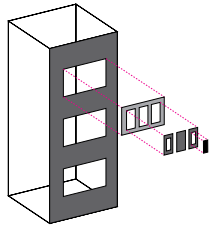
Use baying connector TS 8800.490. Not for use in conjunction with a baying seal. Any existing seals must be removed prior to installation.



Accessories:

Baying clamp TS 8800.490, see page 929.

Divider panels for module plates



The divider panel and module plate system

More options:

The cut-outs of a divider panel are individually equipped with module plates for 16-pole or 24-pole connectors, with module plates for cable entry and with solid module plates.

Faster assembly:

Usually only part of the total number of connector cut-outs are used. Thanks to the new divider panel technique the cut-outs do not need to be covered individually. The solid module plate is used instead.

The benefits: Less plates, less screws, less assembly work.



Divider panel

for module panels TS

With cut-outs for the installation of module plates for connectors or for cable entry, and also for the entry of busbar systems and other installed equipment. All-round, double fold for stability and to hold the seal. Thanks to the symmetry of the enclosure frame, divider panels may also be fitted at the rear, dimensions permitting.

For mounting on the outer mounting level. This leaves the inner level free for further population.

Material:

Sheet steel, 2 mm, zinc-plated

Supply includes:

Assembly parts and multi-tooth screws M5 x 12 mm for mounting the module plates.

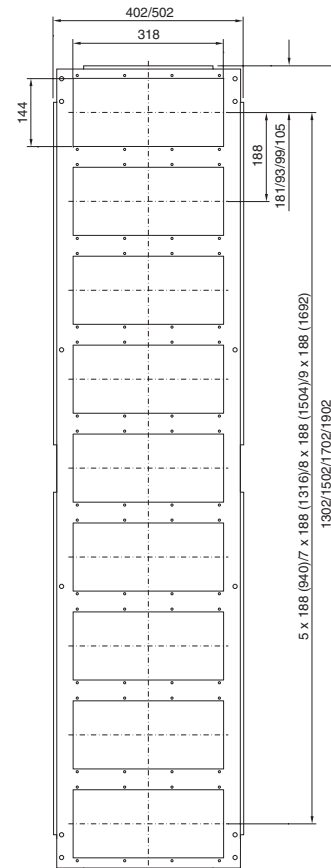
Note:

Notches in the corners and half-way up the sides permit the use of angular baying brackets and baying brackets, even with a divider panel fitted.

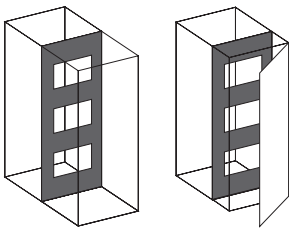


Accessories:

Module plates, see page 923 – 924.
Cover with door, see page 925.
Baying attachment TS 8800.470 for enclosure with fitted divider panel, see page 931.



Divider panels for module plates



For enclosures		Number of cut-outs	Model No. TS
Height mm	Depth mm		
1800	500	9	8609.100
1800	600	9	8609.110
2000	500	10	8609.120
2000	600	10	8609.130

Paint

For touching up and repairing powder-coated and wet-painted surfaces, air-drying.



Colour RAL	Model No. SZ		
	Touch-up pen 12 ml	Spray can 150 ml	Spray can 1000 ml
7022	–	2581.000	–
7032	2436.732	2437.000	2438.000
7035	2436.735	2440.735	2438.735
9005	2436.905	2440.905	–

Module plates

Material:

Sheet steel, 2 mm, zinc-plated

Supply includes:

Seal

Design	Cut-outs	Packs of	Model No. TS
Solid	–	1	8609.160
For 16-pole connectors	4	1	8609.150
For 24-pole connectors	4	1	8609.140
For cable entry	1	1	8609.170
For cable entry grommets	4	1	8609.190



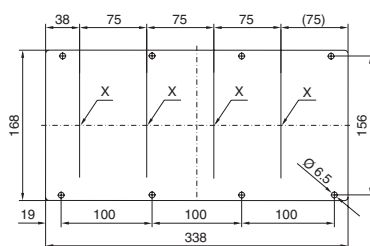
solid

For sealing unused cut-outs. Easily machined for individual cut-outs.



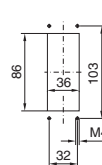
for 16/24-pole connectors

With cut-outs to accommodate connectors. In addition to mounting on divider panels, module plates may also be attached to the 25 mm pitch pattern of the enclosure and to the rails of the TS/PS system.

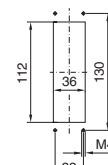


Accessories:

Adaptor, cover plate, see page 925.
Connector gland for connector cut-outs, see page 1057.



X 16-pole

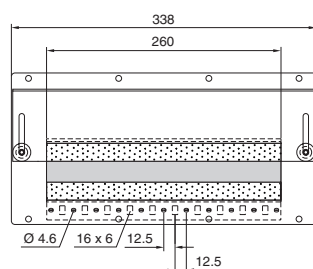


X 24-pole



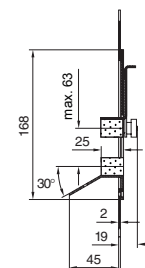
for cable entry

For the entry of pre-assembled cables. Sealed, routing is achieved via adjustable angle brackets with inserted foam cable clamp strip. Attachment bracket, punched, for cable clamping.



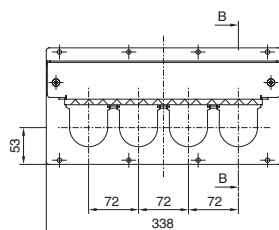
Accessories:

Cable tie for fast assembly SZ 2597.000, see page 1066.



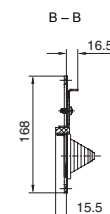
for cable entry grommets

For mounting on the divider panel for module panels TS. Slide the grommets into the cut-outs, slide the clamp plate with seal down over them, and screw-fasten.



Also required:

Cable entry grommets, see page 1046
or connector grommets, see page 1046.



Module plates

Module plates, divided

Now available in "half" versions for even more flexibility as the different versions can be combined with any of the others.

May optionally be installed in:

- TS divider panel for module plates, see page 922.
- Gland plate with sealing bar, see page 912.

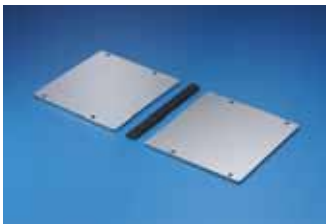
Material:

Sheet steel, zinc-plated, passivated

Supply includes:

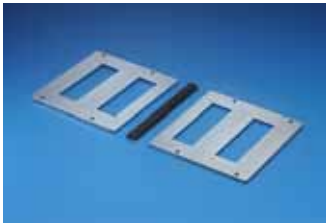
Assembly parts and seals.

Design	Cut-outs	Packs of	Model No. TS
2 x sealed	–	1 set	8609.360
2 x for 16-pole connectors	4	1 set	8609.350
2 x for 24-pole connectors	4	1 set	8609.340
1 x with cable sleeve, 1 x solid	–	1 set	8609.390



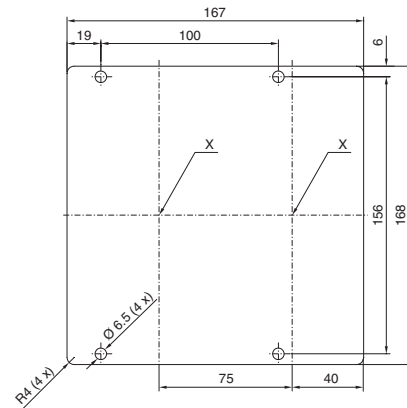
solid

For sealing unused cut-outs. Easily machined for individual cut-outs.



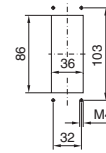
for 16/24-pole connectors

With cut-outs to accommodate connectors. In addition to mounting on divider panels, module plates may also be attached to the 25 mm pitch pattern of the enclosure and to the rails of the TS/PS system.

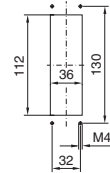


Accessories:

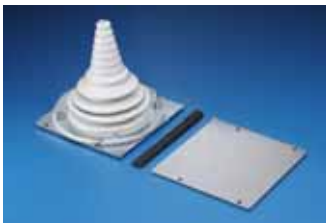
Adaptor, cover plate, see page 925.
Connector gland for connector cut-outs, see page 1057.



X 16-pole

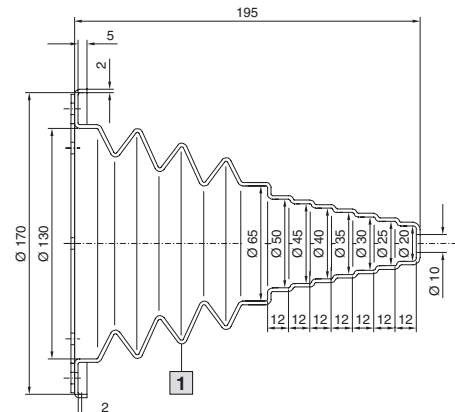
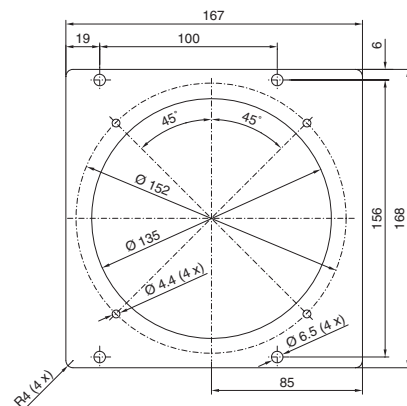


X 24-pole



with cable grommet/sealed

For 10 – 65 mm cable diameters. The flexible grommet adapts to the cable's bending radius. The sealed half can be exchanged for other versions (see above).





Adaptor

for connector cut-outs

For using connectors with varying numbers of poles.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Seal for adaptor and assembly parts.

For reduction	Packs of	Model No. SZ
From 24 to 16 poles	5	2479.000
From 24 to 10 poles	5	2480.000
From 24 to 6 poles	5	2481.000
From 16 to 10 poles	5	2401.000
From 16 to 6 poles	5	2402.000



Cover plate

for connector cut-outs

For unused cut-outs.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Seal and assembly parts.

For	Packs of	Model No. SZ
24-pole cut-outs	20	2477.000
16-pole cut-outs	20	2478.000



Partition

for DK-TS

For side partitioning of bayed TS server enclosures.

Up to 8 cable glands to the adjacent rack are possible, covered with blanking plates.

Material:

Sheet steel, zinc-plated, passivated

For enclosures		Packs of	Model No. DK
Height mm	Depth mm		
2200	900	1	7831.715



Cover with door

for TS

To protect and finish off connectors or other installed equipment. 200 mm wide cover, with opening at the top or bottom for cable entry including a cover plate for unused openings.

Material:

Sheet steel

Cover: 1.5 mm

Door: 2.0 mm

Colour:

7035 textured

Supply includes:

Cover, door with locking rod and double-bit lock insert, 1 cover plate for the top or bottom.

Note:

May also be fitted at the rear to extend the enclosure depth. To cover the resultant gap, we recommend asymmetrical side panels (see page 918). In this way, for example, frequency converters to dissipate heat may be installed in a divider panel (see page 921) with the heat sinks facing outwards and protected/concealed with a cover.

For enclosures		Model No. TS
Height mm	Depth mm	
2000	500	8609.020
2000	600	8609.030

For primed version, please add extension .XX1 to the model no.

Delivery times available on request.



Accessories:

Lock inserts, version F

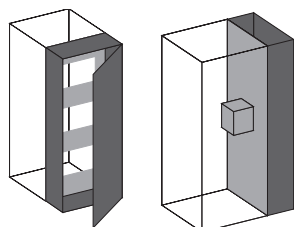
see page 956.

Comfort handle,

see page 947.

180° hinge,

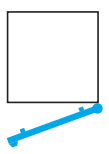
see page 961.



Baying system

for TS 8

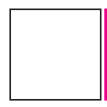
Versatile door and side panel concept



Door with lock



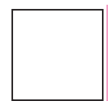
Rear panel



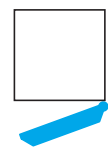
Side panel



Hinged side panel



Side panel, asymmetrical



Climate control door



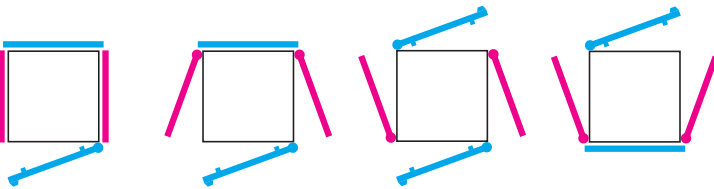
Climate control side panel



Adjacent door

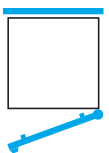
Important:

- Red areas (side panels, hinged and unhinged) must always be opposite one another.
- Blue areas (doors/rear panels) must always be opposite one another.



The versatile door and side panel concept also applies to the following baying variants:

... infinite possibilities



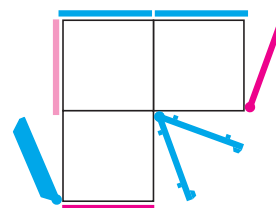
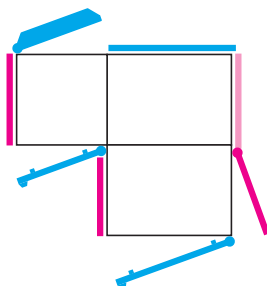
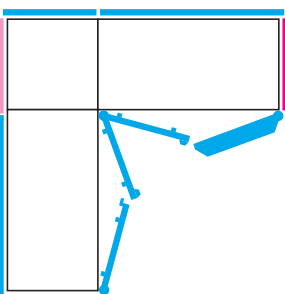
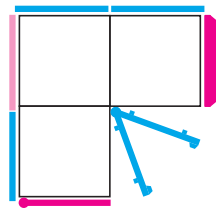
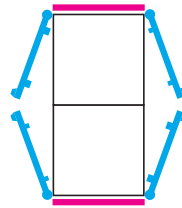
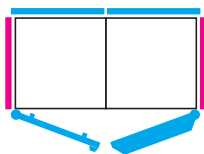
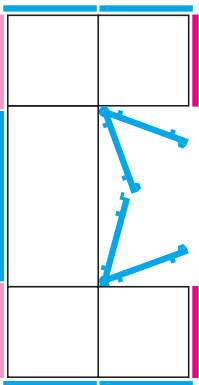
TS 8 standard enclosure



TS 8 standard enclosure with modular climate control concept



TS 8 corner enclosure



for TS 8

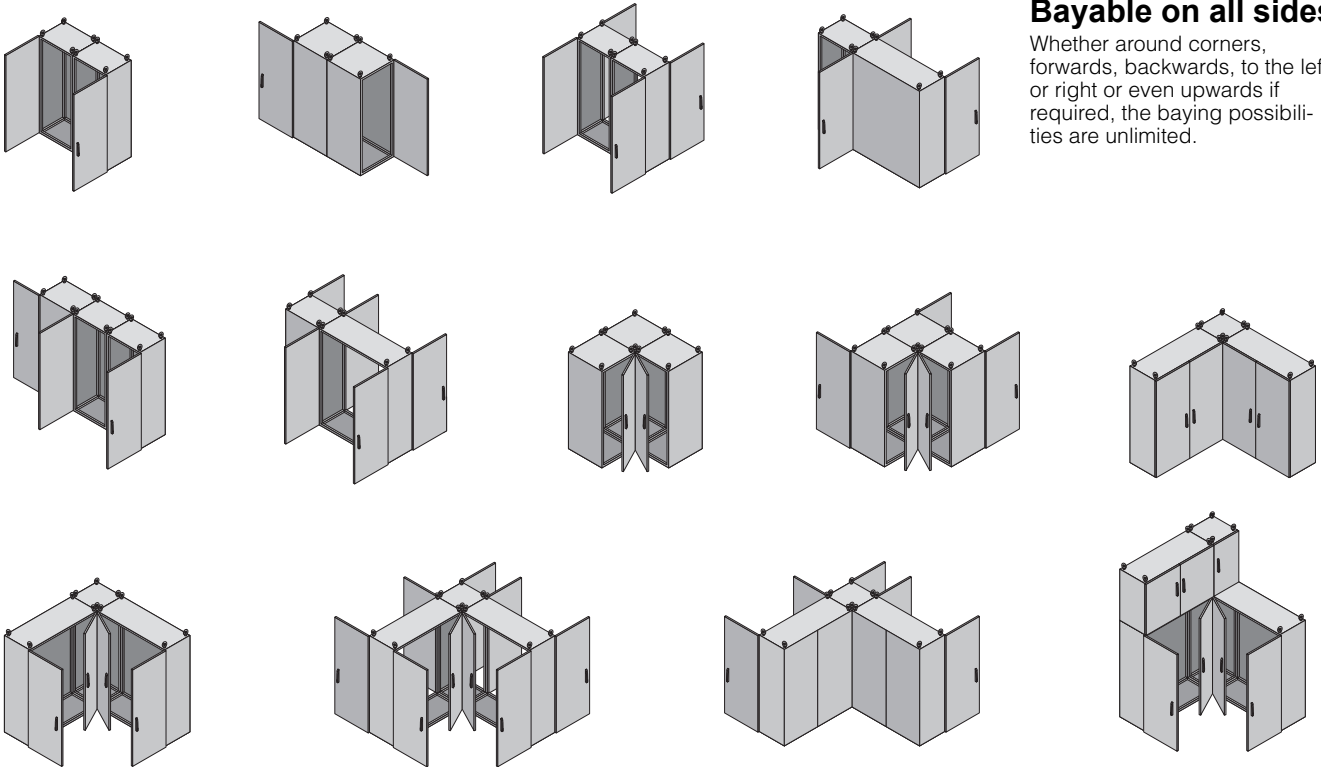
B
7.3

Baying system

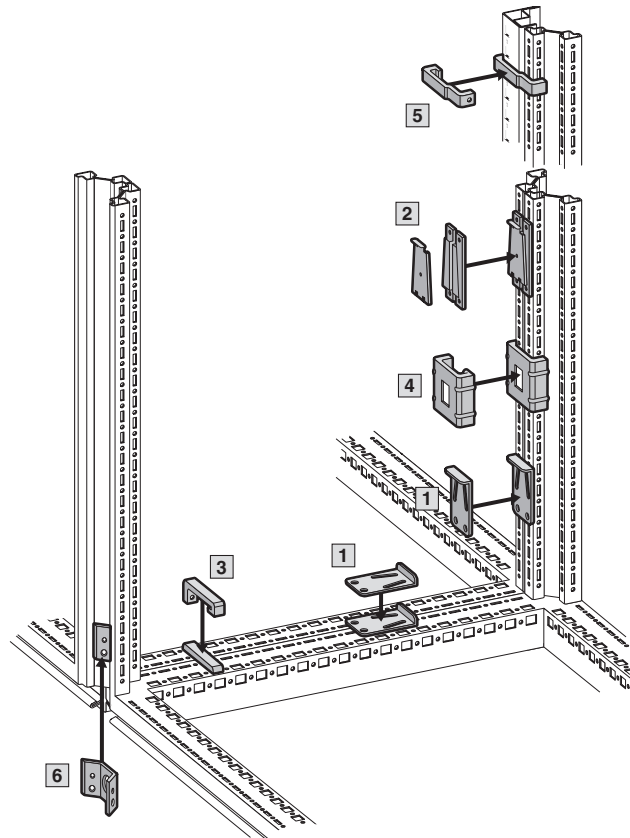
Baying at the installation site

Bayable on all sides

Whether around corners, forwards, backwards, to the left or right or even upwards if required, the baying possibilities are unlimited.



For baying at the installation site or for provisional siting in the workshop

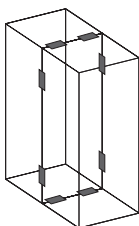


- 1 Quick-fit baying clamps, one-piece
- 2 Quick-fit baying clamps, three-piece
- 3 Baying clamp, horizontal
- 4 Baying clamp, vertical for TS/TS
- 5 Baying clamp, vertical for TS/PS
- 6 Baying connector, external

Notes on the transport of bayed enclosures, see page 929.

Baying system

Baying at the installation site



1 Quick-fit baying clamps, one-piece

for TS/TS and FR(i)/FR(i)

Simply attach the screws, insert the quick-fit baying clamp, tap in with a hammer and lock.

Material:

Sheet steel, zinc-plated, passivated

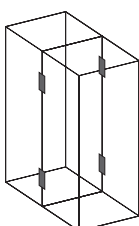
Supply includes:

Assembly parts.

Packs of	Model No. TS
6	8800.500

Note:

Only for mounting on vertical enclosure sections of FR(i).



2 Quick-fit baying clamps, three-piece

for TS/TS

Simply locate, connect with the lock plate, and secure.

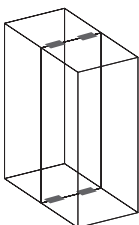
Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.

Packs of	Model No. TS
6	8800.590



3 Baying clamp, horizontal

for TS/TS, TS/PS and FR(i)/FR(i)

For mounting on the horizontal enclosure sections.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

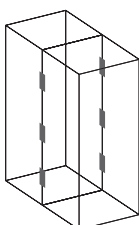
Assembly parts.

Packs of	Model No. TS
4	8800.400

German patent no. 197 35 251

French patent no. 98 104 58

Jap. patent no. 2 965 975



4 Baying clamp, vertical

for TS/TS

For mounting on the vertical enclosure sections.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

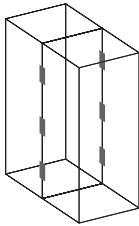
Assembly parts.

Packs of	Model No. TS
6	8800.410

German patent no. 197 35 251

French patent no. 98 104 58

Jap. patent no. 2 965 975



5 Baying clamp, vertical for TS/PS

For mounting on the vertical enclosure sections.

Material:
Sheet steel, zinc-plated, passivated

Supply includes:
Assembly parts.

Packs of	Model No. TS
6	8800.420

German patent no. 198 01 185
US patent no. 6,435,759
European patent no. 104 8098
with validity for FR, GB, IT



6 Baying connectors, external for TS/TS

For mounting on the vertical enclosure sections.

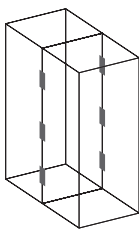
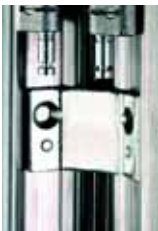
Simply position on the outside and screw-fasten either from the inside or outside.

Material:
Sheet steel, zinc-plated, passivated or stainless steel 1.4301 (AISI 304)

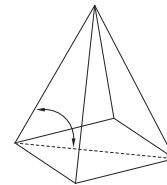
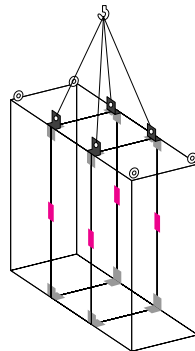
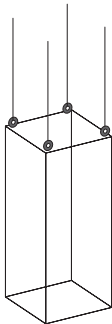
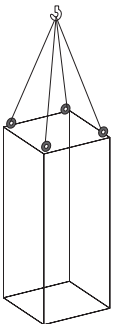
Supply includes:
Assembly parts.

Design	Packs of	Model No. TS
Sheet steel	6	8800.490
Stainless steel	6	8700.000

German patent no. 197 37 668



Note on the transport of bayed enclosures



Individual enclosures may be safely transported using the eyebolts included with the supply.

For symmetrical loads, the following maximum permissible loads apply:
for 45° cable pull angle 4,800 N,
for 60° cable pull angle 6,400 N,
for 90° cable pull angle 13,600 N.

For the enclosure combination with angular baying brackets, quick-fit baying clamps and combination angles shown here, the load capacity with a cable pull angle of 60° is as follows:

for the left-hand enclosure 7,000 N,
for the central enclosure 14,000 N,
for the right-hand enclosure 7,000 N.

The cable pull angle between the roof plate and the cable has a significant influence on the total permissible load.

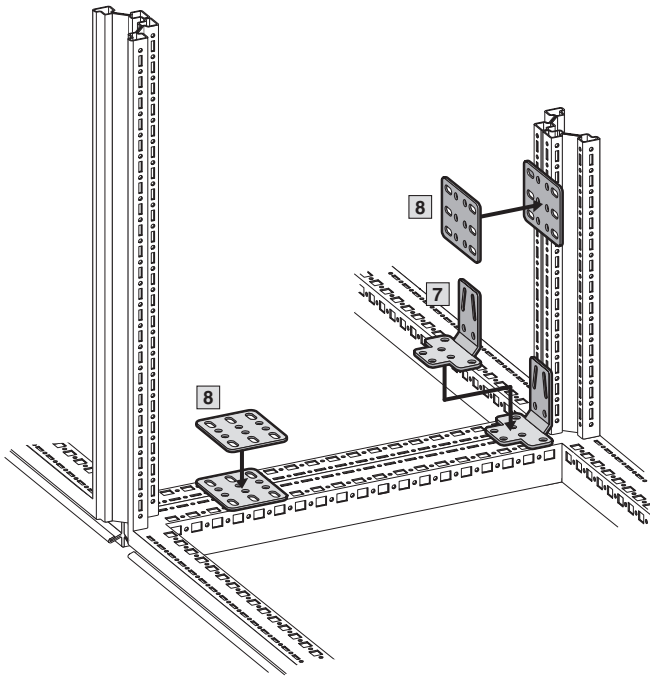
The cable pull angle must not be less than 45°, and where possible, should be less than 60°.

Note:

The eyebolts must be aligned in the direction of the cable pull.
For larger baying combinations, we recommend the use of a transport base/plinth, see page 900.

Baying system

Baying for transport



When transporting bayed enclosures

- 7** Baying bracket for TS/TS
- 8** Baying bracket for TS/TS and TS/PS

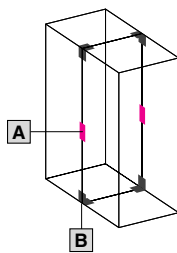
Note:

- In addition, the outer baying connector (see page 929), can be used.
- When transporting large, heavy enclosure combinations by crane, we additionally recommend the use of combination angles TS 4540.000, see page 931.

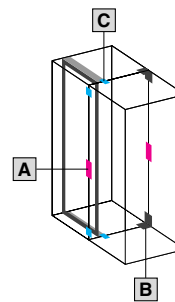
! Also required:

For protection category IP 55: One connector/clamp is required half-way up the enclosure height, see page 928. Baying clamp, see page 928 – 929.

Notes on the transport of bayed enclosures, see page 929.

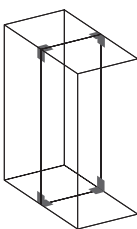


- A** 2 quick-fit baying clamps **TS 8800.500** (see page 928).
- B** 4 baying brackets **TS 8800.430** (see page 930).



- A** 2 quick-fit baying clamps **TS 8800.500** (see page 928).
- B** 2 baying brackets **TS 8800.430** (see page 930).
- C** 4 baying brackets **TS 4582.500** (see page 930) if the angular baying brackets cannot be fitted in the foremost installation position due to installed equipment such as large swing frames.

Baying for transport



7 Angular baying brackets for TS/TS

The robust connection when transporting bayed enclosure suites.

Screw-fastening may be optionally

- Horizontally and vertically with 8 screws
- Horizontally with 2 screws and M8 threaded blocks, vertically with 4 screws.

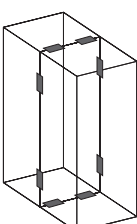
Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.

Packs of	Model No. TS
4	8800.430



8 Baying brackets for TS/TS and TS/PS

For additional stabilisation, or in cases where:

- Mounting plate brackets
 - Swing frames
 - Busbar supports
- prevent the installation of angular baying brackets.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

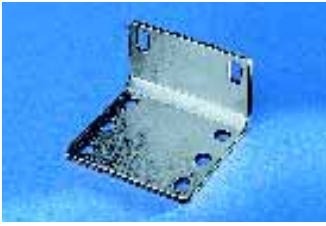
Assembly parts.

Packs of	Model No. TS
4	4582.500

+ Accessories:

For mounting on the vertical TS enclosure section: Snap-on nut M8, TS 8800.808, see page 1005.

B
7.3



Angular baying brackets

The alternative to baying bracket TS 4582.500 and for individual interior installations.

Material:
Sheet steel, zinc-plated, passivated

Supply includes:
Screws M8 x 16 mm.

Packs of	Model No. PS
4	4582.000

! **Also required:**

For mounting on:
Horizontal TS enclosure section
cage nuts/threaded blocks M8, see page 1010,
vertical TS enclosure section
snap-on nuts M8, TS 8800.808, see page 1005.



Combination angle

For optimum distribution of tensile forces during transportation of bayed enclosures by crane.

Material:
Sheet steel, zinc-plated, passivated

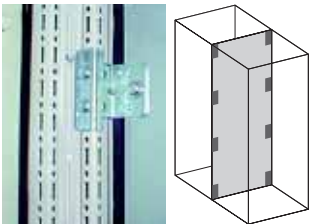
Supply includes:
Assembly parts.

Packs of	Model No. TS
4	4540.000

+ **Accessories:**

Top baying cover,
see page 932.

Notes on the transport of bayed enclosures,
see page 929.



Baying attachment, vertical

for TS/TS with divider panel

Only suitable for mounting in conjunction with the angle brackets of the divider panel (included with the supply).

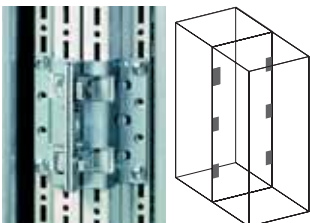
Material:
Sheet steel, zinc-plated, passivated

Supply includes:
Assembly parts.

Packs of	Model No. TS
8	8800.470

Note:

May also be used for side or wall attachment/
fastening of enclosures. In such cases, additional
holes must be drilled in the side or rear panel.



Baying attachment, vertical

for TS/TS

For baying two populated enclosures on the vertical enclosure section.
Simply locate into the vertical TS punchings,
secure and connect both brackets by using the
hex screws (supplied loose).
Using the fastening bolts, the enclosure is pulled
into a defined end position, with a height or side
offset of up to ± 2 mm.

Packs of	Model No. TS
6	8800.670

Material:

Sheet steel 3 mm, zinc-plated, passivated.

Supply includes:
Assembly parts.



Baying clamp, horizontal

for back-to-back mounting

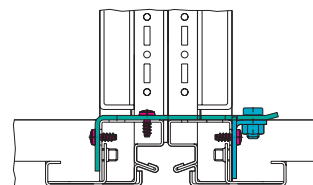
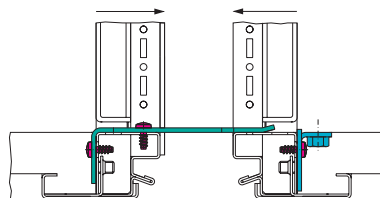
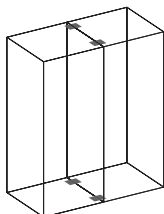
Two-piece, for on-site assembly of enclosures
with mounting plate in the rearmost installation
position.

Material:
Sheet steel, zinc-plated, passivated

Supply includes:
Assembly parts.

Packs of	Model No. TS
4	8800.170

German patent no. 10 157 979



Baying system

Baying



Baying cover, top

A cover with two end caps may additionally be clipped over the seal between the two enclosures. This prevents dirt and liquid from collecting on the baying seal.

Material:

Cover section: Sheet steel, spray-finished or stainless steel 1.4301 (AISI 304)
End caps: Plastic

Note:

May also be fitted in the width with enclosure suites bayed back-to-back.

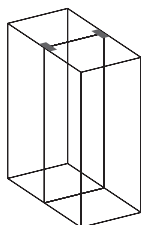
May also be used in conjunction with dust guard trim, see page 970.



For enclosure depth mm	Packs of	Model No. TS		
		RAL 7032 ¹⁾	RAL 7035	Stainless steel
400	1	8800.440	8800.840	8700.140
500	1	8800.450	8800.850	8700.150
600	1	8800.460	8800.860	8700.160
800	1	8800.480	8800.880	–
900	1	–	8800.890	–
1000	1	–	8800.892	–

¹⁾ Delivery times available on request.

German patent no. 197 37 667
US patent no. 6,312,068
European patent no. 10 12 935
with validity for FR, IT



Baying connectors, external for DK-TS/DK-TS with side panels

For retrospective baying of enclosures with screw-fastened or plug-type side panels.

Material:

Sheet steel

Colour:

RAL 7035

Supply includes:

Assembly parts.

Packs of	Model No. DK
4	7824.540

Note:

Plug-type side panels only in conjunction with lock DK 7824.500, see page 919.



Compensating panel for TS

The panel is screw-fastened to the outside of the enclosure frame and serves as an infill panel when baying 2000 mm high enclosures of varying depths. No seal between the enclosures.

Material:

Sheet steel

Colour:

RAL 7035

Supply includes:

Assembly parts.

Depth difference mm	Model No. DK
100	7067.100¹⁾
200	7067.200

¹⁾ Delivery times available on request.

Baying



Baying kit for FR(i)/FR(i)

For mounting on the vertical enclosure sections.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.

Packs of	Model No. FR(i)
4	7856.752

B
7.3



Baying kit for TE/TE

For connecting individual enclosures into bayed suites at the sides. The enclosures are connected between the base and roof frame.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.

Packs of	Model No. TE
4	7000.640



TS 8 corner enclosures

The corner enclosure and the supplied components will accommodate the various baying options of the TS 8 frame on all outer surfaces. Fitted with a rear panel and an asymmetrical side panel (see page 918, mounted on the l/h side), the corner enclosure also permits the option of baying in both the width and depth.

The gland plates are aligned parallel to the rear panel. In TS 8 enclosures with a square footprint, the gland plates may also be rotated through 90°. The baying system is identical to all other TS 8 enclosures.

Material:

Sheet steel, 1.5 mm

Surface finish:

Dipcoat primed, powder-coated in textured

RAL 7035 on the outside

Gland plates: Zinc-plated

Supply includes:

Enclosure frame with roof, rear panel (on the longest side), asymmetrical side panel, gland plates (divided lengthwise).

Width mm	Height mm	Depth mm	Model No. TS
400	1800	400	8484.300
500	1800	400	8584.300
600	1800	400	8684.300
500	1800	500	8585.300
600	1800	500	8685.300
600	1800	600	8686.300
400	2000	400	8404.300
500	2000	400	8504.300
600	2000	400	8604.300
800	2000	400	8804.300
500	2000	500	8505.300
600	2000	500	8605.300
800	2000	500	8805.300
600	2000	600	8606.300
800	2000	600	8806.300
600	2200	600	8626.300

Delivery times available on request.



Accessories:

TS base/plinth,

see page 892.

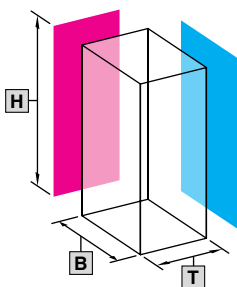
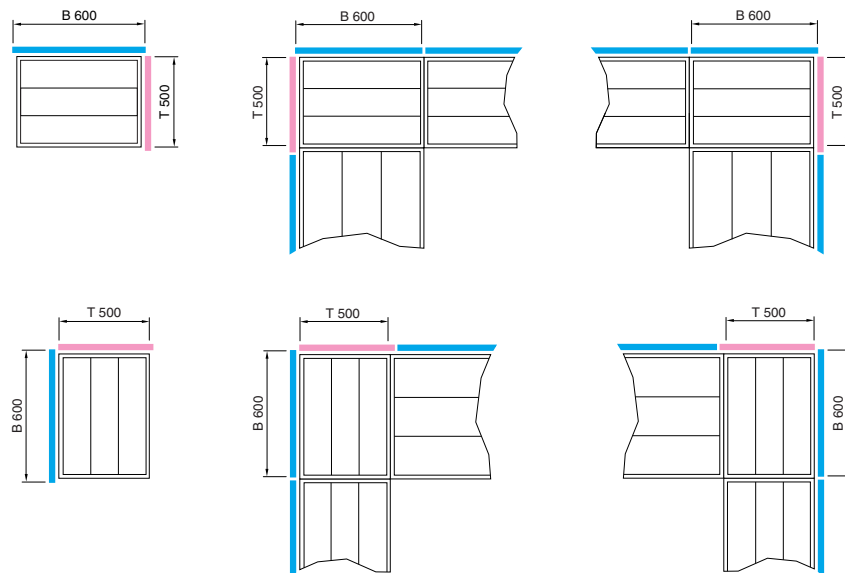
Base/plinth infill panel,

see page 897.

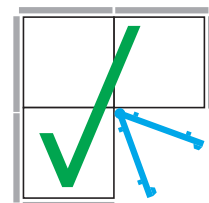


Baying examples

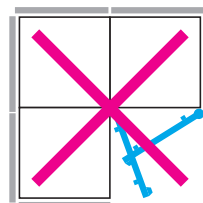
TS 8 corner enclosures



Caution!



Correct



Incorrect

B = Width
T = Depth

Door variants



Glazed door

for TS

Instead of a sheet steel door or rear panel.

Design:

Frame:

Extruded aluminium section,
die-cast zinc corner pieces,
powder-coated in RAL 7035
Single-pane safety glass,
3 mm thick,
printed mask on the inside
RAL 7015

Locking-rod with double-bit insert
180° hinges (4)

Visible area:

W – 140 mm,
H – 160 mm.

Protection category:

IP 55 to EN 60 529/09.2000

German registered design

no. M 98 03 844

IR reg. design no. DM/045 440

with validity for BE, FR, NL, HU, LU

UK reg. design no. 2 076 673

South Korean. reg. design no. 0 240 621

Russian reg. design no. 46 300

Japan reg. design no. 1 056 165

US design patent no. 418 608



Handle adaptor

The handle adaptor compensates for the design chamfer in the door profile to enable installation of the comfort handle.

Material:

Plastic

Supply includes:

1 adaptor plate,
1 extension for drive,
2 assembly screws.

For enclosures		Model No. TS
Width mm	Height mm	
600	1800	8610.680
800	1800	8610.880
600	2000	8610.600
800	2000	8610.800
600	2200	8610.620
800	2200	8610.820



Also required:

When mounting instead of the rear panel:
Lock components for frame TS 8800.040,
see page 934.



Accessories:

Lock inserts, version F,
see page 956.
Comfort handle,
see page 947.

for glazed door TS

Colour	Model No. TS
RAL 7035	8611.080
RAL 8019	8611.090

for designer door IW and PC-TS, bottom door

Colour	Model No. PC
RAL 7035	8611.300

for glazed door IW

Colour	Model No. IW
RAL 7035	6903.170



Lock components

for frame TS

For retrofitting a glazed door or sheet steel door in place of a rear panel.

Material:

Die-cast zinc

Supply includes:

Assembly screws.

Packs of	Model No. TS
4	8800.040



Designer glass door, 180°

for DK-TS

- Facilitates monitoring of on-going processes.
- Door opening angle when bayed 180° – optimised design of escape routes.
- Rear all-round cable duct integrated inside the frame section.
- Concealed cable routing to the installed electronic equipment.
- Form-fit hinges integrated into the frame section.
- A high standard of security thanks to
 - Four-point locking
 - Lock handle for semi-cylinder
 - Optional electronic lock and sensor systems

Material:

Aluminium frame section,
3 mm single-pane safety glass

Colour:

RAL 7035

Supply includes:

Lock system with security lock insert no. 3524 E and assembly parts.

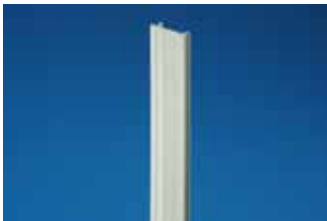


For enclosures		Model No. DK
Width mm	Height mm	
600	800	7824.628
600	1000	7824.630
600	1200	7824.632
600	1400	7824.634
600	1600	7824.636
600	1800	7824.638
600	2000	7824.640
600	2200	7824.642
800	1000	7824.830
800	1200	7824.832
800	1400	7824.834
800	1600	7824.836
800	1800	7824.838
800	2000	7824.840
800	2200	7824.842



Accessories:

Cover section for cable duct DK 7824.850, see page 935.
Semi-cylinder, see page 957.



Cover section

for cable duct, designer glazed door, 180°

For optional sealing of the cable duct within the designer glazed door, 180°.

The pack is comprised of various pieces which together are sufficient to seal the cable duct of a door with the dimensions H x W 2200 x 800. Other sizes can be achieved by cutting to length. Connection is toolless by simply clipping into the strip.

Material:

Plastic, RAL 7035

Supply includes:

6 pieces of 1000 mm, for cutting to length and combining.



Packs of	Model No. DK
1 set	7824.850



Mounting adaptor

for designer glazed door, 180°

For the attachment of

- Comfort handle,
- Comfort handle with coded lock or
- Electromagnetic comfort handle

A mounting adaptor is required on the designer glazed door.

This mounting adaptor allows installation of the comfort handle series by simply snapping into position instead of the existing handle system.

Packs of	Model No. DK
1	7824.610

Material:

Die-cast zinc

Door/locks

Door variants



Sheet steel door

for DK-TS

To replace existing doors. With 180° hinges and swivel handle with security lock no. 3524 E, in exchange for comfort handle.

Material:
Sheet steel

Colour:
RAL 7035

Protection category:
IP 55 to EN 60 529/09.2000

Supply includes:
Assembly parts.

For enclosures		Model No. DK
Width mm	Height mm	
600	2000	7824.205
800	1200	7824.127
800	2000	7824.207
600	2200	7824.225
800	2200	7824.227

Accessories:

Comfort handle, see page 947.
180° hinge for bayed TS enclosure suites with comfort handle, see page 962.



Sheet steel door, vented

for DK-TS

With 180° hinges and swivel handle with security lock no. 3524 E, in exchange for comfort handle. For optimum air throughput in network enclosures with a high proportion of active components. Slotted surface (SWG-6.7 hexagon) with air inlet openings >78 %.

Material:
Sheet steel

Colour:
RAL 7035

Supply includes:
Assembly parts.

For enclosures		Model No. DK
Width mm	Height mm	
600	1200	7824.123¹⁾
600	1800	7824.183
800	1200	7824.124
800	1800	7824.184
600	2000	7824.203
800	2000	7824.204
600	2200	7824.223
800	2200	7824.224

¹⁾ Delivery times available on request.

Accessories:

Comfort handle, see page 947.
180° hinge for bayed TS enclosure suites with comfort handle, see page 962.



Glazed door, vented

for DK-TS

With 180° hinges and comfort handle with security lock no. 3524 E. For optimum air throughput in network enclosures with a low proportion of active components.

Material:
Sheet steel, spray-finished
Viewing window of 3 mm single-pane safety glass, side slotted surfaces (SWG-6.7 hexagon) for air inlet.

Colour:
RAL 7035

Supply includes:
Assembly parts.

For enclosures		Model No. DK
Width mm	Height mm	
600	1200	7824.121¹⁾
600	1800	7824.181¹⁾
800	1800	7824.182¹⁾
600	2000	7824.201
800	2000	7824.202
600	2200	7824.221
800	2200	7824.222

¹⁾ Delivery times available on request.

Accessories:

180° hinge for bayed TS enclosure suites with comfort handle, see page 962.



Adaptor door

for DK-TS

With 180° hinges and comfort handle with security lock no. 3524 E. To extend the enclosure depth by 100 mm. This creates the necessary free space at the rear for retro-fitting deep-build active components or space for system-compatible cabling at the front. Retro-fitting with deeper components is therefore easily achieved whilst in operation. The adaptor door is vented across the surface. Slotted surface (Ø 5 mm), air inlet opening >60 %.
Simple cable routing via brush strips top and bottom.

Material:

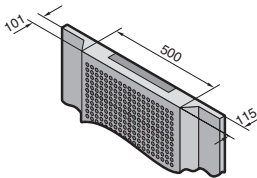
Sheet steel

Colour:

RAL 7035

Supply includes:

Assembly parts.



For enclosures		Model No. DK
Width mm	Height mm	
800	2000	7824.780

Note:

Other sizes and side adaptor available on request.



Sheet steel door, vertically divided

for DK-TS

With 130° hinges and locking rod including comfort handle for semi-cylinder with security lock no. 3524 E. Thanks to the minimal rotation radius of the individual doors, the distance between individual bayed enclosure suites may be reduced. The extensive door perforations additionally support climate control of the installed equipment. Slotted surface with air inlet opening >78 %.

Material:

Sheet steel

Protection category:

IP 55 to EN 60 529/09.2000 (unvented)

IP 20 to EN 60 529/09.2000 (vented)

Colour:

RAL 7035

Supply includes:

Assembly parts.

For enclosures		Model No. DK	
Width mm	Height mm	Vented	Unvented ¹⁾
600	2000	7824.360	7816.360
600	2200	7824.362	7816.362
800	2000	7824.380	7816.380
800	2200	7824.382	7816.382

¹⁾ Without tubular door frame.

Tubular door frame available on request.



Accessories:

180° hinge TS 8800.190,
see page 961.



All-glass door, vertically divided

for DK-TS

With 180° hinges and locking rod including comfort handle with security lock no. 3524 E. Thanks to the minimal rotation radius of the individual doors, the distance between individual bayed enclosure suites may be reduced. When baying, an external 180° hinge is required.

Material:

5 mm single-pane safety glass,
frame of aluminium frame elements.

Colour:

Frame elements, RAL 7035

Viewing windows tinted, parsol grey.

Supply includes:

Assembly parts.

For enclosures		Rotation range ¹⁾	Model No. DK
Width mm	Height mm		
800	2000	180°	7824.490

¹⁾ Stand-alone siting

Note:

Not to be used in conjunction with a swing frame.

Door/locks

Door variants



Lockable and adjacent door

for TS

For example, if two 400 mm doors instead of one 800 mm wide door are used to comply with escape routes.

Material:
Sheet steel

Surface finish:
Dipcoat-primed, powder-coated on the outside.

Supply includes:
2 doors including hinges and lock parts.

For enclosures		Colour RAL	Model No. TS
Width mm	Height mm		
800	2000	7035	8801.450

Note:
Enclosure without door (TS 8806.512), see page 149.

+ Accessories:

Lock system, see page 947.



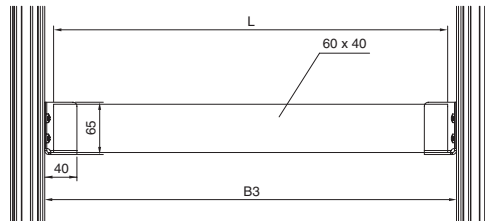
Protective bar

for TS

As an alternative to a door, e. g. in sealed switch rooms. Prevents people from falling into the open enclosure frame. Easily removable for maintenance purposes.

For 1200 mm enclosure width; may be shortened or divided for other sizes.

Material:
Wood, spray-finished, RAL 3000



For enclosure width mm	Length mm	Packs of	Model No. TS
1200	1090	1	8801.010

Enclosure width mm	Clearance between the enclosure frame (B3) mm	Length protective bar (L) mm
400	312	290 ¹⁾
600	512	490 ¹⁾
800	712	690 ¹⁾
1000	912	890 ¹⁾
1200	1112	1090

¹⁾ The protective bar TS 8801.010 (1090 mm) will need to be shortened.



Holder

for protective bars

For location into the vertical TS section. The protective bar is simply inserted.

Material:
Sheet steel, zinc-plated, passivated

Supply includes:
Assembly screws.

Packs of	Model No. TS
2	8801.000

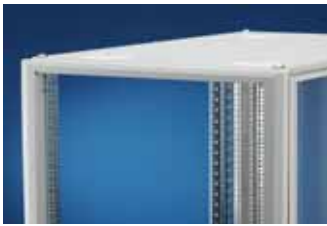


Variable modular climate control concept

Instead of an enclosure door in a 600 mm/800 mm/1200 mm wide and 1800 mm/2000 mm high TS enclosure, section doors with integral cooling module may be retrofitted without major assembly work.

↔ Possible alternative:

Modular climate control concept see page 634.



Trim frame

for TS

To conceal the TS 8 front frame in enclosures without a door. Can be combined with large swing frame.

Possible application areas include, for example:

- Studio technology
- Electronic configuration

Material:

Sheet steel

Colour:

RAL 7035

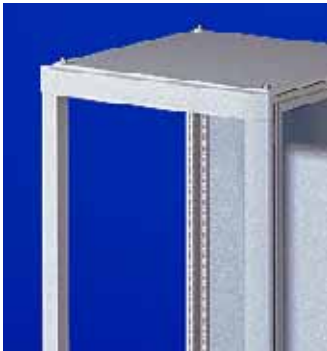
Supply includes:

Assembly parts.

For enclosures		Model No. DK
Width mm	Height mm	
600	2000	7824.130
800	2000	7824.132

Note:

The trim frame conceals the system punchings at the sides in the inner mounting level. The TS punched sections with mounting flange 23 x 73 mm (see page 995) may be used for installation.



Profile blanking frame

for TS

On request, all enclosures in the TS 8 series (see page 138) may be manufactured with a fitted profile blanking frame (design to match the TS glazed door) instead of door(s). For optimum access to installed equipment, trim frame hinged on the right, held by a mechanical snap fastener on the left.

Material:

Extruded aluminium section, with die-cast zinc corner pieces, powder-coated

Colour:

RAL 7035

Packs of	Model No. TS
1	xxxx.550

Delivery times available on request.

Order example:

Baying system TS 8, WHD: 800 x 2000 x 600 mm

- Standard TS 8806.500
- with profile blanking frame TS 8806.550



Interior door

with mounting frame

for compact enclosure AE IP 69K

For the installation of control and display components. Mounting frame, depth-adjustable for a distance between the outer surface and the inside of the outer door of 35 to 85 mm (80 mm with AE 1101.010/.110).

Material:

Sheet steel, 1.5 mm

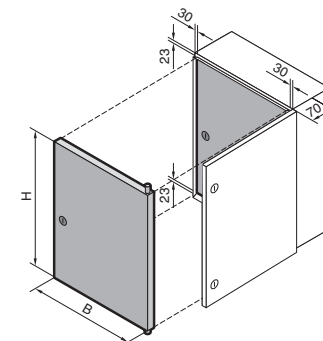
Colour:

RAL 7035

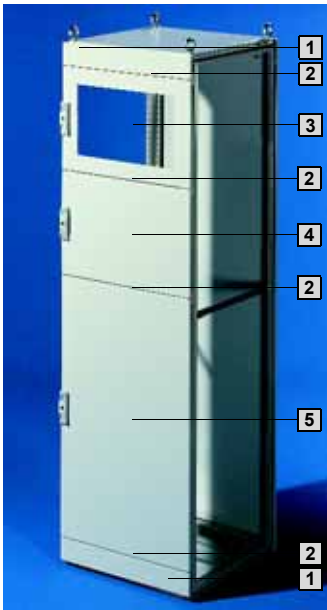
Supply includes:

Mounting frame, door with cam lock and screw-driver insert, including assembly parts.

For AE enclosure	W (B) mm	H mm	Model No. AE
1101.010/.110	160	260	1101.910
1101.020/.120	330	330	1101.920
1101.030/.130	330	580	1101.930
1101.040/.140	580	580	1101.940



Modular front design for TS 8



Modular front design

for TS 8606.512,
WHD 600 x 2000 x 600 mm,
for TS 8806.512,
WHD 800 x 2000 x 600 mm
(see page 149)
and all other 600 and 800 mm wide TS 8 enclosures instead of a door or rear panel, insofar as the modular front is positioned in a suite between two enclosures with normal doors. If positioned as a free-standing enclosure or at the end of an enclosure suite, special side panels such as TS 8106.512 (see page 942) are required. The partial doors with and without viewing panels can be arbitrarily combined with cross members. A trim panel and a cross member are each required at the top and bottom. The requirements for your individual front design and the considerations which must be taken into account are illustrated on the sample configuration opposite.

Protection category:
With a completed enclosure IP 55 to EN 60 529/09.2000, complies with NEMA 12.

! Also required:

- 1 Trim panels, height 100 mm or trim panel, hinged at the top, height 300 mm
- 2 Cross member

+ Accessories:

- 3 Partial door with viewing window, height 400 mm
- 4 Partial door without viewing window, height 400 mm
- 5 Partial door without viewing window, height 1000 mm



1 Trim piece, hinged at the top for TS

For the installation of control and display components.

Material:
Sheet steel, 2 mm

Colour:
RAL 7035

Supply includes:
Hinges, cam locks with double-bit insert and assembly parts.

Note:
Not in combination with top-mounted module for TS (see page 971).

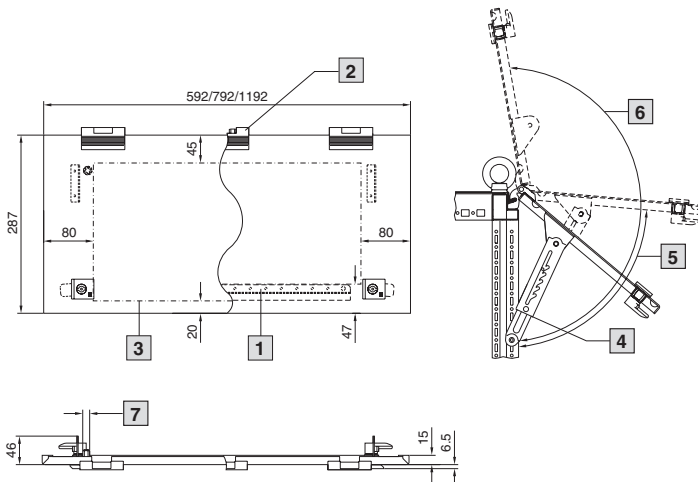
Width mm	Height mm	Model No. TS
600	300	8801.230
800	300	8801.240
1200	300	8801.250

+ Accessories:

Support stay for trim piece, hinged at the top, see page 942.
Lock inserts, version A, see page 956.

✎ Rittal service:

Combination with shortened door, enclosure with pre-fitted trim panel instead of door, cut-outs for operating and display components available on request.



- 1 Only for width 800 and 1200 mm
- 2 Only for width 1200 mm
- 3 Usable interior area
- 4 Optional: Stay TS 8801.260
- 5 Maximum opening with support stay approx. 85°
- 6 Maximum opening without support stay approx. 190°
- 7 Earthing bolt M8

Modular front design for TS 8



1 Trim panels

for TS

Required as upper and lower height trim.

Material:

Sheet steel, 2 mm, textured

Colour:

RAL 7035

Supply includes:

2 trim panels, assembly parts.

Height mm	Model No. TS	
	600 mm width	800 mm width
100	8801.510	8801.110



Also required:

Cross member, see page 941.



2 Cross member

for TS

For use as sealing member between:

- Trim panels
- Partial doors
- Trim piece, hinged at the top

Material:

Sheet steel

Colour:

RAL 7035

Supply includes:

Assembly parts.

Packs of	Model No. TS	
	600 mm width	800 mm width
5	8801.630	8801.830



3 4 5 Partial doors

for TS

Door can be optionally hinged on the right or left side.

In the case of doors without viewing panel (height 600 – 1000 mm) the installation of monitor frame SZ 2305.000 is possible. Standard double-bit lock insert may be exchanged for lock inserts, type F, and from 600 mm height, for comfort handle.

Material:

Sheet steel, 2 mm

Colour:

RAL 7035

Supply includes:

Hinges and lock.



Also required:

Cross member, see page 941.



Accessories:

Monitor frame SZ 2305.000, see page 945.

Lock inserts, type F, see page 956.

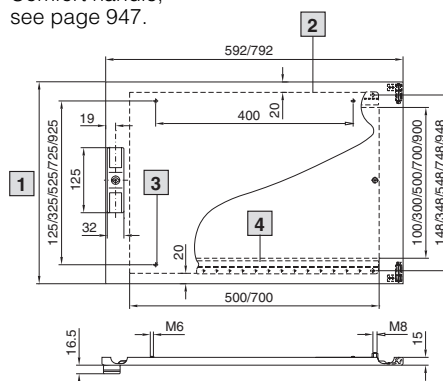
Comfort handle, see page 947.

Solid

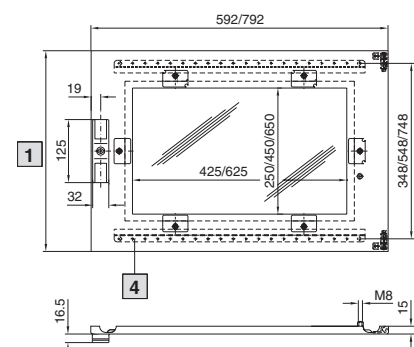
Height mm	Model No. TS	
	600 mm width	800 mm width
200	8801.520	8801.120
400	8801.540	8801.140
600	8801.560	8801.160
800	8801.580	8801.180
1000	8801.500	8801.100

With 3 mm single-pane safety glass

Height mm	Model No. TS	
	600 mm width	800 mm width
400	8801.550	–
600	8801.570	8801.170
800	8801.590	–



- 1 Height – 2 mm
- 2 Usable interior area
- 3 M6 bolt only for width 600 mm
- 4 Perforated strip only for width 800 mm



Door/locks

Modular front design for TS 8



Drawer

for TS

For mouse and keyboard with a maximum width of 500/700 mm.

A high level of protection is retained, even with the flap open.

Standard double-bit lock insert may be exchanged for 27 mm lock inserts, type A, plastic handles, type B and T handles, type B.

Material:

Sheet steel

Colour:

RAL 7035

Supply includes:

Flap and assembly parts.

Height	Model No. TS	
	600 mm width	800 mm width
200 mm	8801.715	8801.915



Also required:

Cross member, see page 941.



Accessories:

Lock inserts, 27 mm, type A, see page 956.

Plastic handle, type B, see page 954.

T handles, type B, see page 955.



Desk section

for TS

For installing

- Keyboard
- Display and control elements with screw-fastened cover plates top and bottom.

Material:

Sheet steel

Colour:

RAL 7035

Supply includes:

Assembly parts.

Height	Model No. TS
	600 mm width
200 mm	8801.705



Also required:

Cross member, see page 941.



Side panels for modular front design

for TS

Attachment on the inside vertical enclosure frame member. The TS 8106.235 side panel retainers (page 917) could conflict with the partial door fasteners.

Material:

1.5 mm sheet steel

Surface finish:

Dipcoat-primed, powder-coated in textured RAL 7035 on the outside

Protection category:

IP 55 to EN 60 529/09.2000

Supply includes:

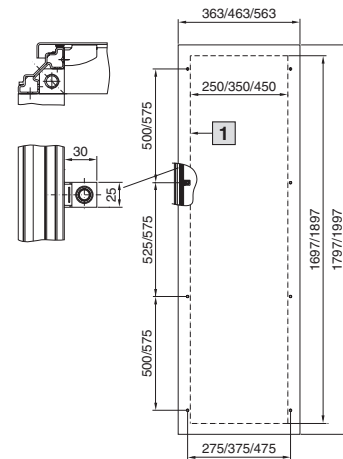
2 side panels,
16 retainers with automatic potential equalisation.

Note:

Can also be used in enclosures without modular front design!

1 Usable interior area

For enclosure		Model No. TS
Height mm	Depth mm	
2000	600	8106.512
2000	800	8108.512



Support stay

for trim panel, hinged at the top

5 pitch pattern positions up to a maximum opening of approx. 85°.

Material:

Sheet steel, zinc-plated, passivated.

Packs of	Model No. TS
2	8801.260

Viewing panels/operating panels



System windows

To conceal display and operating instruments or cut-outs, and to protect against dirt and liquids as well as unauthorised access.

Consisting of the following components:

1. Base frame:

- Easily screw-fastened to the door thanks to modified dimensions (tubular door frame may be used as a drilling template).
- Readily height-adjustable.
- Stabilises the door cut-out.
- Conceals the cut edge.
- The rain canopy
 - prevents dirt from landing on the seal,
 - protects the glass from being lifted out,
 - prevents the ingress of dirt and moisture when opening the window.

2. Viewing window:

- Made from single-pane safety glass:
 - high level of resistance to solvents and scratches,
 - anti-static,
 - reduced risk of injury if broken.
- Cam lock with double-bit insert, easily exchanged for lock inserts, type A, and semi-cylinders in the Ergoform-S lock system (not with FT 2735.500 and .560)
- Hinge with 180° opening angle, easily inserted.

Material:

System windows:
Extruded aluminium sections with die-cast zinc corner pieces and single-pane safety glass.

Surface finish:

Base frame:
Powder-coated in RAL 7035.
Hinge and lock section:
Natural-anodised.

Protection category:

IP 54 to EN 60 529/09.2000

To fit TS, ES with width mm	Window size mm				Model No. FT 30 section	Model No. FT 60 section
	exterior		internal			
	W (B)	H	b	h		
600	500	270	430	200	2735.500	–
		370		300	2735.510	2736.510
		470		400	2735.520	2736.520
		570		500	2735.530	2736.530
		670		600	2735.540	2736.540
800	700	270	630	200	2735.560	–
		370		300	2735.570	–
		470		400	2735.580	2736.580
		570		500	2735.590	2736.590
		670		600	2735.250	2736.500
Other sizes ¹⁾					2735.509	2736.509

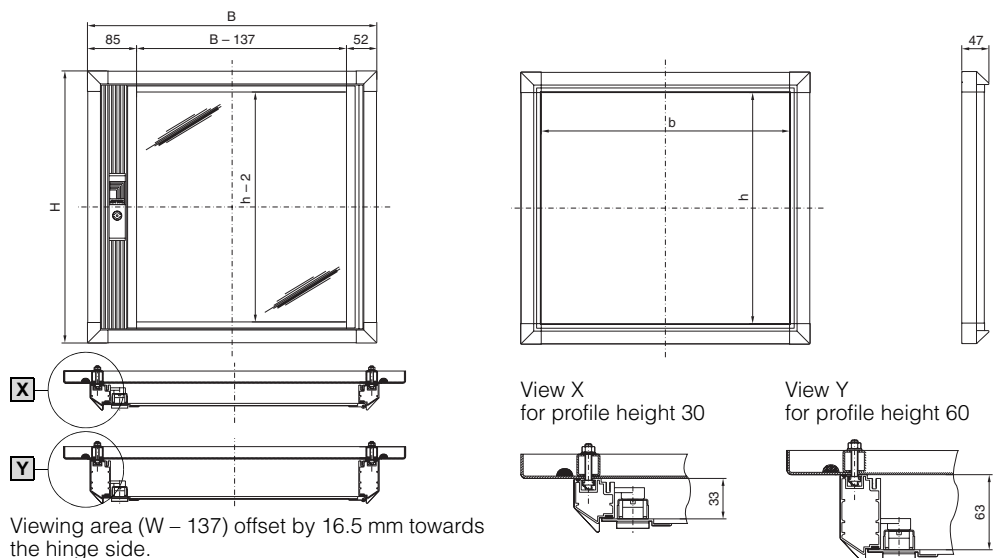
Lock systems

Standard double-bit lock insert may be exchanged for lock inserts 27 mm, type A, see page 956 and for Ergoform-S lock system (except H = 270 mm), see page 953.

¹⁾Please also specify the external dimensions of the viewing window. Delivery times available on request.

Example:

System window (30 section) to fit door width 500 mm with width W (B) = 400 mm x height H = 480 mm (b x h = 330 mm x 410 mm)
Model No. FT 2735.509/W (B) x H = 400 x 480 mm.



Viewing area (W – 137) offset by 16.5 mm towards the hinge side.

Door/locks

Viewing panels/operating panels



Viewing window

For mounting on
 ● AE instead of door
 ● Surfaces

Material:

Frame: Aluminium, natural-anodised
 Glass panel: Acrylic

Protection category:

IP 54 to EN 60 529/09.2000

Supply includes:

Plastic handle with lock insert no. 3524 E.



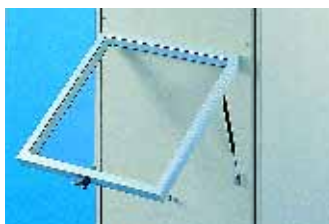
For use as door variant with	Width mm	Height mm	Model No. FT	
			Depth = 34 mm	Depth = 60 mm
AE 1039.500 AE 1339.500 AE 1009.500 DK 7641.000	599	377	2730.000	2760.000
AE 1050.500 AE 1350.500 AE 1007.500	499	497	2733.000	2763.000
AE 1010.500 AE 1054.500 AE 1060.500 AE 1360.500 DK 7643.000	599	597	2731.000	2761.000
AE 1012.500 AE 1076.500 AE 1376.500 DK 7645.000	599	757	2732.000	2762.000
for 3 U subrack	599	197	2734.000	–

Max. installation depth: (depth – 4 mm)

Visible area:
 (width – 60 mm) x (height – 60 mm)

Note:

Other sizes available on request.



Horizontally hinged FT stay

A gas pressurised spring holds the viewing window securely open (top or side).
 When the viewing window is closed, the gas pressurised spring disappears into the frame section.

Packs of	Model No. FT
2	2772.000

Viewing panels/operating panels



Acrylic glazed cover

With security lock, lock no. 3524 E

Material:

Frame:
 Extruded aluminium sections with die-cast corner pieces
 Glas panel: Smoked acrylic

Protection category:

IP 54 to EN 60 529/09.2000

Acrylic glazed covers, 482.6 mm (19")

U	Width mm	Height mm	Depth mm	Model No. FT
3	320	158	47.5	2780.000
3	534	158	47.5	2781.000
6	534	291.5	47.5	2782.000
9	534	425	47.5	2796.000

Max. installation depth: 43 mm

Visible area:
 (width – 40 mm) x (height – 20.5 mm)

Metric acrylic glazed covers

Width mm	Height mm	Depth mm	Model No. FT
400	200	47.5	2784.000
400	400	47.5	2785.000
500	200	47.5	2786.000
500	400	47.5	2787.000
600	200	47.5	2788.000
600	400	47.5	2789.000

Max. installation depth: 43 mm

Visible area:
 (width – 40 mm) x (height – 20.5 mm)

B
7.4

Viewing panels/operating panels



Viewing window

Stainless steel

Fitted as standard with internal 130° hinges and all-round seal.

The double-bit lock insert may be exchanged for 27 mm lock inserts, type A, and Ergoform-S handle SZ 2452.000.

Material:

Stainless steel 1.4301 (AISI 304)
Single-pane safety glass

Protection category:

IP 54 to EN 60 529/09.2000

Supply includes:

Assembly parts.

Width (B) mm	Height mm	Depth mm	W (B1) mm	Model No. FT
522	600	38	408	2793.560
722	600	38	608	2793.760

Note:

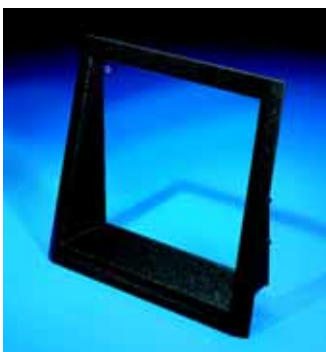
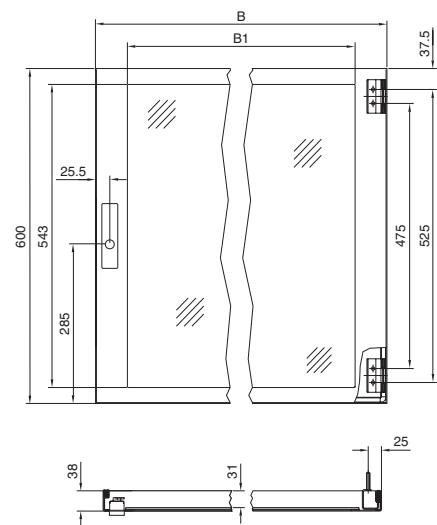
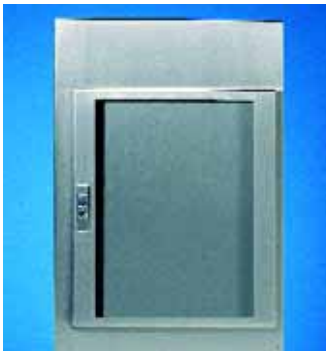
Smaller sizes and viewing window for hygienic design in preparation.



Accessories:

Lock inserts, 27 mm, version A, see page 956.

Ergoform-S handle SZ 2452.000, see page 953.



Monitor frame

For door width 600 and 800 mm

For covering a door cut-out, for all standard monitors up to 482.6 mm (19").

Protection category:

IP 54 to EN 60 529/09.2000

Supply includes:

Security glass pane.

Monitor frame	Model No. SZ	
	2305.000	
Dimensions	Width mm	Height mm
External dimensions	470	430
Viewing area	375	325
Cut-out required	415	375

German registered design
no. M 93 03 143



Identification strips

For individual field identifiers on the door, including transparent cover and assembly parts.

For labels:

Width: Enclosure width – 150 mm

Height: 29 mm

Thickness: 0.75 mm.

Colour:

RAL 7033

For enclosure width mm	Model No. SZ
600	2403.000
800	2404.000

German registered design
no. M 92 02 456

IR reg. design no. DM/023 581
with validity for DE, FR, IT

Viewing panels/operating panels



Operating panel

For mounting on:

- AE instead of door
- Surfaces

Frame construction with corner connectors on the inside, 3 mm aluminium plate secured from the inside and sealed against the frame

Material:

Aluminium, natural-anodised.

Protection category:

IP 54 to EN 60 529/09.2000

Supply includes:

Aluminium frame, display panel, hinges, brackets.

For use as door variant for AE	Width mm	Height mm	Depth mm	Model No. FT
1001.600 1002.500 1002.600 1032.500 1035.500	199	297	34	2740.000¹⁾
1004.600 1011.600 1030.500 1031.500	379	297	34	2741.000
1006.500 1006.600 1380.500	379	377	34	2742.000
1008.600 1038.500 1338.500	379	597	34	2743.000
1007.600 1013.600 1050.500 1350.500	499	497	34	2745.000
1009.600 1039.500 1339.500	599	377	34	2744.000
1010.500 1010.600 1060.500 1360.500	599	597	34	2746.000

¹⁾ With AE, only for use on the rear panel

Area available for population:
(width – 70 mm) x (height – 70 mm)

Dimensions of aluminium plate:
(width – 54 mm) x (height – 54 mm)

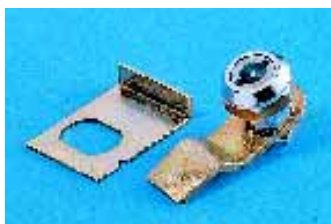
Note:

Other sizes available on request.



Accessories:

Cam lock FT 2749.000,
see page 946.



Cam lock

May be retrofitted to the operating area or enclosure panel of operating panels.

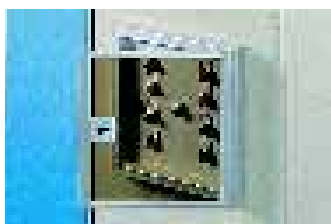
Standard double-bit lock insert may be exchanged for type C lock inserts and type C plastic handle.

Packs of	Model No. FT
1	2749.000



Accessories:

Lock inserts, type C,
see page 956.
Plastic handle, type C,
see page 954.



Viewing window

for operating panel

For the protection of display and control components. With a build height of max. 35 mm.

Material:

Frame: Aluminium, natural-anodised
Glass panel: Smoked acrylic.

Supply includes:

Lock insert no. 3524 E.

For operating panel	Model No. FT
FT 2741.000	2791.000
FT 2742.000	2792.000

Note:

Other sizes available on request.



The Rittal comfort handle

As the handle does not take up any swing space, due to its folding mechanism, the door surface area may be maximised for installed equipment.

Material:

Die-cast zinc

Surface finish:

Powder-coated

German patent no. 198 01 721

German registered design no. M98 00 539

IR reg. design no. DM/045 065 with validity

for BE, CH, ES, FR, IT, NL, HU, LU

Austrian design no. 32290

Czech design no. 28278

UK reg. design no. 2 075 910

Swedish design no. 64 750

South Korean design no. 241 505

Israeli design no. 30 123

Slovenian design no. 98 500 73

Russian design no. 46307

South African design no. 98/0865

Finnish design no. 20461

Chinese design no. 983 03439

Australian design no. 13887

US design patent no. 428,322

Brazilian design no. DI 5801235-4

Jap. design no. 1 081 561

Taiwanese design no. 68683

European patent no. 1 049 842

with validity for FR, GB, IT

Jap. patent no. 3 485 892

US patent no. 6,418,762



Comfort handle

for lock inserts

Prepared for the installation of lock inserts, version F, see page 956, and TS lock and push-button inserts, see page 947.

Length: 295 mm.

Design	Model No. TS
RAL 7032	8611.010
RAL 7035	8611.020
RAL 8019	8611.250
RAL 9005	8611.350
Matt nickel-plated	8611.330



Also required:

Handle adaptor for mounting on a TS glazed door, PC-TS bottom door, IW designer door, IW glazed door, see page 934.

Mounting adaptor for mounting on a designer glazed door 180°, see page 935.



Comfort handle

for padlock and lock inserts

With additional shackle (hole diameter 8 mm) for a padlock. Prepared for the installation of lock inserts, version F, see page 956, and TS lock and push-button inserts, see page 947.

Length: 295 mm.

Design	Model No. TS
RAL 7032	8611.030
RAL 7035	8611.290
RAL 8019	8611.260



Also required:

Handle adaptor for mounting on a TS glazed door, PC-TS bottom door, IW designer door, IW glazed door, see page 934.

Mounting adaptor for mounting on a designer glazed door 180°, see page 935.



Lock and push-button inserts

For installation in the comfort handles for lock inserts.

Design	Model No. TS
Security lock insert no. 3524 E	8611.180¹⁾
Push-button insert	8611.190
Lock and push-button insert, lock no. 12321; no other lock is possible	8611.200¹⁾

¹⁾ with 2 keys

Lock systems



Comfort handle

With security lock insert E1

Only for use with **VW, Audi, SEAT, SkodaAuto**.
Supplied without key.
Length: 295 mm.
Other VW locks available on request.

Design	Model No. TS
RAL 7032	8611.040
RAL 7035	8611.045

! Also required:

Handle adaptor for mounting on a TS glazed door, PC-TS bottom door, IW designer door, IW glazed door, see page 934.
Mounting adaptor for mounting on a designer glazed door 180°, see page 935.



Comfort handle

for semi-cylinder

Prepared for the installation of commercially available semi-cylinders, 40 or 45 mm total length, to DIN 18 252, see page 957, as well as SZ lock and push-button inserts, see page 948.
Length: 302 mm.

Design	Model No. TS
RAL 7032	8611.060
RAL 7035	8611.070
RAL 8019	8611.270
RAL 9005	8611.360
Matt nickel-plated	8611.340

! Also required:

Handle adaptor for mounting on a TS glazed door, PC-TS bottom door, IW designer door, IW glazed door, see page 934.
Mounting adaptor for mounting on a designer glazed door 180°, see page 935.



Lock and push-button inserts

For installation in

- Comfort handle for semi-cylinders, see above,
- Ergoform-S standard, see page 953
- Folding lever handle for CM, see page 949

Design	Model No. SZ
Security lock insert no. 3524 E	2467.000¹⁾
Push-button insert	2468.000
Lock and push-button insert, lock no. 2123; no other lock is possible	2469.000¹⁾

¹⁾ with 2 keys

⇄ Possible alternative:

Semi-cylinder, see page 957.



Comfort handle

Prepared for ASSA lock system.

Length: 302 mm.

Design	Model No. TS
RAL 7032	8611.050
RAL 7035	8611.280

! Also required:

Handle adaptor for mounting on a TS glazed door, PC-TS bottom door, IW designer door, IW glazed door, see page 934.
Mounting adaptor for mounting on a designer glazed door 180°, see page 935.



Designer handle

for DK-TS

To be used in exchange for the existing handle system. Prepared for the installation of standard commercial semi-cylinders, cylinder length 30/10 mm or 35/10 mm, to DIN 18 252, as well as lock and push-button inserts.

Material:

Die-cast zinc

Surface finish:

Powder-coated

Colour:

RAL 7035

Packs of	Model No. DK
1	7824.600

+ Accessories:

SZ lock and push-button inserts, see page 948.
Semi-cylinder, see page 957.



Folding lever handle

for CM

As the handle does not take up any swing space, due to its folding mechanism, the door surface area may be maximised for installed equipment.

Colour:

Enclosure: Similar to RAL 9005

Handle: Similar to RAL 9006

Dimensions:

Length: 242 mm (with inserted trim panel)

Width: 50 mm

Depth: 17.5 mm



Folding lever handle

for CM

for lock inserts

Prepared for the installation of:

- Semi-cylinders with an overall length of 40 or 45 mm (to DIN 18 252)
- Lock inserts
- Lock and push-button inserts

Packs of	Model No. CM
1	5001.060

+ Accessories:

Lock inserts, version F, see page 956.
SZ lock and push-button inserts, see page 948.
Semi-cylinder, see page 957.



Folding lever handle

for CM

for padlock and lock inserts

Prepared for the installation of:

- Semi-cylinders with an overall length of 40 or 45 mm (to DIN 18 252)
- Lock inserts
- Lock and push-button inserts

With additional shackle (hole diameter 8 mm) for a padlock.

Packs of	Model No. CM
1	5001.062

+ Accessories:

Lock inserts, version F, see page 956.
SZ lock and push-button inserts, see page 948.
Semi-cylinder, see page 957.

Doors/locks

Lock systems



Folding lever handle
for CM
prepared for KESO lock system.

Packs of	Model No. CM
1	5001.063



Folding lever handle
for CM
prepared for ASSA lock system.

Packs of	Model No. CM
1	5001.064



Folding lever handle
for CM
with lock insert, lock E1
Only for use with **VW, Audi, SEAT, SkodaAuto.**
Supplied without key.
Other VW locks available on request.

Packs of	Model No. CM
1	5001.061



Security handle
with code
Flexible access opportunities with

- individual 3-digit code without key or
- with the master key function via an additional semi-cylinder of 40 or 45 mm to DIN 18 252, irrespective of the code.

Design with	Model No. DK
Comfort handle TS, FR(i)	7200.800
Ergoform-S handle for TE	7200.810

! Also required:

Mounting adaptor for mounting on a designer glazed door 180°, see page 935.

+ Accessories:

SZ lock and push-button inserts, see page 948,
Semi-cylinder, see page 957.



Adjacent door locking for TS

For optimum operation of the adjacent door from the outside if the handle on the inside is difficult to access due to swing frames or 482.6 mm (19") installed equipment. Retrospective conversion of the adjacent door is easily achieved using the supplied drilling template. The handle on the inside is no longer required.

Colour:
RAL 7035

Supply includes:
Assembly parts.



Packs of	Model No. TS
1	8611.370

+ Accessories:

Standard double-bit lock insert may be exchanged for 27 mm lock inserts, version A, see page 956.



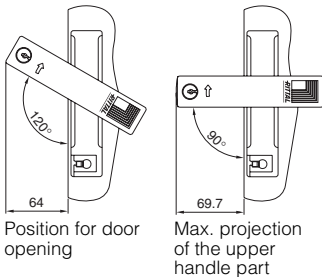
Swivel handle

for sheet steel door DK-TS

With lock insert, lock no. 3524 E. The use of semi-cylinders is not supported. Length: 150 mm.

Note:
When used in a bayed enclosure suite, the hinges must be on the same side.

Design	Model No. DK
RAL 7035	7829.300



Position for door opening

Max. projection of the upper handle part



Locking bar latch to CNOMO¹⁾

To fit all locking bars in TS doors and glazed doors with standard lock or comfort handle.

The latch prevents the locking bars from moving when the door is open. For mounting on the bolt of the bar guide.

¹⁾ CNOMO is a specification by the French automobile industry. For safety reasons, it must not be possible to lock the handle whilst the door is open.



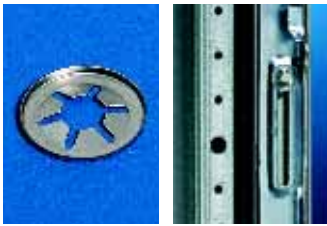
Packs of	Model No. TS
10	8611.210

! Also required:

for CNOMO¹⁾
Lock inserts, version F, 6.5 mm triangular insert TS 8611.220, see page 956.

Doors/locks

Lock systems



Spring washer

Upon dismantling the TS locking rods, the spring washers cannot be reused.

Material:

Spring steel, zinc-plated, passivated

Packs of	Model No. TS
100	8800.070



Assembly tool

for spring washers

For simple pressing-on of the spring washers via inlet ring magnets.

Packs of	Model No. TS
1	8800.270



Mini-comfort handle

for use in all 3-part EL enclosures

Prepared for the installation of lock inserts and for the installation of commercially available 40 or 45 mm semi-cylinders, and of lock and push-button inserts.

Material:

Die-cast zinc

Colour:

RAL 7035



Design	Model No. DK
For lock inserts ¹⁾	7705.110
For semi-cylinder ²⁾	7705.120

+ **Accessories:**

¹⁾ Lock inserts, version F, see page 956.

¹⁾ TS lock and push-button inserts, see page 947.

²⁾ SZ lock and push-button inserts, see page 948.

²⁾ Semi-cylinder, see page 957.



The Ergoform S lock system

The unlocked handle folds down forwards and is swivelled to open the lock.

Material:

Die-cast zinc

Surface finish:

Powder-coated



Ergoform standard

Prepared for the installation of semi-cylinders with a total length of 40 or 45 mm (to DIN 18 252), see page 957, all 27 mm lock inserts, version A, see page 956, as well as SZ lock and push-button inserts, see page 948.

Design	Model No. SZ
RAL 7032 with brown handle	2450.000
RAL 7035 with brown handle	2450.010
Brown	2451.000
Matt nickel-plated	2452.000
RAL 7032	2454.000
RAL 7035	2435.000
RAL 7032 ¹⁾ with brown handle and bracket	2455.000
RAL 7035 ¹⁾ with brown handle and bracket	2455.010

¹⁾ Hole diameter = 7 mm for padlock



To fit **KS plastic enclosures**. Prepared for the installation of semi-cylinders with a total length of 40 mm (to DIN 18 252), see page 957, all 27 mm lock inserts, version A, see page 956, as well as SZ lock and push-button inserts, see page 948.

Design	Model No. KS
RAL 7035 with brown handle	1490.010



Ergoform special

1 With security lock insert E1.

Only for use with **VW, Audi, SEAT, SkodaAuto**.

Supplied without key.

Other locks available on request.

2 Prepared for ASSA lock system.

E1	Model No. SZ
RAL 7035 with brown handle	2456.500



3 To fit all ES enclosures with CNOMO lock, 6.5 mm.

Triangular lock insert. The handle can only be locked if the door is completely closed (**French motor car industry**). Not suitable for glazed doors.

ASSA	Model No. SZ
Completely brown	2453.000 ¹⁾

¹⁾ To fit plastic enclosures KS on request.

CNOMO	Model No. SZ
RAL 7035 with brown handle	2421.500



Ergoform padlock handle system

for **CS basic and modular enclosures**

With an additional shackle for a padlock. Hole diameter of shackle: 9 mm.

Prepared for the installation of 40 mm semi-cylinders (length: 10/30 mm), see page 957.

Packs of	Model No. CS
1	9785.030

Lock systems



Plastic handles

With cylinder insert.
Lock no. 3524 E including assembly parts,
seal and 2 keys.

Note:

The universal lock systems allows the installation of a suitable handle to suit almost any application or customer specification. The relevant product ordering page shows which handles can be fitted into each particular assembly.



Version B

Colour	Model No. SZ
RAL 9011	2576.000
RAL 7030	2439.000



Version B, but without lock insert.

Colour	Model No. SZ
RAL 9011	2533.000



Version C

Colour	Model No. SZ
RAL 9011	2485.000



Version C, but without lock insert.

Colour	Model No. SZ
RAL 9011	2485.100



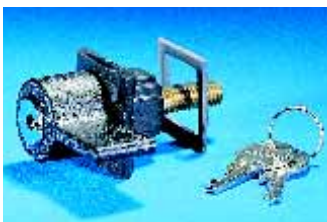
Version E

Colour	Model No. KS
RAL 8019	1484.000



Version E, but without lock insert.

Colour	Model No. KS
RAL 8019	1484.001



Version G

Colour	Model No. SZ
RAL 9011	2599.000

T handles

Material:
Die-cast zinc, chrome-plated

Supply includes:
Seal and 2 keys.



Version B

Design	Model No. SZ
With cylinder insert, lock no. 3524 E	2575.000
Without cylinder insert	2572.000



Version C

Design	Model No. SZ
With cylinder insert, lock no. 3524 E	2535.000
Without cylinder insert	2536.000

Cam locks



Housing made of die-cast zinc, nickel-plated.

	Model No. SZ
With double-bit insert ¹⁾	2520.000
With cylinder insert, lock no. 3524 E	2530.000

¹⁾ May be exchanged for version C lock inserts, see page 956.



Housing made of fibre-glass reinforced polyamide, also as a replacement for compact enclosures AE.

	Model No. SZ
With double-bit insert ¹⁾	2420.000
With cylinder insert, lock no. 3524 E	2430.000

¹⁾ May be exchanged for version B lock inserts, see page 957 and 27 mm lock inserts, version A, see page 956.



Housing made of fibre-glass reinforced polyamide, also as a replacement for compact enclosures AE.

With lock no. E1.
Only for use with **VW, SEAT, Audi, SkodaAuto**.
Supplied without key.
Other locks available on request.

Colour	Model No. SZ
RAL 7032	2540.000
RAL 7035	2540.500



Made entirely from stainless steel 1.4404 (AISI 316L).
For AE compact enclosures, stainless steel (with cam lock).

	Model No. SZ
With double-bit insert	2304.000

Lock inserts

Note:

The universal lock systems allows the installation of a suitable handle to suit almost any application or customer specification. The relevant product ordering page shows which handles can be fitted into each particular assembly.



Version A

Material:
Die-cast zinc

Length 27 mm	Model No. SZ
7 mm square	2460.000
8 mm square	2461.000
7 mm triangular	2462.000
8 mm triangular	2463.000
Screwdriver	2464.000
Daimler insert	2465.000
3 mm double-bit	2466.000
Fiat	2307.000
6,5 mm triangular (CNOMO)	2460.650



Version C

Material:
Die-cast zinc

Length 41 mm	Model No. SZ
7 mm triangular	2527.000
8 mm triangular	2528.000
7 mm square	2523.000
8 mm square	2526.000
Daimler insert	2522.000
3 mm double-bit	2483.000



Version D

Material:
Die-cast zinc

Length 47 mm	Model No. SZ
7 mm triangular	2555.000
8 mm triangular	2556.000
7 mm square	2557.000
8 mm square	2558.000
Daimler insert	2554.000
3 mm double-bit	2484.000



Version E

Material:
Plastic

	Model No. KS
7 mm triangular	1485.000
8 mm triangular	1486.000
7 mm square	1487.000
8 mm square	1488.000
Screwdriver	1489.000
Double-bit	1492.000



Version F

Material:
Die-cast zinc

Design	Model No. TS
7 mm square	8611.100
8 mm square	8611.110
6,5 mm triangular (CNOMO)	8611.220
7 mm triangular	8611.120
8 mm triangular	8611.130
Screwdriver	8611.140
Daimler	8611.150
3 mm double-bit	8611.160
Fiat	8611.170

Cylinder inserts

Material:
Die-cast zinc



Version B

Lock no. 3524 E with 2 keys.

Packs of	Model No. SZ
1	2571.000



Version C

Lock no. 3524 E with 2 keys.

Packs of	Model No. SZ
1	2525.000



Semi-cylinder

to DIN 18 252

40 mm, alternative closure, for individual locks in handle systems with cylinder insert.

Supply includes:
3 keys.

Packs of	Model No. CS
1 set	9785.040



Semi-cylinder lock

for compact enclosures AE

For retro-fitting to single-door enclosures with cam lock.

The cover plate is locked by semi-cylinders with a total length of 40/45 mm (to DIN 18 252). An additional cover protects the cylinder against dirt. The protection category of the enclosure is not impaired. Supplied without semi-cylinder.

Material:
Die-cast zinc

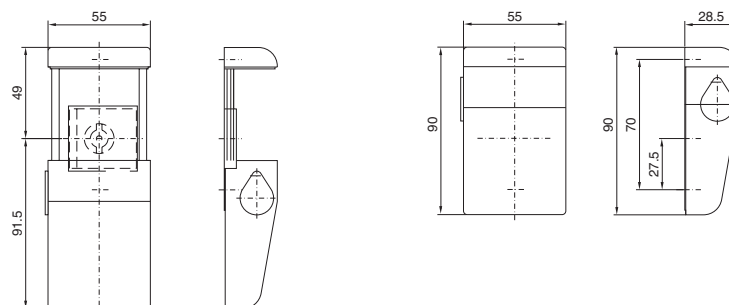


Design	Model No. SZ
RAL 7035	2534.100
Nickel-plated (matt)	2534.500

Accessories:

Semi-cylinder, see page 957.

German patent no. 195 12 280
European patent no. 0778 913
with validity for GB, FR, IT
US patent no. 5,916,282
Jap. patent no. 3.088.465



Doors/locks

Lock systems



Lock cover

For padlocks or multiple locks

For retrospective mounting on all compact enclosures AE, of sheet steel and with cam lock.

Material:

Die-cast zinc, nickel-plated, passivated

Packs of	Model No. SZ
1	2493.000



Multiple lock

for 6 cam locks

The ideal solution in cases where individual access for several persons is required for maintenance and repair purposes.

Material:

Sheet steel, zinc-plated, passivated

Packs of	Model No. SZ
2	2493.500



Lock cover

prepared for lead seal

For all enclosure types with Rittal-specific locks, such as AE, EB and AP.

Material:

Polyamide

Colour	Packs of	Model No. SZ
RAL 7035	2	2476.000

German registered design no. M 92 07 062



Security lock

Fitted to doors, to protect against contact with live electrical equipment whilst the main switch is ON.

Function:

- Locks the door when the main switch is ON.
- Mains power (voltage) is only enabled whilst the door is closed.
- Monitoring of the lock magnet via an additional closing contact.

Supply includes:

Lock, actuator, angle bracket, assembly parts.

Connection voltage for lock magnet	Model No. SZ
230 V AC 11 VA	2416.000
24 V DC 8 W	2418.000
120 V AC 8 VA	2419.000



Also required:

For twin-door enclosures (for the overlapping door, to indicate "enclosure door closed"), Rittal door-operated switch PS 4127.000, see page 1030.





Enclosure keys

For lock inserts (one double-bit key is supplied with every enclosure).

Design	Model No. SZ/QB
Double-bit key no. 5	2531.000
Security key no. 3524 E	2532.000¹⁾
7 mm triangular	2545.000
8 mm triangular	2546.000
7 mm square	2547.000
8 mm square	2548.000
For HD lock insert	2549.600
Daimler key	2521.000
Fiat key	2308.000
Lock 12321	7526.050¹⁾

¹⁾ Packs of 2



Universal enclosure key

For inserts:

- Double-bit
- Rectangular 8 mm
- Triangular 8 mm

With integral slotted screwdriver.

Packs of	Model No. SZ
1	2549.000



Universal key

For inserts:

- Double-bit
- Rectangular 6 mm
- Rectangular 7 – 8 mm
- Triangular 7 – 9 mm

With bit adaptor and reversible bit for:

- Multi-tooth size 25
- Philips-head (Ph 2)

Packs of	Model No. SZ
1	2549.500



Accessories:

Bit for HD lock insert (Model No. HD 2549.510), see page 301.



Quick-release fastener for QuickBox

The quick-release fastener provides optimum access, even when used in problem areas. To facilitate locking, the quick-release fastener is screw-fastened to the mounting bracket at the front. This enables the QuickBox to be locked even when the fasteners of the sides are opened, allowing the enclosure cover to be attached and removed easily.

Packs of	Model No. QB
2	7502.220

Material:

Sheet steel, spray-finished

Colour:

RAL 7035

Supply includes:

2 mounting brackets, assembly parts and quick-release fasteners.

Doors/locks

Lock systems



1



2



3

Door latch for bayed suites

For extending the door locking of **commercially available main switches** to bayed suites TS. Adjacent door cannot be opened until the main door has been opened.

1 Operating mechanism

(Fitted in the enclosure with main switch and additionally in every fourth adjacent enclosure)

2 Adjacent door locking

(installation in adjacent enclosure)

3 Interconnecting rods

To extend locking from the main enclosure to the adjacent enclosures of a bayed suite. An interconnecting rod corresponding to the width of the enclosure is required for each adjacent enclosure.

The main switch can be positioned anywhere in the suite; its function is independent from the door hinge position.

Subsequent locking of the adjacent doors in the suite is possible: they are thus automatically included in locking operation.

	Model No. TS
Operating mechanism	4912.000

	Model No. TS
Adjacent door locking	4911.000

For enclosure width mm	Packs of	Model No. TS
600	10	4916.000
800	10	4918.000
1200	10	4920.000



Isolator door locking (US version)

For safety locking of enclosures and bayed suites in accordance with US regulations, only in conjunction with the following **types of main switches**:

- Allen Bradley 1494 V-H1 (actuating lever)
- Square D 9422 A1
- ITE Siemens Max-Flex series/FHOH (only available in the USA)
- General Electric TDA Typ 1 and 2.
- Moeller NZM-XSHGVR 12-NA

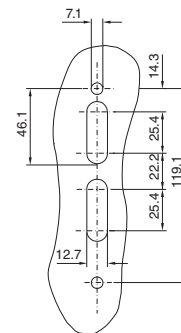
For assembly, a main door lock plus adjacent door locking are required, together with interconnecting rods to match the bayed enclosures.

Caution!

When configuring bayed suites, it must be noted that the isolator main enclosures can only be attached to the right side (US version).

Main door latch for TS	Model No. TS
	8611.310

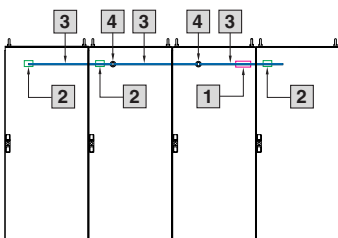
Cut-out for main switch



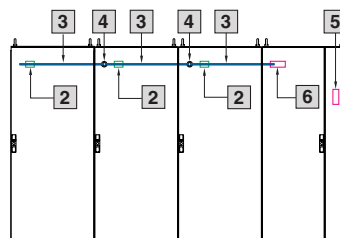
Lock systems



Door locking for TS bayed suites (commercially available main switches)



Isolator door locking (USA version)



1 Operating mechanism, installation in enclosure with main switch

2 Adjacent door locking, installation in adjacent enclosure

3 Interconnecting rod

4 Connection component (included in the supply of adjacent door locking item 2)

5 Main door lock (for isolator door locking, USA version)

6 Operating mechanism, installation in the main enclosure (included in the supply of the main door lock pos. 5)



Hinges 130°

for ES

For retrofitting a sheet steel door instead of the rear panel.

Material:

Die-cast zinc

Supply includes:

Assembly screws.

Packs of	Model No. PS
6	4190.000



Hinges 130°

for TS

For retrofitting a sheet steel door instead of the rear panel.

Material:

Die-cast zinc

Supply includes:

Assembly screws.

Packs of	Model No. TS
4	8800.020



Also required:

Lock components for frame TS 8800.040, see page 934.



Hinges 180°

For retrospective conversion of sheet steel doors with 130° hinges.

One-person assembly:

- Exchange the hinge parts on the frame side for 180° hinges (4 screws).
- Drill the door at the pre-marked points.
- Screw-fasten the hinge parts onto the door.
- Locate the door.
- Press in the captive hinge pins.

Supply includes:

Assembly screws.

Note:

Door assemblies such as the comfort handle may restrict the door opening angle. The hinge pins may only be actuated and the door removed with the door open. The hinge cannot be dismantled from the outside with the door closed (access protection).

for TS

Material:

Die-cast zinc

Design	Packs of	Model No. TS
RAL 7035	4	8800.190
RAL 7032	4	8800.030
RAL 8019	4	8800.230
RAL 9005	4	8800.950
Matt nickel-plated	4	8701.180

for TS with high dynamic loads

Specifically for applications where dynamic stresses occur in addition to heavy door installations (up to 900 N).

Material:

Precision-cast/Die-cast zinc

Colour:

RAL 7035

Packs of	Model No. TS
4	8800.710

Hinges



Hinges 180° for TS bayed enclosure suites with comfort handle

In TS bayed enclosure suites with comfort handle for semi-cylinder, the following door opening angles may be achieved:
Sheet steel door: max. 180°
Glazed door: max. 140°

Material:
Die-cast zinc

Colour:
RAL 7035/RAL 9005

Supply includes:
Assembly screws.

Version for	Packs of	Model No. TS	
		RAL 7035	RAL 9005
Sheet steel door	4	7824.520	7824.522
Glazed door	4	7824.525	–

Note:

- The protection category of the enclosure may be reduced.
- Not for divided doors.
- Door hinge remains the same within a bayed enclosure suite.
- Not suitable for use with TS designer glazed doors.



Rear panel bracket

For:

- Premium Panel
- Premium Line KL, from height 200 mm

For fitting on the inside, so that there are no exterior surfaces where substances could accumulate and pose a potential threat to hygiene. Holds the rear panel against the enclosure when it is flipped down; easily removed if required.

Packs of	Model No. CP
1 set	6682.000

Material:

Stainless steel 1.4301 (AISI 304)

Supply includes:

Assembly parts.



Cover hinge

for KL

The cover hinge is simply screwed to the enclosure protection channel and to the edge fold.

Supply includes:

Assembly parts.

Material	Packs of	Model No. KL
Die-cast zinc	6	1592.000
Stainless steel 1.4404 (AISI 316L)	2	1592.010



Cover retainer

for KL

The cover retainer is easily fitted without drilling, and allows the covers to be opened upwards, even when the terminal box below is bayed.

Packs of	Model No. KL
3 pairs	1591.000

Hinges 180°

For retrospective conversion of standard doors with 130° hinges. Including assembly parts.



For ES, AP universal console, TP pedestals, TE

Material:
Aluminium

Surface finish:
Powder-coated in RAL 8019

Packs of	Model No. PS
6	4189.000



For ES

Material:
Stainless steel 1.4301 (AISI 304)

Packs of	Model No. PS
6	4156.000



For AP one-piece console

Material:
Sheet steel

Packs of	Model No. SZ
6	2579.000



For AE

Material:
Die-cast zinc

Packs of	Model No. SZ
2	2449.000



For CM

Material:
Die-cast zinc

Colour:
RAL 9011/9006

Packs of	Model No. CM
3	5001.000



Hinge pin remover

For safe and easy removal of hinge pins.

For enclosure	Model No. SM
AE/CM/FM	2432.000

Door/locks

Door, internal

Support strips

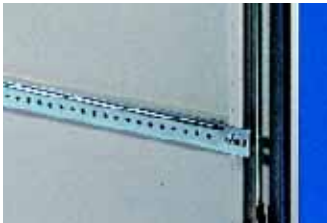
For attachment of

- Cable trunking
- Cable conduit holders
- Contact hazard protection covers
- Equipment installed on the door
- Cable clamping and attachment

4.5 mm diameter hole on a 25 mm DIN pitch pattern.



For TS, CM, ES, TP



For AE

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Packs of 20, including screws.



Accessories:

Screws and self-tapping screws M5, see page 1011.

For door width mm	Length mm	Model No. SZ
400	290	4594.000
500	390	4309.000
600	490	4596.000
800	690	4598.000
900	790	4579.000
1000	890	4599.000

For enclosures AE	Model No. SZ
1007.500 ²⁾ , 1013.500 ²⁾ 1018.500 ²⁾ , 1019.500 ²⁾ 1050.500 ¹⁾ , 1057.500 1100.500, 1110.500 1114.500 ¹⁾ , 1130.500 1213.500 ¹⁾ , 1350.500 ¹⁾	2325.000
1009.500 ²⁾ , 1010.500 ²⁾ 1012.500 ²⁾ , 1039.500 1054.500, 1058.500 1060.500, 1076.500 1090.500, 1260.500 ¹⁾ 1339.500, 1360.500 1376.500	2326.000
1014.500 ²⁾ , 1073.500 1077.500	2327.000
1016.500 ²⁾ , 1017.500 ²⁾ 1055.500, 1180.500 1280.500 ¹⁾	2328.000

¹⁾ For these AE models, the door rails should be cut to length.

²⁾ Only in conjunction with perforated mounting strips (see page 965).

Spacers

The universal assembly component for all cases where a distance from the mounting level is required. With self-tapping thread for diameter 4.5 mm. The following components may be attached to the rear using 5.5 x 13 mm screws:

- Top-hat/cross rails
- Contact hazard protection covers
- Master switch trim panels
- Cable clamp rails, etc.

Material:

Hexagonal steel (SW8)

Surface finish:

Zinc-plated, passivated

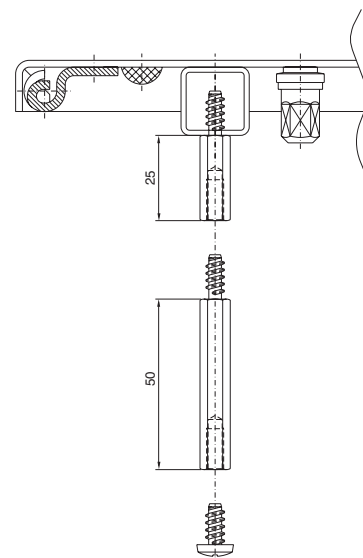


Accessories:

Screws 5.5 x 13 mm, see page 1011.



Length mm	Packs of	Model No. TS
25	12	2311.225
50	12	2311.250





Perforated mounting strip

For AE stainless steel, AP universal console¹⁾

For vertical mounting on the threaded bolts of the door, for attaching

- Support strips for AE, see page 964.
- Door stay SZ 2519.000, see page 967.

3.7 mm diameter hole on a 25 mm DIN pitch pattern.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Packs of 20, including nuts and serrated washers.

To match AE	Length mm	Model No. SZ
1005.500, 1005.600, 1006.500, 1006.600, 1009.600	318	2310.038¹⁾
1012.600, 1014.600	698	2310.076
1016.600, 1018.600	938	2310.100
1017.600, 1019.500, 1019.600	1138	2310.120

¹⁾ For door at top.



Accessories:

Screws, see page 1011.



Utility lectern

For programming units etc. Prepared for mounting on the tubular door frame of TS, CM, ES, PC or on any sufficiently large surface.

When required for servicing, it folds down quickly with a maximum support area, and after use is stowed between the tubular door frames in a space-saving design.

Load capacity: max. 30 kg.

Material:

Sheet steel

Colour:

RAL 7035

Support area		For door width mm	Model No. TS
Width mm	Depth mm		
413	400	600	4638.600
613	400	800	4638.800



Wiring plan lectern

Holds wiring plans during fault finding and maintenance work.

The wiring plan lecterns can be bayed according to the door width.

For mounting on the tubular door frame.

Material:

Utility lectern: Polypropylene
Mounting bracket: Die-cast zinc

Colour:

Similar to RAL 7035

Supply includes:

Wiring plan lectern (width 210 mm).
Assembly parts.



For enclosures	Packs of	Model No. TS
TS, CM, ES, PC, TP	1	4120.000

For door width mm	Required/possible number of wiring plan lecterns	
	min.	max.
400	1	1
500	1	1
600	2	2
800	2	3
1000	3	3



CD/disk box

For fixing to all flat, clean surfaces with double-sided adhesive tape.

Capacity:

Max. 10 CDs/DVDs or 18 (3 1/2") disks.

Material:

Polyamide

Colour:

RAL 7033

Packs of	Model No. SZ
1	2446.000

German registered design no. M 92 07 061
U.K. reg. design no. 2 029 365
IR reg. design no. DM/025 474
with validity for FR, IT

Door/locks

Door, internal



Plastic wiring plan pockets for AE

For installation options, refer to table

- B = Screw-fastened to the perforated door strip on both sides
- E = Screw-fastened on one side, other side stuck with adhesive or stuck entirely with adhesive

Supply includes:

2 holders with double-sided adhesive tape, acrylic glazed pane, assembly parts.

Note:

The acrylic glazed pane may be shortened to any required size for shorter doors.



Model No. SZ	2514.500	2514.600	2514.800
Usable width mm	340	415	615
Usable depth mm	18	18	18
Height of acrylic glazed pane mm	167	167	167

Installation options

For Model No. AE	Width mm			
1050.500	500	B	–	–
1054.500	600	E	E	–
1055.500	800	E	E	B
1057.500	500	B	–	–
1058.500	600	E	E	–
1060.500	600	E	E	–
1073.500	760	E	E	–
1076.500	600	E	E	–
1077.500	760	E	E	–
1090.500	600	E	E	–
1100.500	1000	B	–	–
1110.500	1000	B	–	–
1114.500	1000	B ¹⁾	–	–
1130.500	1000	B	–	–
1180.500	800	E	E	E
1213.500	1000	B ¹⁾	–	–
1260.500	600	E	B	–
1280.500	800	E	E	B
1350.500	500	B	–	–
1360.500	600	E	E	–
1376.500	600	E	E	–

¹⁾ Prepared for the installation in the l/h side door; for installation in the r/h side door, the acrylic glazed pane can be shortened.

Door, internal



Plastic wiring plan pockets

For affixing to the inside surfaces of doors.

Material:

Polystyrene with self-adhesive fastening strips.

Colour:

Similar to RAL 7035

For format	Clearance openings mm			Model No. SZ
	W	H	D	
A3 landscape	438	286	45	2513.000
A4 portrait	228	254	17	2514.000
A5 landscape	228	174	17	2515.000

B
7.4



Wiring plan pockets with transparent pouch

With welded-on transparent pouch and self-adhesive backing.

For format	Model No. SZ
DIN A4	2510.000
DIN A3	2512.000



Wiring plan pockets of sheet steel

for TS, CM, ES, PC, TP pedestal

For fastening to tubular door frames at any height.

Colour:
RAL 7035

Supply includes:
Assembly screws



To fit door width mm	Clearance openings mm		Model No. TS	
	W	H	D 90 mm	D 35 mm
400	255	260	4114.000	–
500	355	260	4115.000	4115.500
600	455	260	4116.000	4116.500
800	655	260	4118.000	4118.500
900	755	260	4123.000	–
1000	855	260	4124.000	–



Door stay

To secure the door in the open position.



For	Assembly	Packs of	Model No.
TS, ES, PC, AP universal console	Bottom	5	4583.000
AP one-piece console	Top	5	2518.000
CM, TP	Top	2	2519.200
AE (except AE 1032.500 and AE 1035.500) and all AE stainless steel enclosures ¹⁾	Top	5	2519.000
AE IP 69K	Top	1	1101.800

¹⁾ With AE stainless steel, only in conjunction with perforated mounting strip, see page 965.



Ride-up roller

for TS, ES, PC

Lifts the door with heavy installed equipment (e. g. cooling unit) as a closing aid. For attaching to the tubular door frame.

Packs of	Model No. TS
10	4538.000



Transport and mounting handle

for doors TS, ES

For secure attachment and dismantling of the door and for movement into the workshop. The matching hinge pin removal tool for 130° hinges is pre-integrated, and supplied loose for 180° hinges.

Packs of	Model No. SM
1	2415.100

Door/locks

Door, internal



Document clip, magnetic

For simple attachment of installation documentation as a reminder or for flexible accommodation of a wide range of documents, measurement records, test reports etc. May be attached to any magnetisable surface via a permanent magnet.

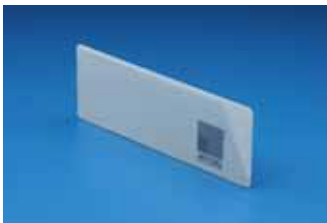
Material:

Plastic: Transparent
Grips: Black

Supply includes:

2 mounting clamps
including permanent magnet.

Packs of	Model No. DK
2	7950.200



Alternate frame, magnetic

For individual marking or labelling of the existing network infrastructure.

The magnetic surface facilitates flexible mounting on all magnetisable surfaces. Adhesive strips are supplied for non-magnetic surfaces. The maximum size of the labels is 130 x 50 mm.

Material:

Plastic

Supply includes:

Alternate frame, magnetic,
labels,
double-sided adhesive tape.

Packs of	Model No. DK
10	7950.150



Rain canopies

for AE, CM

Reliable protection for outside siting – with water run-off to the rear. Easily retro-fitted.

Supply includes:

Assembly parts.



Accessories:

Condensate discharge, see page 916.
Pressure relief valve, see page 916.
Wall mounting brackets SZ 2503.0X0 and SZ 2508.0X0 may be used, see page 975.

Note:

For outdoor siting, we generally recommend a rain canopy above the enclosure or the gap between the door or screw-fastened rear panel and the enclosure, in order to protect against water and UV radiation.

The tests of IP protection categories for water protection (2nd code number to EN 60 529/09.2000) cannot be compared with an enclosure sited outdoors or under similar conditions.

Upon request, rain canopies of sheet steel, stainless steel or aluminium can also be produced for other enclosures.



for AE, sheet steel version

Material:

Sheet steel

Surface finish:

Powder-coated in textured RAL 7035

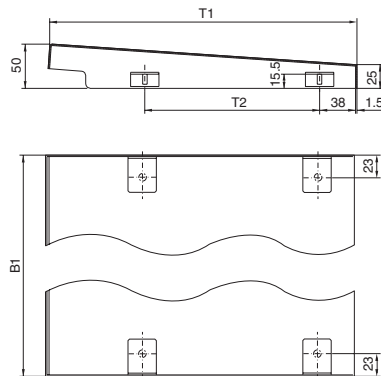
for AE, stainless steel version

Material:

Stainless steel 1.4301 (AISI 304)

Surface finish:

Brushed, grain 240



B1 = Enclosure width + 11 mm
T1 = Enclosure depth + 25 mm
T2 = Enclosure depth – 90 mm, from enclosure width 600 mm – enclosure depth 115 mm

For AE enclosures	Model No. SZ
1031.500, 1038.500, 1380.500	2501.500
1039.500, 1060.500, 1076.500	2502.500
1339.500, 1360.500, 1376.500	2511.500

For AE enclosures	Model No. SZ
1002.600, 1035.500	2470.000
1003.600, 1005.500, 1005.600, 1033.500, 1034.500	2361.000
1004.600, 1030.500	2471.000
1006.500, 1006.600, 1008.600, 1011.600, 1031.500, 1038.500, 1380.500	2472.000
1007.600, 1050.500	2362.000
1009.600, 1010.500, 1010.600, 1012.600, 1039.500, 1060.500, 1076.500	2473.000
1014.600, 1073.500	2474.000
1016.600, 1017.600, 1055.500, 1180.500, 1280.500	2475.000
1018.600, 1019.500, 1019.600, 1110.500, 1114.500, 1130.500, 1213.500	2363.000

Possible alternative:

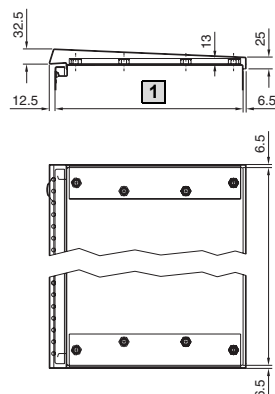
Compact enclosures Hygienic Design, see page 299.



for CM, sheet steel version

Benefits:

- Mounting via the two holes in the top of the CM
- At the front, with integrated ventilation holes at the top



1 Enclosure depth
2 Enclosure width

Width mm	Depth mm	Model No. CM
600	300	5001.300
600	400	5001.310
800	300	5001.320
800	400	5001.330
1000	300	5001.340
1000	400	5001.350
1200	400	5001.360

Material:

Sheet steel

Surface finish:

Powder-coated in textured RAL 7035

Roof/wall mounting

Roof



Dust guard trim

for AE, CM, EB, KL and BG

To protect against deposits on the upper edge of the door and between the enclosure and the door/lid. Cut the door protection strip to length according to the enclosure width. Drill the enclosure and mount the strip using the adhesive strips and screws.

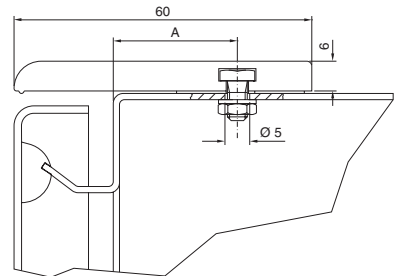
Material:

Plastic, UV-resistant

Colour:

Similar to RAL 7024

For enclosure	Length mm	A mm	Model No. SZ
AE	1200	25	2426.500
CM		20	
KL, EB, BG		20.5	



Dust guard trim

for TS, ES

To protect against dust deposits on the upper edge of the door and between the door and upper horizontal enclosure section. The dust guard trim provides space to accommodate texts or company logos.

Colour:

RAL 7035

Supply includes:

Clear plastic strip for text labels (height 29.5 mm).

Length mm	Model No. SZ
600	2424.100
800	2425.100
1000	2427.100
1200	2426.100

Note:

Also suitable for use in conjunction with baying cover top, see page 932.



Top mounting module

for TS, FR(i)

As a cable chamber for cable infeed from above or for power distribution with busbar systems across bayed enclosures. The TS cover plate is used as standard to finish off at the top. The enclosure height is increased by 200 mm with the top mounting module fitted.

The top baying cover cannot be fitted. Installation accessories for top and bottom, see diagram and explanations below.

Material:

Sheet steel, 1.5 mm

Surface finish:

Spray-finished in textured RAL 7035

Protection category:

IP 55 to EN 60 529/09.2000

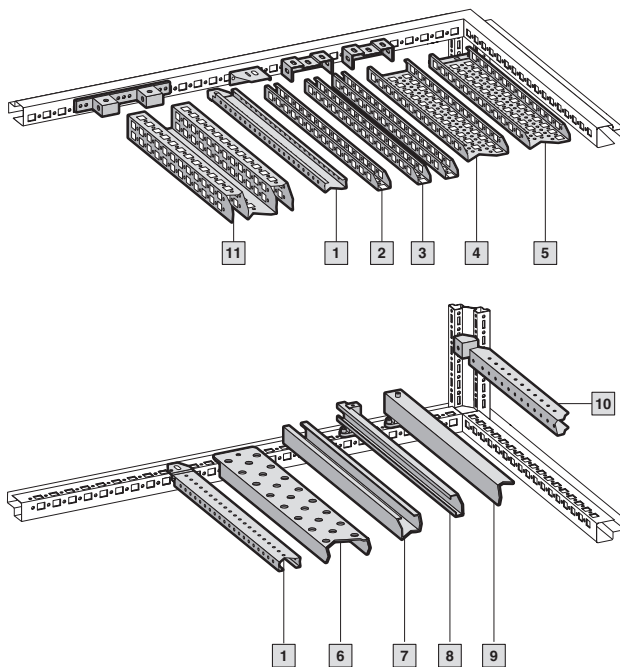
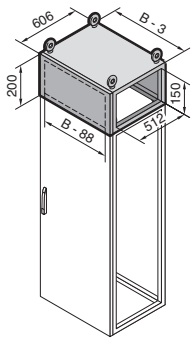
Complies with NEMA 12 (in conjunction with side panel for top mounting module, see page 971).



For enclosures		Model No. TS
Width (B) mm	Depth mm	
400	600	8801.725
600	600	8801.735
800	600	8801.745
1000	600	8801.755
1200	600	8801.765

Supply includes:

- 1 frame module,
- 2 trim panels (front and rear),
- 8 holders with automatic potential equalisation,
- 4 tapped rods with eyebolts.



! Accessories:

Description	Page
1 TS punched rail 18 x 38 mm	996
2 PS punched rail 23 x 23 mm with angle bracket	998
3 PS punched rail 23 x 23 mm with support bracket	998
4 PS punched section without mounting flange 23 x 73 mm, with support bracket PS	998
5 PS punched section with mounting flange 23 x 73 mm	999
6 Support rail	1001
7 System support rails	1000
8 C rail 30/15 with support bracket or spacer	999
9 Cable clamp rail	1061
10 TS punched rail 25 x 38 mm	996
11 TS punched section without mounting flanges, 45 x 88 mm	995



Side panel

for top mounting module

To finish off the side of a top mounting module or bayed suite.

Material:

Sheet steel, 1.5 mm

Surface finish:

Spray-finished in textured RAL 7035

Supply includes:

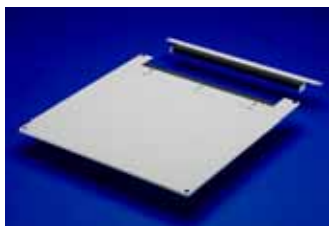
- 2 side panels,
- 8 retainers with automatic potential equalisation.



Packs of	Model No. TS
2	8801.775

Roof/wall mounting

Roof



Roof plate

for cable entry, two-piece for DK-TS, FR(i)

In exchange for the standard roof. Equipped with a sliding angular bracket in the rear section. Rubber cable clamp strip on both sides for attaching cable bundles and bunched cables. Thanks to the symmetrical design of the TS 8 frame, side cable entry can also be achieved by rotating the roof plate.

The two-piece design additionally allows easy retro-fitting, by simply removing the front part of the plate for retrospective cable entry.

For active ventilation, a fan mounting plate may be fitted in the front section of the enclosure (only with TS, not in conjunction with 482.6 mm (19") mounting frames). To this end, the roof plate must be raised by at least 20 mm using spacers.

Material:
Sheet steel

Colour:
RAL 7035



Roof plate

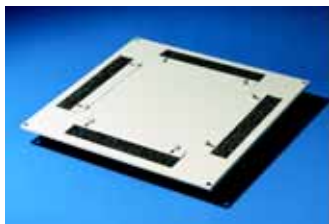
for cable entry on all sides, for DK-TS, FR(i)

The roof plate has sliding plates for cable entry on all four sides, and therefore allows individual selection of cable routing tailored to the specific requirements. After cable entry, the sliding plate is closed again as far as possible, and the rubber cable clamp strips supplied loose then seal the cable entry area.

Material:
Sheet steel

Colour:
RAL 7035

Supply includes:
Assembly parts.



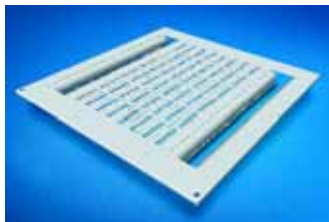
Cable management roof plate

for DK-TS, FR(i)

In exchange for the standard roof plate. Thanks to the rounded side cut-outs, large quantities of cables may be routed into the rack whilst preserving the bend radii. The roof has system punchings for the attachment of cables with nylon tape or cable ties.

Material:
Sheet steel

Colour:
RAL 7035



For enclosures		Model No. DK
Width mm	Depth mm	
600	400	7826.645 ¹⁾
600	600	7826.665
600	800	7826.685
600	900	7826.695
600	1000	7826.605
600	1200	7826.625
800	400	7826.845
800	600	7826.865
800	800	7826.885
800	900	7826.895
800	1000	7826.805
1200	400	7826.245
800	1200	7826.825

¹⁾ Delivery times available on request.



Accessories:

Fan mounting plate, see page 703.

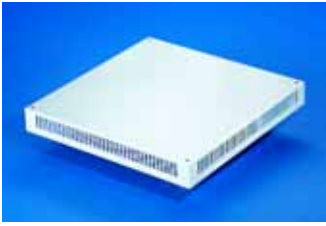
Spacers, see page 974.

Detailed drawing, available on the Internet.

For enclosures		Model No. DK
Width mm	Depth mm	
800	800	7826.588
800	900	7826.589 ¹⁾

¹⁾ Delivery times available on request.

Detailed drawing, available on the Internet.



Roof plate, vented

for DK-TS, FR(i)

In exchange for the standard roof.

Variant 1:

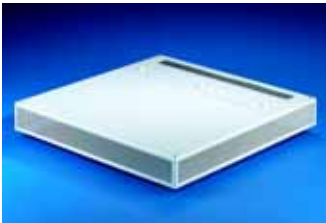
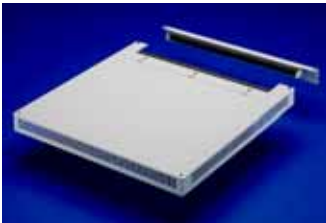
72 mm high roof plate, all-round vent slots, optionally with clamp strip for cable entry. The two-piece design with cable entry allows easy retro-fitting, by simply removing the front part of the plate. The cables are held in position via a guide at the side.

Material:

Sheet steel

Colour:

RAL 7035



Variant 2:

Ventilation holes (Ø 5 mm) are incorporated all-round into the 97 mm high roof plate. In conjunction with the vented glazed and sheet steel door, the roof plate matches the door design to perfection.

Material:

Sheet steel

Colour:

RAL 7035

For enclosures		Model No. DK	
Width mm	Depth mm	One-piece without cable entry	Two-piece with cable entry
600	600	7826.766	7826.669
600	800	7826.768	7826.689
600	900	7826.769¹⁾	7826.699
600	1000	7826.760¹⁾	7826.609
800	600	7826.786	7826.869
800	800	7826.788	7826.889
800	900	7826.789¹⁾	7826.899
800	1000	7826.780	7826.809

¹⁾ Delivery times available on request.

For enclosures		Model No. DK
Width mm	Depth mm	
800	600	7826.866
800	800	7826.886
800	900	7826.896¹⁾
800	1000	7826.806¹⁾

¹⁾ Delivery times available on request.



Accessories:

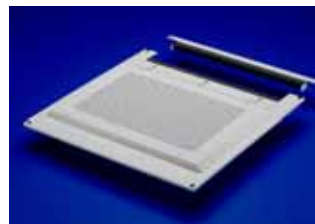
Fan mounting plate for active ventilation see page 703.

Detailed drawing, available on the Internet.



Roof-mounted fan for DK-TS, FR(i)

For the office sector, see page 702.



Fan roof, modular, two-piece for DK-TS, FR(i)

see page 705.



Roof plates TS

for TopTherm roof-mounted cooling units, roof-mounted fans and vent attachments TS, see page 718.



Cooling components

for the entire IE and IT sector, from page 628.

Roof/wall mounting

Roof



Roof mounting screw

For screw-fastening the roof plate instead of eye-bolts. With the TS 8, the contact washers for potential equalisation may be taken from the eye-bolts included with the supply of the enclosures.

Material:

Sheet steel, zinc-plated, passivated

Packs of	Model No. PS
20	4198.000



Spacers

for roof plate TS

To raise the TS 8 roof for ventilation purposes, in three different heights.

Not suitable for crane transportation!

Material:

Hexagonal sectional steel, zinc-plated, passivated

Supply includes:

Assembly parts.

Height mm	Packs of	Model No. SZ/DK
10	4	2422.000
20	4	2423.000
50	4	7967.000



Spacers

for cover plates TE

To assist passive ventilation spacers may be used to raise the cover plates.

Material:

Hexagonal sectional steel, zinc-plated, passivated

Supply includes:

Assembly parts.

Height mm	Packs of	Model No. TE
20	4	7526.963

Note:

Spacers are already included with the supply of the TE enclosures.



Eyebolts

for TS, ES

For crane transportation of enclosures, may already be included in the supply.

Thread: M12

Packs of	Model No. PS
4	4568.000



Eyebolts

for CM

For crane transportation of enclosures, with reinforcement plate to be inserted underneath.

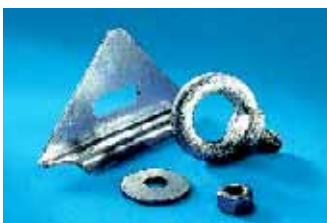
Mounting via the two holes in the top of the CM.

Thread: M12

Supply includes:

Eyebolts, reinforcement plates.

Packs of	Model No. CM
2	2509.500



Eyebolts

for AE

For crane transportation of enclosures, with reinforcement plate to be inserted underneath.

Thread: M12

Supply includes:

Eyebolts, reinforcement plates.

Packs of	Model No. SZ
4	2509.000



Wall mounting bracket

For the attachment of KL, EB, BG and EL enclosures as well as DK and FM wall-mounted distributors.

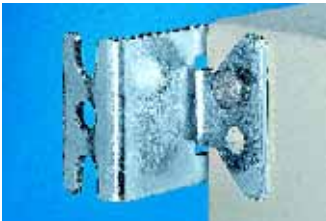
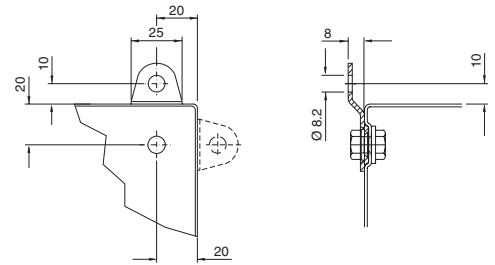
Supply includes:

Assembly parts for mounting on the enclosure.

Note:

For hygiene reasons, and in view of the protection category, the stainless steel enclosures do not have any drilled holes for the wall mounting brackets.

Material	Wall distance mm	Packs of	Model No. SZ
Brass, nickel-plated	8	4	1580.000
Sheet steel, zinc-plated, passivated	8	4	1590.000
Stainless steel 1.4301 (AISI 304)	8	4	1594.000



Wall mounting bracket

For the attachment of KL, EB, BG, AE, CM and EL enclosures, TP consoles as well as DK, FM wall-mounted distributors and small fibre-optic distributors.

Supply includes:

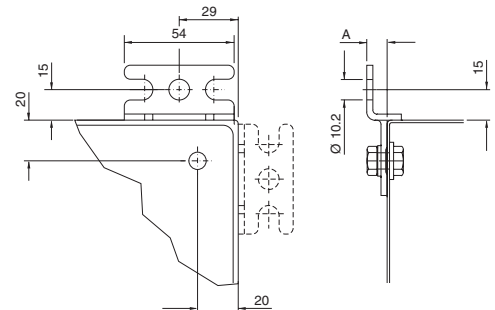
Assembly parts for mounting on the enclosure.

Note:

For hygiene reasons, and in view of the protection category, the stainless steel enclosures and TP consoles do not have any drilled holes for the wall mounting brackets.

Material	Wall distance (A) mm	Packs of	Model No. SZ
Sheet steel, zinc-plated, passivated	40	1	2503.000 ¹⁾
		4	2503.010
	10	1	2508.000 ¹⁾
		4	2508.010
Stainless steel 1.4301 (AISI 304)	10	4	2433.000
Stainless steel 1.4404 (AISI 316L)	10	4	2433.500

¹⁾ Without assembly parts.



Possible alternative:

Wall spacer bracket Hygienic Design, see page 301.



Wall mounting bracket

for KS

For attachment to the wall, only possible from the outside of the enclosure.

Material:

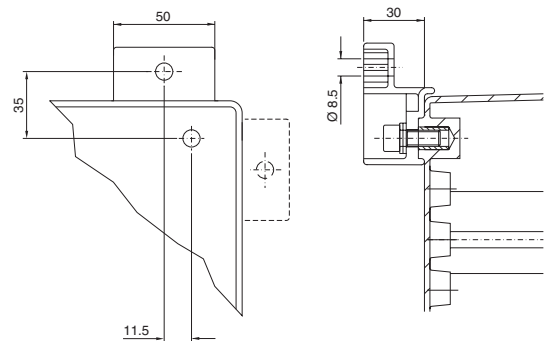
Fibreglass-reinforced polyamide¹⁾

Supply includes:

Assembly parts for mounting on the enclosure.

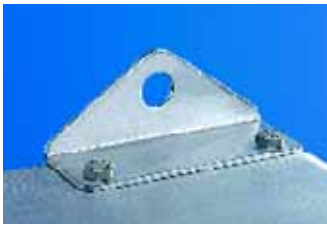
Colour	Packs of	Model No. KS/KE
Similar to RAL 7035	4	1483.010
Similar to RAL 9011	4	9266.000 ¹⁾

¹⁾ With graphite additive for Ex applications.



Roof/wall mounting

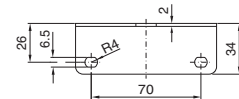
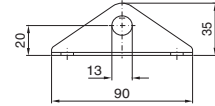
Wall mounting



Wall angle

For compact enclosures (additional holes required in the enclosure).

Material	Colour	Packs of	Model No. SZ
Sheet steel	RAL 7035	1	2505.500
Stainless steel 1.4301 (AISI 304)	-	1	2583.000



Wall bracket

For wall attachment of TS and ES enclosures at the roof, e. g. with heavy components on the door or built-in swing frame.

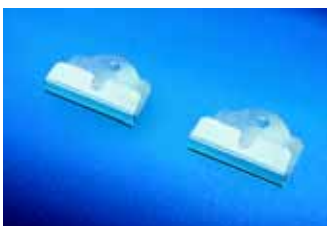
Material:

Sheet steel, zinc-plated, passivated

Packs of	Model No. PS
4	4595.000

➡ Possible alternative:

With TS 8 inside the enclosure (without mounting plate), buying bracket TS 8800.470, see page 931.



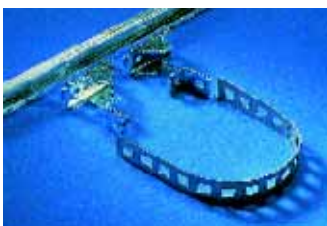
Wall mounting bracket

for CS wall-mounted enclosures
For mounting on a wall or panel.

Material:

Stainless steel 1.4301 (AISI 304)

Packs of	Model No. CS
4	9765.120



Pole clamp

For reliable, convenient fastening to round or square poles.

For pole diameter/size:

Ø from 40 to 190 mm

□ from 50 to 150 mm

Material:

Mounting angles, clamping section:

Sheet steel, zinc-plated, passivated

Clamping strap: Stainless steel 1.4301 (AISI 304)



For KL, EB, BG, AE, KS

Supply includes:

2 mounting angles, 600 mm long,
4 clamping sections,
2 clamping straps,
4 clamping brackets,
4 screws and nuts M8
for attachment to the enclosure.

Packs of	Model No. SZ
1 set	2584.000



For CS wall-mounted enclosures

Supply includes:

4 clamping sections,
2 clamping straps,
4 clamping brackets.

Packs of	Model No. CS
1 set	9765.125



Enclosure connectors

adjustable

Between Command Panels, terminal boxes, compact enclosures and horizontal or vertical surfaces. Pre-mount the connector halves on both sides, screw together and secure with a locking screw, and/or adjust the angle of rotation.

Rotation range:
±105° with 7.5° stepped increments.

Material:
Die-cast zinc, powder-coated

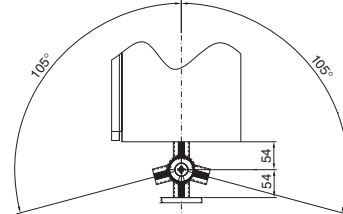
Colour:
RAL 7035

Supply includes:
Assembly parts for both sides.

Packs of	Model No. CP
1 set	6016.200

Note:

The locking screws may be exchanged for standard, commercially available clamping levers (M10 x 50 mm).



Frame connector, adjustable for Comfort Panel

Between the operating and keyboard housing and horizontal or vertical surfaces.

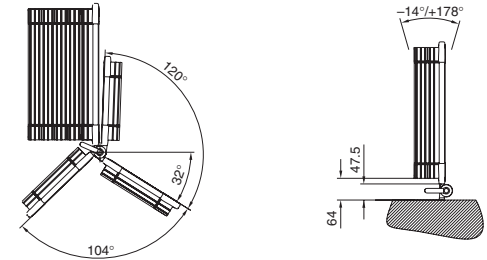
Rotation range:
Adjustable via teeth in 8° increments, see drawing.

Material:
Die-cast zinc, powder-coated

Colour:
RAL 7024

Supply includes:
Assembly parts and clamping levers for both sides.

Packs of	Model No. CP
1 set	6005.500



Wall mounting bracket

vertically hinged

Between the Compact Panel and horizontal or vertical surfaces.

Rotation range:
180° adjustable on a 7.2° pitch pattern.

Material:
Wall mounting bracket: Sheet steel
Knurled screw: Steel with plastic knurled handle

Supply includes:
Locking screw and assembly parts for mounting on the Compact Panel.

Packs of	Model No. CP
1 set	6341.000



Interior installation

Mounting plates



Mounting plates

for KL

For component installation outside of the enclosure. Assembly screws included as accessories with the enclosure.

Material:

Sheet steel, 2 mm, zinc-plated, passivated



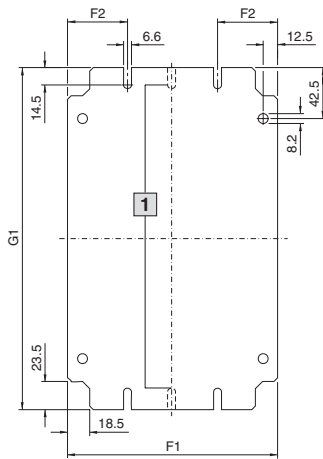
Accessories:

Self-tapping screws, SZ 2487.000, see page 1011.



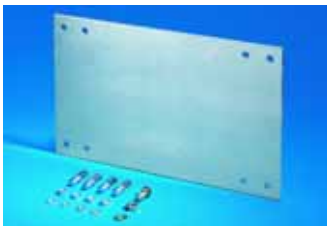
Possible alternative:

Support rails, see page 1002.



1 Attachment in the centre only for 125 mm wide plates

For size mm	For Model No. KL	Dimensions in mm			Model No. KL
		G1	F1	F2	
150 x 150	1500.510, 1514.510, 1521.010	135	125	–	1560.700
200 x 150	1528.510, 1529.510	185	125	–	1575.700
300 x 150	1501.510, 1515.510, 1522.010, 1530.510	285	125	–	1561.700
400 x 150	1589.510	385	125	–	1576.700
200 x 200	1502.510, 1516.510, 1523.010	185	175	50	1562.700
300 x 200	1503.510, 1517.510, 1524.010, 1531.510	285	175	50	1563.700
400 x 200	1504.510, 1518.510, 1525.010, 1532.510	385	175	50	1564.700
500 x 200	1505.510, 1533.510	485	175	50	1565.700
600 x 200	1506.510, 1519.510, 1534.510	585	175	50	1566.700
800 x 200	1527.510, 1542.510	785	175	50	1574.700
300 x 300	1507.510, 1526.010, 1535.510	285	275	50	1567.700
400 x 300	1508.510, 1536.510	385	275	50	1568.700
500 x 300	1509.510, 1537.510	485	275	50	1569.700
600 x 300	1510.510, 1538.510	585	275	50	1570.700
400 x 400	1511.510, 1539.510	385	375	62.5	1571.700
600 x 400	1512.510, 1540.510	585	375	62.5	1572.700
800 x 400	1513.510, 1541.510	785	375	62.5	1573.700



Mounting plate

for Premium Line KL

For installing at a distance from the rear panel.

Material:

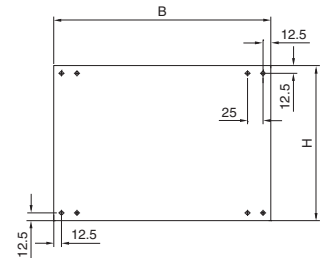
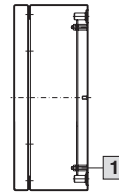
Sheet steel, zinc-plated, passivated

Supply includes:

Spacer bolts and assembly parts.

For KL enclosures	W (B) mm	H mm	Packs of	Model No. KL
1024.010 1024.020	100	100	1	1024.910
1024.030	250	150	1	1024.920
1024.040	350	250	1	1024.930

Mounting plate attachment



1 Spacer bolts M5 x 15

Mounting plate attachment

For additional clamping and to reduce potential vibration of the mounting plate. Select according to mounting position, installation type and enclosure.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.



For TS

Installation options:

- Side, at half height in conjunction with mounting plate infill
- In the penultimate position
- Set forward (supplied state)

Advantage:

No impairment to the mounting surface, but mounting is only possible from the enclosure rear.

Packs of	Model No. TS
10	8800.630



Accessories:

Mounting plate infill, see page 981.



For TS

Installation options:

- Side
- Rear, flush with enclosure frame

Advantage:

No impairment to the mounting surface, but mounting is only possible from the enclosure rear.

Packs of	Model No. TS
10	8800.610



For TS

Installation options:

- Side
- Rear, flush with enclosure frame
- Set forward on a 25 mm pitch pattern

Advantage:

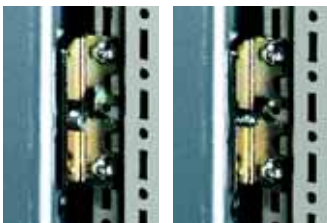
No impairment to the mounting surface. May optionally be used for attachment or screw fastening.

Packs of	Model No. TS
10	8800.090



Also required:

Punched section with mounting flange 17 x 73 mm for the inner mounting level, see page 993 (with Fig. 3).



1

2

1 Mounting plate screw-fastened in the rear-most installation position.

2 Mounting plate screw-fastened from the rear in the rear-most installation position.

3 Mounting plate in a set forward position, either attached or screw-fastened (not shown).



3



For TS

Installation options:

- Side
- Rear, flush with enclosure frame

Slide over the plate at the side and secure with screws. Additionally, the mounting plate may be drilled and screw-fastened at the rear C-edge.

Packs of	Model No. TS
10	8800.050

Interior installation

Mounting plates

Mounting plate attachment

For additional clamping and to reduce potential vibration of the mounting plate. Select according to mounting position, installation type and enclosure.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.



For TS, ES

Installation options:

- All-round
- Set forward on a 25 mm pitch pattern

Slide in between the bar and plate from below or above or from the side, and secure with screws.

Packs of	Model No. TS
10	4593.000



Also required:

Support strip (with TS for inner level), see page 997 or punched section with mounting flange (with TS for inner level), see page 993 or punched rails and punched sections, see page 998.



For TS, ES

Installation options:

- On the top and bottom of the mounting plate (with ES all-round)
- Rear, flush with enclosure frame

Screw in the clip behind the plate and secure with screws.

Packs of	Model No. TS
10	4576.000

Installation kit

For mounting plates TS, back-to-back

Thanks to a minimum distance between the two mounting plates, a maximum installation depth is achieved for installed equipment on both sides.

Material:

Sheet steel, zinc-plated, passivated

Note:

Build height front and rear with central installation = (enclosure depth minus 48 mm) : 2
 For example:
 TS 8806.521 = depth 600 mm
 Build depth = 2 x 276 mm

Packs of	Model No. TS
1 set	8800.280



Rittal service:

Enclosures with 2 mounting plates (mounted in the centre unless otherwise specified) and door(s) on both sides may be ordered as complete units.
Model No.: TS 8xxx.521



Mounting plates

B
7.6



Self-tapping screws

Order information may be found on page 1011.



Sealing frame for through-panel mounting

of the heat sinks of frequency converters

Where the ambient air is cool and clean, through-panel mounting is a very efficient way of dissipating a significant proportion of the heat losses from the enclosure.

Applications:

- In modern drive technology for through-panel mounting the heat sinks of frequency converters, line reactors, braking resistors or other components with external cooling sections
- For recessed installation of the main switch
- For protected mounting of command panels



Installation: Between a cut-out in the rear panel of the enclosure and the mounting plate. Different sizes of sealing frame are used depending on the number of frequency converters.

Function principle:

The heat sinks of frequency converters suitable for through-panel mounting are effectively relocated outside the enclosure. The majority of the heat loss can then be dissipated without affecting the interior climate.

The sealing frame is screw-fastened to the wall or door using studs. On the other side, the seal presses against the rear of the set-forward mounting plate or a partial mounting plate for the master switch.

Material:

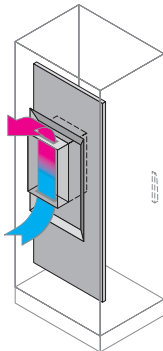
Sheet steel, spray-finished in RAL 7035

Protection category:

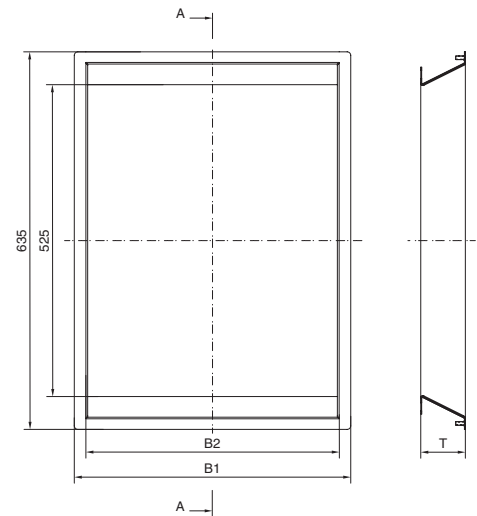
IP 54 (if mounted correctly)

Supply includes:

Seals and assembly parts.



For installing in enclosure width/depth mm	External dimensions of sealing frame mm	Packs of	Model No. SZ
600	465 x 635 x 75	1	2390.000
600	465 x 635 x 100	1	2390.010
800	665 x 635 x 75	1	2390.020
800	665 x 635 x 100	1	2390.030
1000	865 x 635 x 75	1	2390.040
1000	865 x 635 x 100	1	2390.050
1200	1065 x 635 x 75	1	2390.060
1200	1065 x 635 x 100	1	2390.070



W (B1)	W (B2)	D (T)	Model No. SZ
465	420	75	2390.000
465	420	100	2390.010
665	620	75	2390.020
665	620	100	2390.030
865	820	75	2390.040
865	820	100	2390.050
1065	1020	75	2390.060
1065	1020	100	2390.070



Mounting plate infill for TS

for TS

For a continuous mounting surface in bayed suites where the mounting plate is set forward.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.

For enclosure height mm	Model No. TS
1800	4590.700
2000	4591.700
2200	4592.700

Interior installation

Mounting plates



Mounting plate slide block

for CM

In this way, populated mounting plates slide easily into the mounting position for installation and/or clip-fastening.

Benefits:

- Installation without drilling
- Simply screw-fasten to the existing holes in the mounting plate
- May be reused, unscrew to detach

Material:

Polyamide

Colour:

Similar to RAL 9011

Supply includes:

Assembly parts.

Packs of	Model No. CM
2	5001.070



Slide rails

for insertion of mounting plate into TS enclosure

Slides in from the side.

- Attachment of the mounting plate to the slide rails via captive nuts and screws.
- Mounting of the slide rails directly on the enclosure frame, depth-adjustable on a 25 mm pitch pattern.
- Possible mounting depth T 6 – 25 mm (see page 1184).

Material:

Sheet steel

Surface finish:

Zinc-plated, passivated

Supply includes:

Assembly parts.

For enclosure width mm	Packs of	Model No. TS
600	2	8802.260
800	2	8802.280
1000	2	8802.200
1200	2	8802.220



Rittal service:

To order TS enclosures (see page 138 – 147) with fitted slide rails and wide mounting plate (overall width B1 + 2 mm, see page 1184), please add the extension .570 to the Model No. Delivery times on request.



Mounting plate adjustment bracket

for KS

Infinitely adjustable.

Other equipment can also be installed in this way, instead of the mounting plate.

Material:

Sheet steel, zinc-plated, passivated

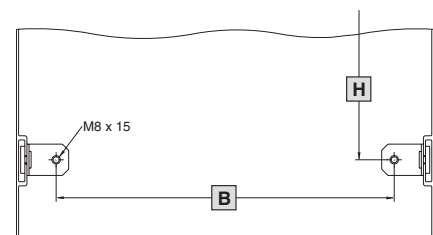
Supply includes:

Assembly parts.

- B** Enclosure width:
 – 76 mm (KS 1481.000)
 – 104 mm (KS 1491.000)

- H** Enclosure height:
 – 150 mm

For enclosures KS	Packs of	Model No. KS
1423.600, 1432.600 1434.600, 1444.600 1446.600, 1448.600 1449.600, 1466.600 1467.600	4	1481.000
1453.600, 1454.600 1468.600, 1469.600 1479.600, 1480.600 1400.600	4	1491.000





Mounting plate attachment

for CM for heavy dynamic loads

For example, if the accompanying enclosures (crane systems, etc.) have to make a direct connection with the wall/support mounting plates as well as an additional connection between the mounting plate and the enclosure in stand-alone versions, i. e. on a base/plinth.

Tested as per DIN EN 60 721 severity 4M4, with a weight of 150 kg evenly distributed over the mounting plate.

Simply screw-fasten to the existing holes in the mounting plate to pre-assemble for:

Wall-mounted from the inside

Direct using a bracket and wall/support-mounted enclosure.

Wall-mounted from the outside

Screws for wall mounting brackets (see page 975) can easily be screwed into the plate nuts from the outside.

Material:

Sheet steel

Surface finish:

Zinc-plated, passivated

Supply includes:

Assembly parts.

Packs of	Model No. CM
1 set	5001.075



Cross-brace for mounting plates

for TS, ES

Additional horizontal rigidity for vibration resistance and/or stabilisation of wide mounting plates. This brace may also be used as an attachment aid for heavy components.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

2 sections,
4 clamps,
4 grub screws M10 x 16 mm.

For enclosure width mm	Model No. TS
1200	4333.120
1600	4333.160
1800	4333.180

Other widths available on request.



Transport handles for mounting plates

for TS, ES

May be used at any given position in the side C-fold.

Benefits include:

- Can be used for people of different heights
- Optimised force transmission
- Easy handling

Packs of	Model No. SZ
2	2415.500

Interior installation

Mounting plates



Partial mounting plates

for TS, Toptec CR

For

- Universal interior installation, also in conjunction with punched sections with mounting flanges and support strips. Defective assemblies are quickly and easily replaced
- Additional mounting levels.

Partial mounting plates are fastened directly onto the vertical enclosure sections via the inner mounting level using the assembly parts supplied loose. In this mounting position (in both the width and the depth) they form one level with TS punched sections with mounting flanges 17 x 73 mm and TS support strips for the inner mounting level.

Material:

Sheet steel, 2.5 mm, zinc-plated, passivated

Supply includes:

Assembly parts.



Accessories:

TS punched section with mounting flange 17 x 73 mm for the outer mounting level, see page 993.

TS support strip, see page 997.

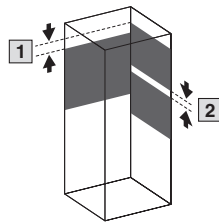
Hinge attachment, see page 985.

Self-tapping screws, SZ 2487.000, see page 1011.

For installation in								Size mm	Packs of	Model No. TS	
Enclosure width mm				Enclosure depth (side) mm							
400	600	800	1000	1200	400	500	600	800			
■	■				■		■		500 x 300	1	8614.640
	■					■	■		500 x 400	1	8614.650
	■						■		500 x 500	1	8614.660
	■	■					■	■	500 x 700	1	8614.680
	■						■		500 x 775	1	8614.675 ¹⁾
■		■			■			■	700 x 300	1	8614.840
		■				■		■	700 x 400	1	8614.850
		■						■	700 x 700	1	8614.880
■			■		■				900 x 300	1	8614.040
			■			■			900 x 400	1	8614.050
	■		■				■		900 x 500	1	8614.060
■				■	■				1100 x 300	1	8614.240
				■		■			1100 x 400	1	8614.250
	■			■			■		1100 x 500	1	8614.260

¹⁾ Also suitable for installing in

- PC enclosures based on TS behind the lower front door
- IW enclosures, height 900 and 1000 mm

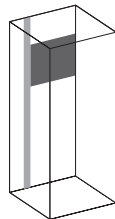


When **installing around corners** due to collision between the assembly components

- 1** At least 75 mm (adjustable on a 25 mm pitch pattern).

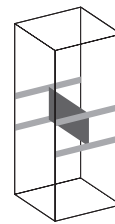
Maximum space utilisation

- 2** 1 mm (adjustable on a 25 mm pitch pattern).



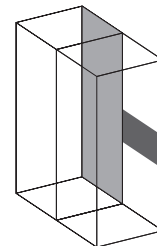
Partial installation

Partial utilisation of the enclosure depth or width is also possible. In this example, using a PS punched section without mounting flange 23 x 73 mm, see page 998.



Set forward installation position

Quickly and easily achieved with four TS punched sections with mounting flanges 17 x 73 mm for the outer mounting level, see page 993.



Continuously flush

In bayed enclosures, the partial mounting plate is in the rear-most position flush with the standard mounting plate. This facilitates continuous component mounting.



Hinge attachment for partial mounting plate TS

Material:
Sheet steel, zinc-plated, passivated

Supply includes:
Assembly parts.

Packs of	Model No. TS
1 set	8614.100

! Also required:

Depending on the installation position

1 Installation kit for swing frame, small, for enclosure width 600 mm, Model No. SR 2377.860, 800 mm, Model No. SR 2377.880, see page 1080.

2 PS punched section without mounting flange 23 x 73 mm according to the enclosure depth, see page 998.
Support brackets TS 8800.330, see page 1007.

Side installation:
In conjunction with hinge, for side panel, see page 918, for an enclosure depth of 600 or 800 mm, side installation is identical to installation parallel to the front.

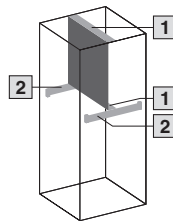
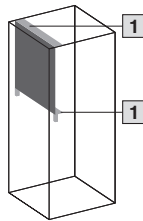


Examples

In the highest or lowest position

Front

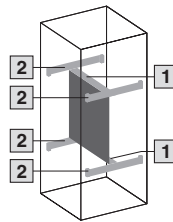
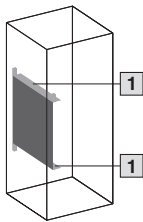
Set back



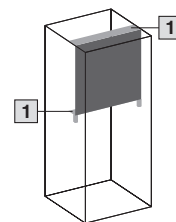
In a central position

Front

Set back



Side installation



Partial mounting plates for ES, CS Basic and modular enclosures

For additional mounting levels.

Material:
Sheet steel 2.5 mm, zinc-plated

Supply includes:
Assembly parts.

For enclosure width mm	Width x height mm	Packs of	Model No. PS
600	492 x 373	2	4131.700
600	492 x 573	2	4132.700
800	692 x 573	2	4137.700

+ Accessories:

PS punched section with mounting flange 23 x 73 mm, see page 999.
Self-tapping screws, SZ 2487.000, see page 1011.

Interior installation

Mounting plates



Partial mounting plates, locatable into rails

for TP

For installation in:

- Console and desk unit on the interior installation system rails
- Punched sections with mounting flanges or support strips fitted to the side of the pedestal in the depth
- Other enclosures mounted on rails with 25 mm pitch pattern punchings

For easy mounting on pre-fitted assembly screws. Can be bayed using the side screws.

Material:

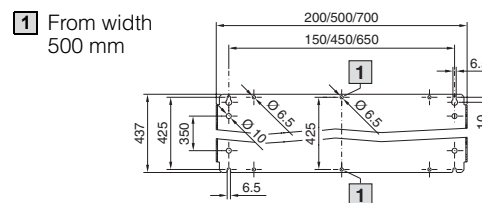
Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.

Width mm	Height mm	Packs of	Model No. TP
200	435	1	6730.310
500	435	1	6730.330
700	435	1	6730.340

For console/desk unit width mm	Max. partial mounting plate installation
600	1 x TP 6730.330
800	1 x TP 6730.340
1200	2 x TP 6730.310 1 x TP 6730.340
1600	3 x TP 6730.330



Support rail, locatable

for TS, CM, PC-TS, TP

To fit:

- Internal mounting behind the mounting compartment, small, of the PC enclosure,
- Mounting on the vertical TS enclosure section,
- Mounting in CM and TP on a rail for internal installation.

Integral 25 mm pitch pattern of holes to accommodate:

- Mounting plate, small
 - PS punched section without mounting flange via support brackets PS as a second mounting level if due to an installed:
 - Mounting plate infill
 - Cable duct, vertical
- no punched sections or other assemblies can be mounted in the depth.

Static load: Max. 15 kg

Material:

Sheet steel 2.0 mm, zinc-plated, passivated

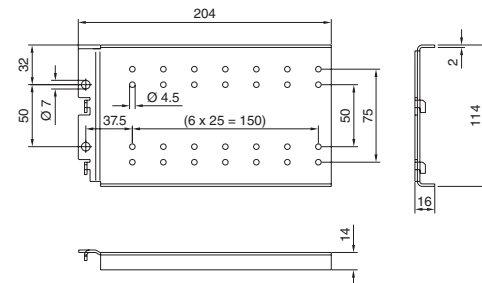
Supply includes:

Assembly parts.

Packs of	Model No. TS
1 set	8612.200

+ Accessories:

PS punched section without mounting flange, see page 998.



Mounting plate, small

For external mounting on:

- Support rail TS, locatable, depth-adjustable on a 25 mm pitch pattern,
- Punched sections with mounting flanges, attached to the outer mounting level.

Material:

Sheet steel 1.5 mm, zinc-plated, passivated

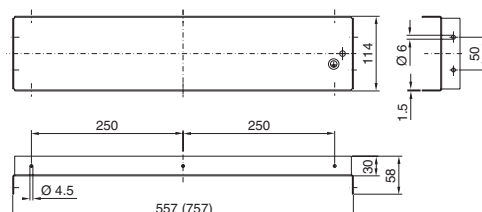
Supply includes:

Assembly parts.

Enclosure width mm	Packs of	Model No. TS
600	1	8612.600
800	1	8612.800

+ Accessories:

TS punched section with mounting flange, see page 993.
Self-tapping screws, SZ 2487.000, see page 1011.





Mounting plate

for TS, 400 mm wide
depth-adjustable on a 25 mm pitch pattern,

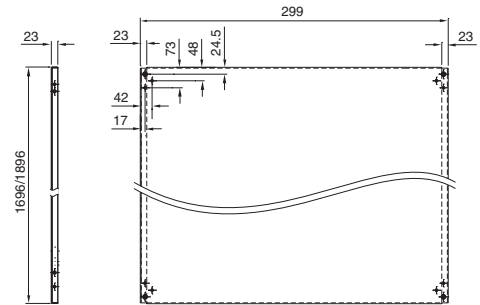
Material:
Sheet steel, 3 mm, zinc-plated, passivated

Supply includes:
Assembly parts.

+ Accessories:

TS 18 x 38 mm punched rail, used as mounting plate slide rail, see page 996.
TS width divider, for installation in wider enclosures, see page 909.

For enclosure height mm	Model No. TS
1800	8614.180
2000	8614.200



Mounting plates

for Topotec CR, CS Basic and modular enclosures

For the configuration of mounting levels.
The mounting plates are depth-adjustable on a 25 mm pitch pattern.

Material:
Aluminium, 3 mm

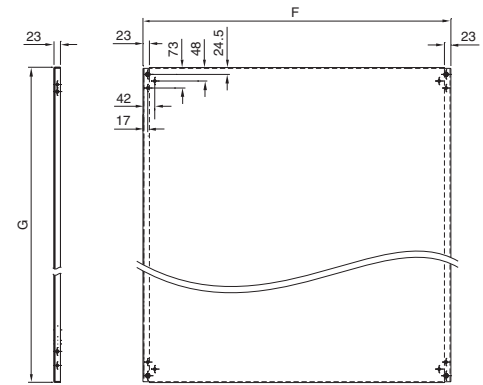
Supply includes:
Assembly parts.

Note:

For an enclosure width of 1200 mm partial installation with one or two 600 mm wide mounting plates is possible.

+ Accessories:

Mounting kit for Topotec CR, see page 987.



For enclosure		F	G	Model No. CS
Width mm	Height mm			
600	800	499	696	9765.090
600	1000	499	896	9765.091¹⁾
600	1200	499	1096	9765.092
600	1400	499	1296	9765.098
600	1600	499	1496	9765.093
800	800	699	696	9765.097
800	1000	699	896	9765.094¹⁾
800	1200	699	1096	9765.095
800	1400	699	1296	9765.099
800	1600	699	1496	9765.096
1200	800	1099	696	9765.190¹⁾
1200	1200	1099	1096	9765.191
1200	1400	1099	1296	9765.192

¹⁾ Delivery times available on request.



Mounting kit

for Topotec CR

For the attachment of mounting plates or swing frames in the enclosure depth.

Material:
Sheet steel, zinc-plated, passivated

Supply includes:
1 set =
2 punched rails and
2 mounting brackets,
assembly parts.

Packs of	Model No. CS
1 set	9765.155

Interior installation

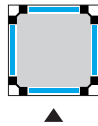
Installation examples TS 8 enclosure system

Overview of TS installation systems

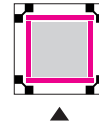
Clearance width

Depending on attachment, the following values apply to the clearance between the mounting levels:

- Outer mounting level = Enclosure width and depth minus 42 mm
- Inner mounting level = Enclosure width and depth minus 88 mm



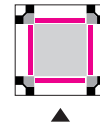
External level



Internal level

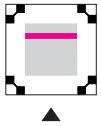


External and internal level



PS-compatible installation

Cover installation



Installation with:

- PS punched section with mounting flange
- PS punched section without mounting flange
- PS punched rail in three mounting variants
- TS punched rails
- TS punched sections without mounting flanges
- TS punched sections with mounting flanges



TS 8 rails for the outer level



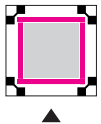
- TS punched sections with mounting flanges
- TS mounting bar
- TS punched rail

Benefits:

- Largest clearance width
- May be installed directly, on one level all round



TS 8 rails, PS rail for the inner level



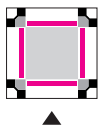
- TS punched sections with mounting flanges
- TS mounting bar
- PS punched section without mounting flange, with support bracket TS

Benefits:

- Use of a second level
- Height-offset mounting all-round



With adaptor rail for PS compatibility

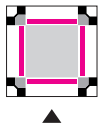


On one level all round with:

- PS punched section without mounting flange, with support bracket PS
- PS punched rail with angle bracket, mounting bracket or support bracket PS

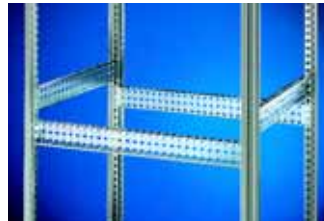


With adaptor rail for PS compatibility

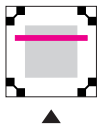


Height-offset in the width and depth with:

- PS punched section with mounting flange
- PS punched rail with mounting bracket
- TS punched rail

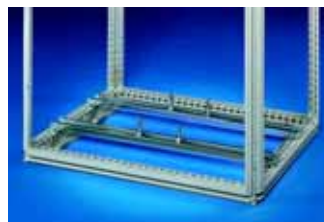


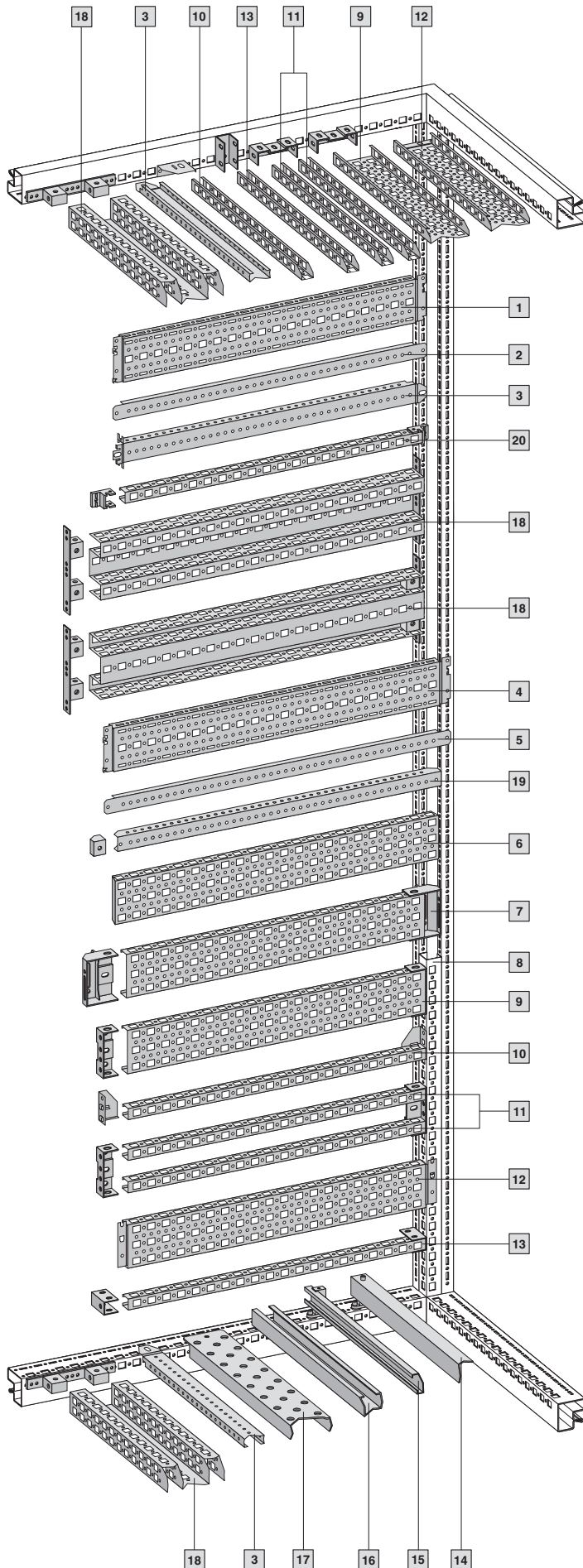
Base installation



Installation with:

- Cable clamp rails
- C rails 30/15 with bracket/spacer
- System support rails
- Support rail
- TS punched rails





Cover installation

Punched sections and rails may be mounted on the horizontal enclosure sections in both the width and depth.

Installation accessories	Page
1 TS punched section with mounting flange 17 x 73 mm for the outer level	993
2 TS support strip for the outer level	997
3 TS punched rail 18 x 38 mm ¹⁾ for the <ul style="list-style-type: none"> • outer level • horizontal enclosure sections • adaptor rail for PS compatibility 	996
4 TS punched section with mounting flange 17 x 73 mm for the inner level	993
5 TS support strip for the inner level	997
6 TS punched section with mounting flange 23 x 73 mm for the inner level	995
7 PS punched section without mounting flange 23 x 73 mm with support bracket TS (alternatively with one or two punched rails 23 x 23 mm)	998
8 Adaptor rail for PS compatibility	997
9 PS punched section without mounting flange 23 x 73 mm, with support bracket PS	998
10 PS punched rail 23 x 23 mm with angle bracket	998
11 PS punched rails 23 x 23 mm with support bracket PS (alternatively with one or two punched rails 23 x 23 mm)	998
12 PS punched section with mounting flange, 23 x 73 mm	999
13 PS punched rail 23 x 23 mm with support bracket	998
14 Cable clamp rail	1061
15 C rails 30/15 with bracket/spacer	999
16 System support rails	1000
17 Support rail	1001
18 TS punched sections without mounting flanges, 45 x 88 mm	995
19 TS punched rail 25 x 38 mm with snap-on nut	996
20 PS punched rail 23 x 23 mm with support bracket TS	998

¹⁾ Two TS punched rails 18 x 38 mm are included in the supply of enclosures with a mounting plate. After installing the mounting plate, the TS punched rail may be inserted, as shown here.

Base installation

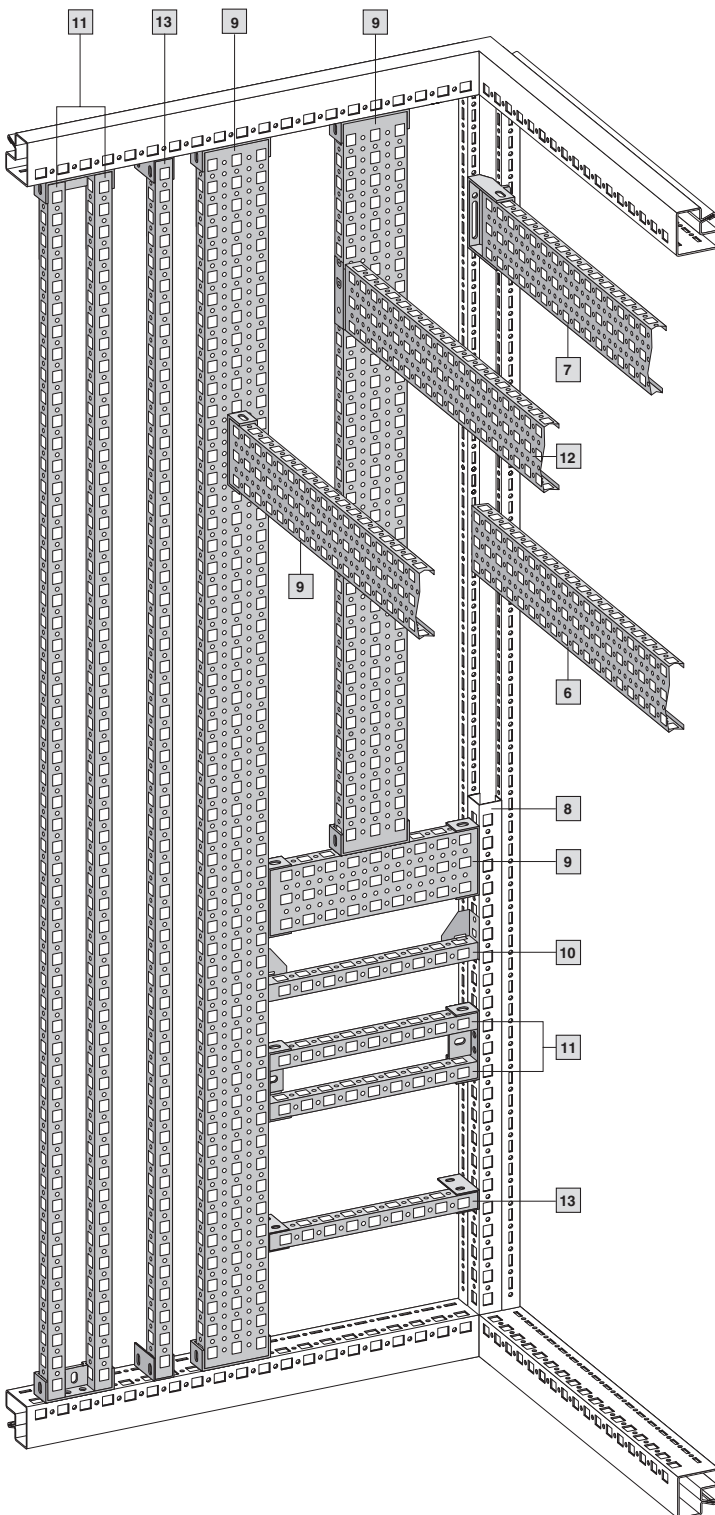
Punched sections and rails may be mounted on the horizontal enclosure sections in both the width and depth.

Interior installation

Installation examples TS 8 enclosure system

Attachment may be made at any point in the TS 8 enclosure space. Not only with horizontal rail installations directly between the TS sec-

tions, but by combining vertical and horizontal rails, any given mounting level in the width, height and depth may be achieved.



Vertical mounting levels – PS compatible

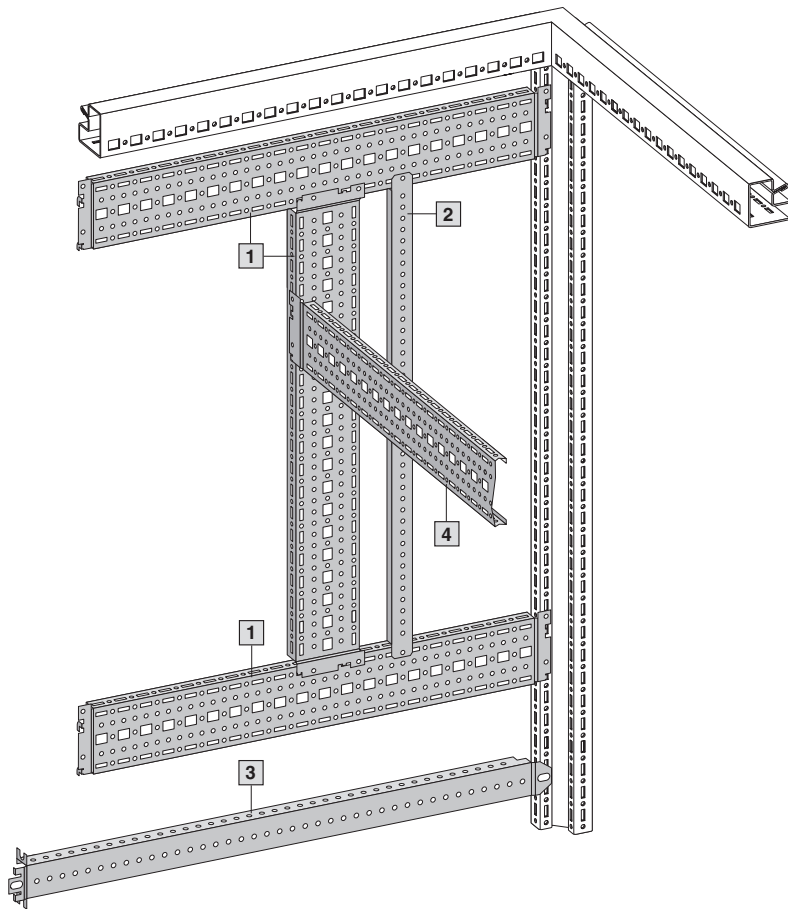


The basis for a second mounting level across the entire enclosure height is quickly achieved, e. g. with two PS punched sections without mounting flanges 23 x 73 mm **9**. Between these two sections, configuration may be achieved with PS punched rails **10**, **11** and **13**, with PS punched sections without mounting flanges **9** and PS punched sections with mounting flanges **12**. When using the adaptor rail for PS compatibility **8**, installation is easily achieved across a suitable sub-height, or with suitable enclosure dimensions, across a sub-width or sub-depth.

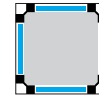
Installation accessories (Consecutive numbering in accordance with diagram on page 989)	Page
6 TS punched section with mounting flange 23 x 73 mm for the inner level	993
7 PS punched section without mounting flange 23 x 73 mm with support bracket TS (alternatively with one or two punched rails 23 x 23 mm)	998
8 Adaptor rail for PS compatibility	997
9 PS punched section without mounting flange 23 x 73 mm, with support bracket PS	998
10 PS punched rail 23 x 23 mm with angle bracket	998
11 PS punched rails 23 x 23 mm with support bracket PS (alternatively with one or two punched rails 23 x 23 mm)	998
12 PS punched section with mounting flange, 23 x 73 mm	999
13 PS punched rail 23 x 23 mm with support bracket	998



If PS punched rails or PS punched sections without mounting flanges are installed vertically on roof or base frames, a PS rail is also required for horizontal sub-division.



Vertical outer mounting level



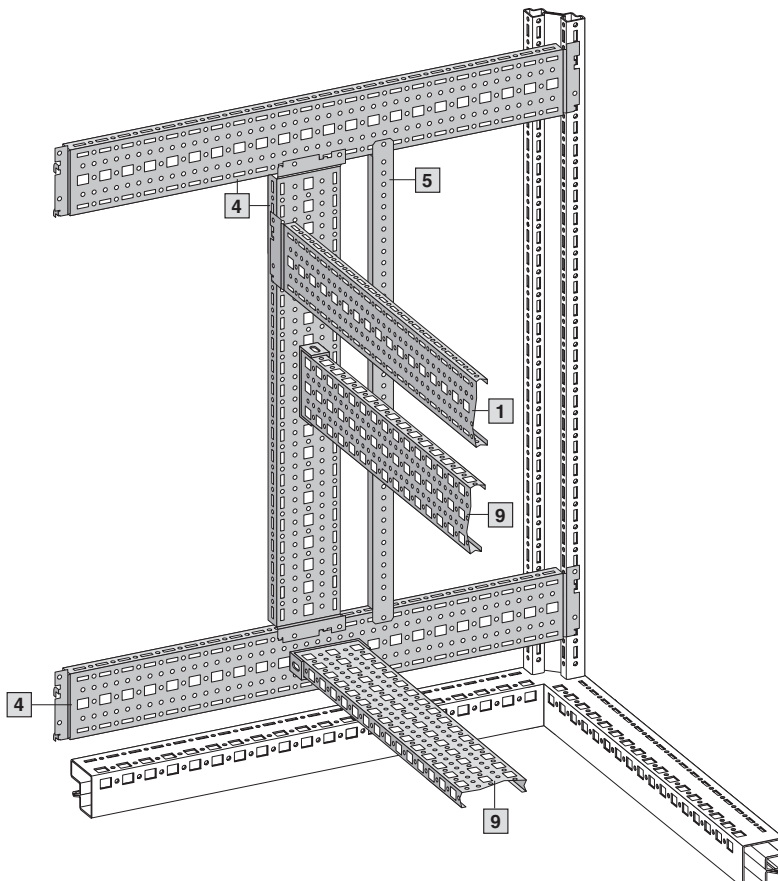
Optimum space utilisation and super-fast assembly by mounting the TS punched section with mounting flange directly onto the outer level of the TS 8 vertical section. Simply snap into position and secure!

Installation accessories (Consecutive numbering in accordance with diagram on page 989)	Page
1 TS punched section with mounting flange 17 x 73 mm for the outer level	993
2 TS support strip for the outer level	997
3 TS punched rail 18 x 38 mm ¹⁾ for the <ul style="list-style-type: none"> • outer level • horizontal enclosure sections • adaptor rail for PS compatibility 	996
4 TS punched section with mounting flange 17 x 73 mm for the inner level	993

¹⁾ Two TS punched rails 18 x 38 mm are included in the supply of enclosures with a mounting plate. After installing the mounting plate, the TS punched rail may be inserted, as shown here.



German patent no. 196 47 802

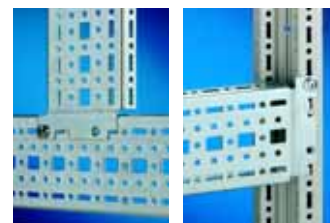


Vertical inner mounting level



Separate utilisation of the inner level of the TS 8 vertical section, irrespective of the outer level, creates additional opportunities. Even in one enclosure, all installation systems may complement one another perfectly for brand new, customer-specific solutions. Endless possibilities! Simply snap into position, secure, and voilà! Super-fast assembly by mounting the TS punched section with mounting flange directly onto the inner level of the TS 8 vertical section.

Installation accessories (Consecutive numbering in accordance with diagram on page 989)	Page
1 TS punched section with mounting flange 17 x 73 mm for the outer level	993
4 TS punched section with mounting flange 17 x 23 mm for the inner level	993
5 TS support strip for the inner level	997
9 PS punched section without mounting flange 23 x 73 mm, with support bracket PS	998



German patent no. 196 47 802

Interior installation

Rail systems



Rails for interior installation

for CM, TP

For mounting on the existing threaded bolts.
With TS system punchings on three sides.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.



Width mm		Height mm		Packs of	Model No. CM
CM	TP ¹⁾	CM	TP ²⁾		
600	600	600	675	4	5001.050
800	800	800	–	4	5001.051
1000	–	1000	–	4	5001.052
1200	1200	1200	–	4	5001.053
–	–	1400	–	4	5001.054
–	1600	–	–	4	5001.055

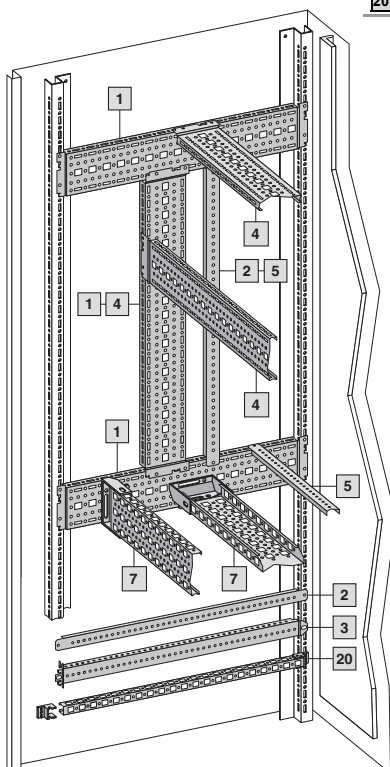
¹⁾ Only with TP console and desk unit

(cover or rear panel/base).

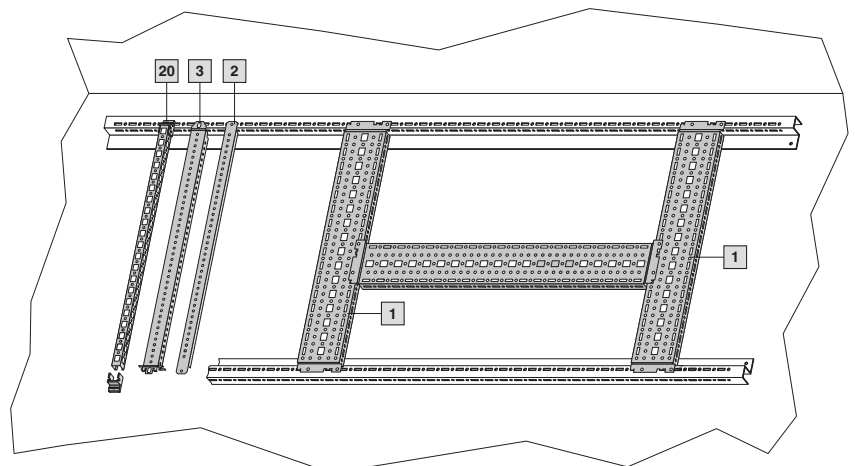
²⁾ Only with TP pedestal.

Installation accessories	Model No.					Page
	For depth mm					
For CM and TP pedestal	300	400	500			
1 TS punched section with mounting flange 17 x 73 mm for the outer level	8612.130	8612.140	8612.150			993
2 TS support strip for the outer level	8800.125	4694.000	4695.000			997
3 TS punched rail 18 x 38 mm	–	8612.240	8612.250			996
20 PS punched rail 23 x 23 mm with support bracket TS 8800.370	–	4169.000	4170.000			998
For CM and TP pedestal	For width mm					Page
	600	800	1000	1200	1600	
4 TS punched section with mounting flange 17 x 73 mm for the inner level	8612.060	8612.080	8612.000	8612.020	–	993
5 TS support strip for the inner level	8800.130	4579.000	–	–	–	997
7 PS punched section without mounting flange 23 x 73 mm with support bracket TS (alternatively with one or two punched rails 23 x 23 mm)	4376.000	4377.000	4382.000	4378.000	–	998
For TP console and desk unit (except cover for height 650 mm)	May be installed in depth or height					Page
1 TS punched section with mounting flange 17 x 73 mm for the outer level	8612.150					993
2 TS support strip for the outer level	4695.000					997
3 TS punched rail 18 x 38 mm	8612.250					996
20 PS punched rail 23 x 23 mm with support bracket TS 8800.370	4170.000					998
For TP console (only cover for height 650 mm)	May be installed in the height					Page
1 TS punched section with mounting flange 17 x 73 mm for the outer level	8612.140					993
2 TS support strip for the outer level	4694.000					997
3 TS punched rail 18 x 38 mm	8612.240					996
20 PS punched rail 23 x 23 mm with support bracket TS 8800.370	4169.000					998

Compact system enclosures CM/TP pedestal



TP console and desk unit (cover or rear panel/base)





TS punched section with mounting flange, 17 x 73 mm

Variable, with 5 rows of holes for universal skeleton structures or partial assembly. Simply locate into the TS punchings and secure.

Installation options:

- On the vertical TS enclosure section
 - On the outer mounting level, all-round, at the same height
 - On the inner mounting level, all-round, height-offset
- In CM via rail for interior installation
 - In the depth, for outer mounting level
 - In the width, for inner mounting level

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly screws.

German patent no. 196 47 802



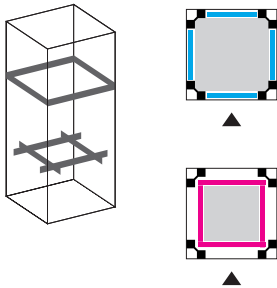
Also required:

For installation in CM, TP:
Rail for interior installation, see page 992.



Accessories:

Screws, see page 1011.
Cable tie for quick assembly SZ 2597.000, see page 1066.



For the outer mounting level¹⁾

For enclosure width/depth mm	Packs of	Model No. TS
300	4	8612.130
400	4	8612.140
500	4	8612.150
600	4	8612.160
800	4	8612.180
1000	4	8612.100
1200	4	8612.120

¹⁾ Note:

In conjunction with plug-in side panels, notched punched sections are required.

For the inner mounting level

For enclosure width/depth mm	Packs of	Model No. TS
300	4	8612.030
400	4	8612.040
500	4	8612.050
600	4	8612.060
800	4	8612.080
900	4	8612.090
1000	4	8612.000
1200	4	8612.020



Attachment TS

for TS punched section with mounting flange, 17 x 73 mm

Benefits:

- For attaching the TS punched section with mounting flange where installed equipment, such as mounting plates, blocks access to the screw fastening.
- May also be screw-fastened onto the punched section with mounting flange or enclosure frame and used as a support for contact hazard protection covers of master switch trim panels.

Packs of	Model No. TS
12	8612.010

Material:

Sheet steel

Surface finish:

Zinc-plated, passivated



Interior installation

Rail systems



TS punched section with mounting flange, 17 x 73 mm

notched version for DK-TS, FR(i)

For enclosures with plug-in side panels. Variable, with 5 rows of holes for universal skeleton structures or partial assembly. Simply locate into the TS punchings and secure.

Installation options:

- On the vertical TS enclosure section
 - On the outer mounting level, all-round, at the same height

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly screws.

German patent no. 196 47 802

For the outer mounting level

For enclosure width/depth mm	Packs of	Model No. TS
600	4	7828.064
800	4	7828.084
900	4	7828.094
1000	4	7828.104
1200	4	7828.124



Accessories:

Screws, see page 1011.
Cable tie for quick assembly SZ 2597.000, see page 1066.



TS punched section with mounting flange, 17 x 73 mm

with slot fastening for DK-TS, FR(i)

The slot fastening facilitates fully depth-variable attachment of installation components or system accessories. In this way, any required 482.6 mm (19") distance between levels may be implemented in the field of server integration. The sections are simply suspended from the inner TS mounting level and secured.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

1 set =
4 punched sections with mounting flange including mounting accessories for rack mounts and mounting angles.

For the inner mounting level

For enclosure depth mm	Packs of	Model No. TS
900	4	7828.095
1000	4	7828.105
1200	4	7828.125



TS punched section with mounting flange, 17 x 73 mm

depth-variable for mounting frames DK-TS, FR(i), TE

For designing flexible interior installation, and/or to accommodate additional built-in components. The punched sections with mounting flanges may be located in the enclosure depth between two mounting frames. An additional screw fastening secures the unit.

The depth variability of the rails facilitates flexible adaptation of their length to the existing attachment distance between the two 482.6 mm (19") mounting frames. An additional punched section centre piece may be slid flexibly along the rail in the depth and secured to slots. This facilitates flexible attachment at any point between the mounting frames in the enclosure depth.

Length mm	Packs of	Model No. TE
300 – 470 ^{1) 2)}	2	7000.676
530 – 700 ¹⁾	2	7000.678

¹⁾ Distance between 19" levels = length + 120 mm
²⁾ L < 420 mm, without centre piece

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

2 variable punched sections with mounting flanges, including one sliding centre part each, including assembly parts.



TS punched section with mounting flange 23 x 73 mm

The alternative to the TS punched section with mounting flange 17 x 73 mm, see page 993, with punchings for captive nuts/threaded blocks instead of the slotted holes top and bottom. Simply locate and secure.

Installation options:

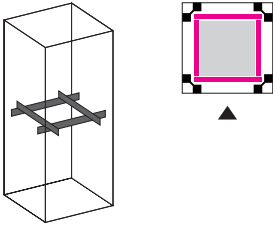
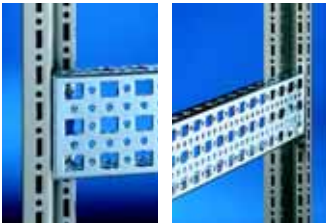
- On the vertical TS enclosure section

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly screws.



For the inner mounting level

For enclosure width/depth mm	Packs of	Model No. TS
500	4	8612.550
600	4	8612.560
800	4	8612.580
1000	4	8612.500
1200	4	8612.520



Accessories:

Screws, see page 1011.
Threaded blocks, captive nuts, see page 1010.



TS punched section without mounting flange 45 x 88 mm

Heavy top-mounted equipment mounted directly on the internal surfaces (e. g. roof) is supported. Mounted on the side or rear, the enclosure can then be screw-fastened securely to the machine. The twin profile with 11 rows of holes offers numerous additional opportunities for interior installation.

Installation options:

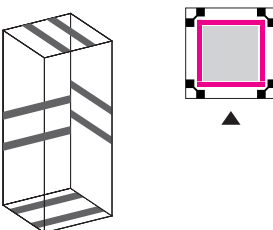
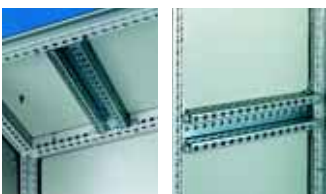
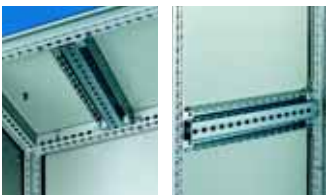
- On the vertical and horizontal TS enclosure section

Material:

Sheet steel, zinc-plated, passivated

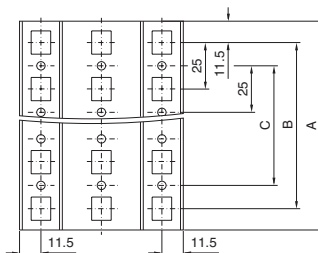
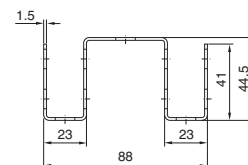
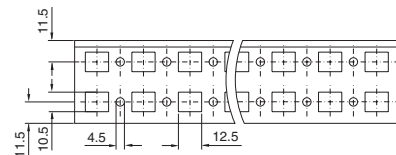
Supply includes:

Assembly parts.



For enclosure width/depth mm	Packs of	Model No. TS
500	2	8612.650
600	2	8612.660
800	2	8612.680

Side punchings



For enclosure width/depth mm	A	B	C
500	398	375	350
600	498	475	450
800	698	675	650

Interior installation

Rail systems



TS punched rail 25 x 38 mm

For heavy installations, with attachment holes.

Installation options:

- On the vertical TS enclosure section

With 9 mm round holes on a 25 mm pitch pattern on all sides, for mounting:

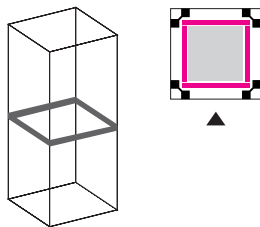
- Support rails, see page 1001
- System support rails, see page 1000
- C rails 30/15, see page 999
- Cable clamp rails (right angle section), see page 1061
- Own assemblies

Material:

Sheet steel 3.0 mm, zinc-plated, passivated

Supply includes:

Assembly screws.



For enclosure width/depth mm	Packs of	Model No. TS
400	2	8612.740
500	2	8612.750
600	2	8612.760
800	2	8612.780



Also required:

Snap-on nut M8, TS 8800.808, see page 1005.

Note:

In conjunction with the snap-on nut, particularly well-suited for dynamic connections.



TS punched rail 18 x 38 mm

Simply locate and secure with a screw. The location system makes assembly and dismantling easier. It only needs to be secured on one side, but may be secured on both sides if required.

Installation options:

- On the vertical TS enclosure section
 - On the outer mounting level
- On the horizontal TS enclosure section

Material:

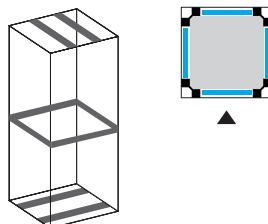
Sheet steel, zinc-plated, passivated

Supply includes:

Assembly screws.

Note:

In enclosures with a mounting plate, 2 punched rails are already included with the supply.



For enclosure width/depth mm	Packs of	Model No. TS
400	4	8612.240
500	4	8612.250
600	4	8612.260
800	4	8612.280

German patent no. 197 37 673

European patent no. 0 940 067

with validity for FR, GB, IT, SE

US patent no. 6,145,943

Chinese patent no. ZL 971 995 32.X

Australian patent no. 725 979



Accessories:

Screws, see page 1011.
Cable tie for quick assembly SZ 2597.000, see page 1066.
Cable clamps, see page 1064.



TS support strips

Installation options:

- On the vertical and horizontal TS enclosure section
 - On the outer mounting level, all-round, at the same height
 - On the inner mounting level, all-round, height-offset
- On the tubular door frame TS, ES
- On the perforated door strip CM, TP
- On the ES system punchings, in the enclosure depth

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly screws.

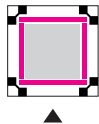
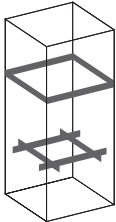
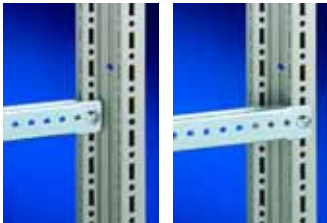
For the outer mounting level

For enclosure width/depth mm	Length mm	Packs of	Model No. TS
300	240	20	8800.125
400	340	20	4694.000
500	440	20	4695.000
600	540	20	4696.000
800	740	20	4697.000



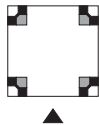
Accessories:

Screws, see page 1011.
Cable tie for quick assembly SZ 2597.000, see page 1066.



For the inner mounting level and for mounting on doors

For enclosure width/depth mm	For door width mm	Length mm	Packs of	Model No. TS
–	400	290	20	4594.000
400	500	390	20	4309.000
500	600	490	20	4596.000
600	–	590	20	8800.130
–	800	690	20	4598.000
800	900	790	20	4579.000
–	1000	890	20	4599.000



TS assembly block

Installation in the vertical TS enclosure sections for mounting PS-compatible individual components.

Material:

Die-cast zinc

Supply includes:

Assembly screws.

Packs of	Model No. TS
4	8800.310



Possible alternative:

Snap-on nut, see page 1005.



Adaptor rail

for PS compatibility

Installation in the vertical TS enclosure sections (across the entire enclosure height or in sub-sections) to create compatibility with:

- PS punched rail, 23 x 23 mm
- PS punched section without mounting flange, 23 x 73 mm
- PS punched section with mounting flange, 23 x 73 mm

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly screws.

For enclosure height mm	Packs of	Model No. TS
1800	4	8800.380
2000	4	8800.300
2200	4	8800.320



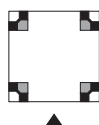
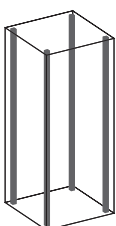
Accessories:

Screws, see page 1011.



Possible alternative:

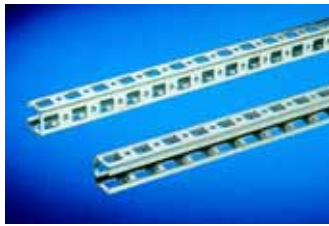
Snap-on nut, see page 1005.



German patent no. 19 647 781
European patent no. 0 939 990
with validity for FR, GB, IT, SE
US patent no. 6,206,494
Australian patent no. 727 880
Chinese patent no. ZL 971 997 31.4

Interior installation

Rail systems



PS punched rails 23 x 23 mm

for TS, ES

Installation options:

- On the vertical enclosure section
 - Directly via support brackets TS
 - Via adaptor rail for PS compatibility in conjunction with angle brackets, mounting brackets or support brackets PS
- On the horizontal enclosure section
 - Directly via angle brackets, mounting brackets or support brackets PS

Material:

Sheet steel, zinc-plated, passivated



Length mm	For WHD mm	Packs of	Model No. PS
295	400	12	4169.000
395	500	12	4170.000
495	600	12	4171.000
695	800	12	4172.000
895	1000	12	4173.000
1095	1200	6	4174.000
1295	1400	6	4393.000
1495	1600	6	4175.000
1695	1800	6	4176.000
1895	2000	6	4177.000
2095	2200	6	4178.000



Also required:

U nuts,
see page 1010.
Mounting brackets TS/PS,
see page 1006
or
angle brackets, support brackets TS/PS,
see page 1007.



Accessories:

Cable attachment,
see page 1066.
Screws,
see page 1011.
Cable tie for quick assembly SZ 2597.000,
see page 1066.



PS punched section without mounting flange 23 x 73 mm

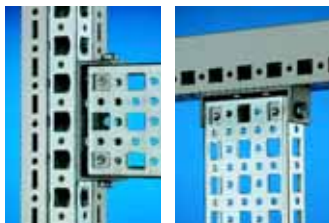
for TS, ES

Installation options:

- On the vertical enclosure section
 - Directly via support brackets TS
 - Via adaptor rail for PS compatibility in conjunction with support brackets PS
- On the horizontal enclosure section
 - Directly via support brackets PS

Material:

Sheet steel, zinc-plated, passivated



Length mm	For WHD mm	Packs of	Model No. PS
295	400	4	4374.000
395	500	4	4375.000
495	600	4	4376.000
695	800	4	4377.000
895	1000	4	4382.000
1095	1200	4	4378.000
1695	1800	4	4379.000
1895	2000	4	4380.000
2095	2200	4	4381.000



Also required:

Support brackets PS/TS,
see page 1007.



Accessories:

Screws,
see page 1011.
Cable tie for quick assembly SZ 2597.000,
see page 1066.
U nuts,
see page 1010.



PS punched section with mounting flange 23 x 73 mm

for TS, ES

Variable, with 5 rows of holes for universal skeleton structures or partial assembly. Simply locate into the system punchings and secure.

Installation options:

- On the vertical TS enclosure section – Via adaptor rail for PS compatibility
- On the horizontal TS enclosure section
- On the ES system punchings, in the enclosure depth

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly screws.



Installation in enclosure width/depth TS mm	Packs of	Model No. PS
400	4	8800.640
500	4	8800.650
600	4	4364.000
800	4	4365.000
1000	4	4373.000
1200	4	4367.000

Installation in enclosure depth ES, AP universal console, CS modular enclosures mm	Packs of	Model No. PS
400	4	4369.000
500	4	4370.000
600	4	4371.000
800	4	4372.000



Also required:

Adaptor rail for PS compatibility (when mounting on the vertical enclosure section), see page 997.



C rails 30/15

to EN 60 715 for TS, ES

Installation options:

- On the vertical TS enclosure section – Via snap-on nut TS 8800.808 (Fig. left) – Via adaptor rail for PS compatibility
- On the horizontal TS enclosure section (Fig. right)
- On the ES system punchings

Material:

Sheet steel, zinc-plated, passivated



For enclosure width/depth mm	Length mm	Packs of	Model No. PS
500	455	6	4943.000
600	555	6	4944.000
800	755	6	4945.000
1000	955	6	4946.000
1200	1155	6	4947.000



Accessories:

Cable clamps, see page 1064.
Support bracket or spacer, see page 1008.
Quick-assembly block, see page 1008.
Snap-on nut M8, TS 8800.808, see page 1005.
Adaptor rail, see page 997.

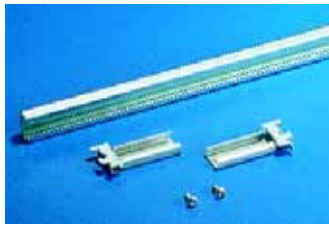


Possible alternative:

Rail for EMC shielding bracket and strain relief, see page 1031.

Interior installation

Rail systems



C rails

for DK-TS, CR Toptec

For direct mounting on the vertical enclosure section.

Thanks to the universally designed attachment piece, the C rails may optionally be attached to the inner or outer level of the TS 8 frame.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.

For enclosure width/depth mm	Length mm	Packs of	Model No. DK
400	298	4	7828.040
500	398	4	7828.050
600	498	4	7828.060
800	698	4	7828.080
900	798	4	7828.090
1000	898	4	7828.100
1200	1098	4	7828.120



Accessories:

Cable clamps, see page 1064.



C rails

for DK-TS

Installation options:

- On the horizontal enclosure sections
- On the vertical TS enclosure section via adaptor rail for PS compatibility

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.



For enclosure width/depth mm	Length mm	Packs of	Model No. DK
400	284	6	7091.000
500	384	6	7092.000
600	484	6	7095.000
800	684	6	7096.000
1000	894	6	7100.000
1200	1094	6	7102.000



Also required:

Adaptor rail for PS compatibility (when mounting on the vertical enclosure section), see page 997.



Accessories:

Cable clamps, see page 1064.



System support rails

For heavy installed equipment such as transformers. T-head screw and slot in the support rail for any mounting position.

Installation options:

- On the vertical TS enclosure section
 - Via snap-on nut TS 8800.808 (Fig. left)
 - Via adaptor rail for PS compatibility
 - Offset in the height, via TS punched rail 25 x 38 mm (Fig. right)
- On the horizontal TS enclosure section
 - In the width
 - In the depth (without mounting plate)
- On the ES system punchings, in the enclosure depth

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

2 system support rails (45 x 25 mm), 4 T-head screws M12 x 60 mm, and assembly parts.

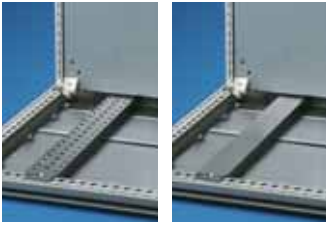


For enclosure width mm	Packs of	Model No. PS
600	2	4361.000
800	2	4362.000
1000	2	4347.000
1200	2	4363.000



Accessories:

Width divider e. g. for the installation of 2 system support rails (for 600 mm width) in 1200 mm wide enclosures, see page 909.
 Snap-on nut M8, TS 8800.808, see page 1005.
 Adaptor rail, see page 997.
 TS punched rail 25 x 38 mm, see page 996.



Support rails

for TS, ES

For heavy installations. Particularly suitable for the installation of base isolators.

Installation options:

- On the vertical TS enclosure section
 - Via snap-on nut TS 8800.808 (Fig. left)
 - Via adaptor rail for PS compatibility
 - Offset in the height, via TS punched rail 25 x 38 mm (Fig. right)
- On the horizontal TS enclosure section
 - In the width
 - In the depth
- On the ES system punchings, in the enclosure depth

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.



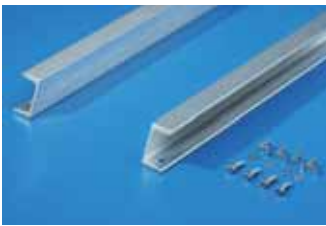
For enclosure width/depth mm	Packs of	Model No. PS	Model No. TS
		slotted	unslotted
400	4	4394.000	4394.500
500	4	4395.000	4395.500
600	4	4396.000	4396.500
800	4	4398.000	4398.500

+ Accessories:

Snap-on nut M8, TS 8800.808, see page 1005.

Adaptor rail, see page 997.

TS punched rail 25 x 38 mm, see page 996.



Support rail 65 x 42 mm

for TS, ES

Benefits:

- For heavy assemblies up to 5000 N per support rail.

Permissible static load:

10000 N per enclosure

Material:

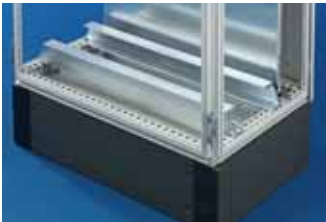
Steel

Surface finish:

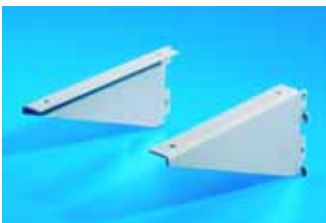
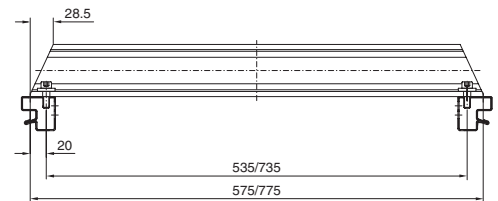
Zinc-plated, passivated

Supply includes:

Assembly parts.



For enclosure width mm	Packs of	Model No. TS
600	2	8612.960
800	2	8612.980



Bracket, locatable

for shelves

Simply locate into the vertical TS section. May be additionally secured with screws. Support surface for shelves: 200 mm.

Material:

Sheet steel

Colour:

RAL 7035



Packs of	Model No. IW
3 pairs	6902.690

Interior installation

Rail systems

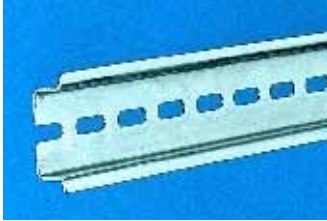


Support rails TS 35/15

to EN 60 715
for TS, ES

Mounting on the TS vertical section via snap-on nuts M8, TS 8800.808, see page 1005, assembly block see page 997 or adaptor rail, see page 997.

For enclosure width/depth mm	Support rails length mm	Packs of	Model No. PS
500	455	6	4933.000
600	555	6	4934.000
800	755	6	4935.000
1200	1155	6	4937.000



Support rails TS 35/7.5 and TS 35/15

to EN 60 715
for KL, AE

Length sized to the enclosure width

For enclosure width mm	Support rails length mm	Design	Packs of	Model No. SZ
150	137	TS 35/7.5	10	2314.000
200	187		10	2315.000
300	287		10	2316.000
400	387		10	2317.000
500	487	TS 35/15	10	2318.000
600	587		10	2319.000

Support rails

to EN 60 715

Fixed length 2 m

Design	Length	Packs of	Model No. SZ
TS 35/15	2 m	6	2313.150
TS 35/7.5	2 m	6	2313.750



Mounting clip

for support rails

For fast, secure attachment of:

- Cable trunking
- Mounting plates
- Mounting angles

on support rail TS 35/7.5 and TS 35/15 to EN 50 022.

Simply pre-assemble the mounting clip on the part to be installed, then snap into position on the support rail.

Packs of	Model No. SZ
30	2309.000

German patent no. 195 44 083
European patent no. 0 776 077
with validity for ES, FR, IT, SE



C rails

for EL

For infinite adjustment of the mounting angles in the depth.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

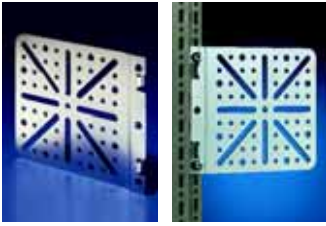
Assembly parts.

For centre part depth mm	Packs of	Model No. EL
216	4	2238.000
316	4	2239.000
416	4	2237.000



Accessories:

Cable clamps, see page 1064.



Mounting plates

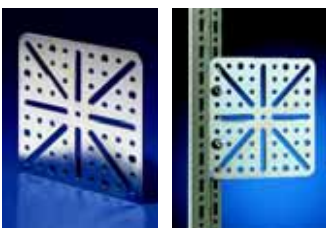
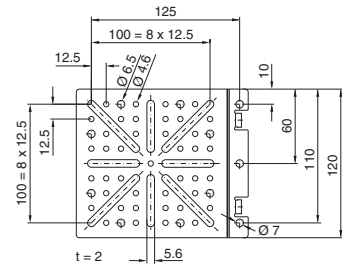
Locatable

- on
- the vertical TS enclosure section
 - TS punched section with mounting flange, 17 x 73 mm
 - at the rear on the TE 482.6 mm (19") mounting frame

Material:
Sheet steel, zinc-plated, passivated

Supply includes:
Assembly screws.

Packs of	Model No. TS
4	8612.400



Mounting plates

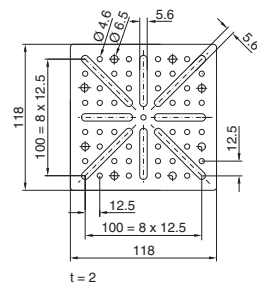
Screw-fastened, large

On all enclosures and mounting parts with system punchings on a 25 mm pitch pattern.

Material:
Sheet steel, zinc-plated, passivated

Supply includes:
Assembly screws.

Packs of	Model No. TS
4	8612.410



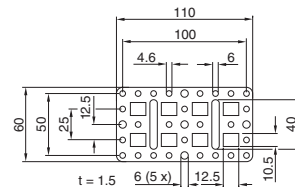
Mounting plates

Screw-fastened, small

Material:
Sheet steel, zinc-plated, passivated

Supply includes:
Assembly screws.

Packs of	Model No. PS
4	4532.000



Mounting bracket

Screw-fastened on all enclosures and mounting parts with system punchings on a 25 mm pitch pattern.

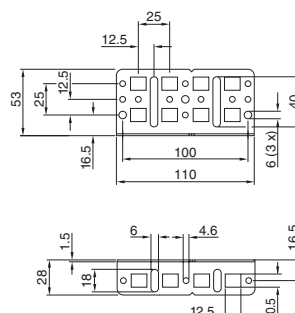
Material:
Sheet steel, zinc-plated, passivated

Supply includes:
Assembly screws.

Packs of	Model No. PS
4	4597.000

Accessories:

Screws, see page 1011.
Cable tie for quick assembly SZ 2597.000, see page 1066.



Interior installation

Rail systems



Mounting bracket for interior installation

For installing punched sections with mounting flanges and support strips in:

- CP horizontal/vertical Quickline Panel
- CP horizontal/vertical Comfort Panel from 74 mm installation depth

or for installing in:

- CP Optipanel from an installation depth of 100 mm
- CP VIP 6000 from an installation depth of 155 mm

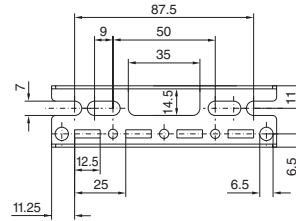
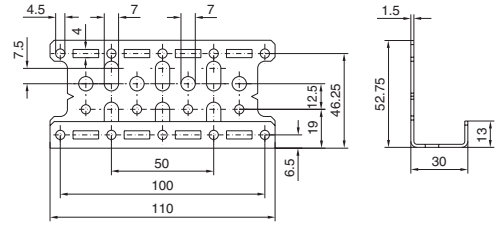
Material:

Sheet steel, zinc-plated, passivated

Supply includes:

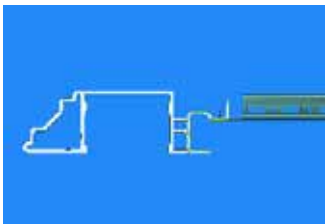
Assembly parts.

Packs of	Model No. CP
4	6205.100

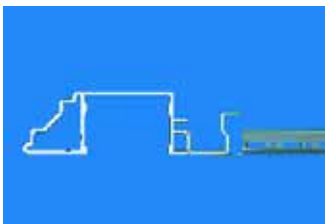


		Quickline panel		Comfort Panel	Page
		CP 6690.500	CP 6691.500	Front plate width 482.6 mm (19")	
Punched sections with mounting flanges	horizontal	8612.160	8612.160	8612.150	993
	vertical	-	8612.150		
Mounting bars	horizontal	4696.000	4696.000	4695.000	997
	vertical	4594.000	4695.000		

Rail systems



1



2

System adaptor for FR(i)

for FR(i)

By using the system adaptor, the principle of two TS 8 attachment levels within this enclosure system is easily achieved. This supports the integration of all rail systems which are attached to the outer enclosure level, and therefore offers a diverse choice of installation options. The inner attachment level may be emulated by simply rotating the system adaptor, and therefore creates the requirements for perfect cable management and completely flexible interior installation. Rail systems attached between the front and rear frame section must be 200 mm shorter than the external enclosure dimensions.

- 1 Installation position, outer level
- 2 Installation position, inner level

Packs of	Model No. FR(i)
8	7856.760

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.

B
7.6



Snap-on nut TS

Metric thread for vertical TS enclosure section. To install, insert into slot and clip into position. The snap-on nut is then secure. By tightening the screw, it is securely tightened against the section, and potential equalisation is automatically created.

Installation options:

- On the vertical TS enclosure section
 - with metric thread M6 or M8
 - the alternative to metal screws
 - particularly well-suited for dynamically loaded connections

Material:

Precision-cast stainless steel

Thread	Packs of	Model No. TS
M6	20	8800.806
M8	20	8800.808

German patent no. 101 49 599

Accessories:

Multi-tooth screw M6 x 12 or M8 x 12, see page 1011.



1 **2**



3 **4**



5

Accessories for interior installation

- 1** Support rails, see page 1001
- 2** Cable clamp rails, see page 1061
- 3** C rails 30/15, see page 999
- 4** System support rails, see page 1000
- 5** TS punched rail 25 x 38 mm, see page 996



Adaptor bracket TS

For external mounting of

- System lights
- Cable duct

 on the vertical TS enclosure section.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly screws.

Packs of	Model No. TS
6	8800.360



Interior installation

Assembly components



Mounting bracket TS

Offers variable mounting opportunities for the mounting angle 23 x 23 mm. E.g. for supporting external surfaces or creating an additional internal level.

Material:
Die-cast zinc

Supply includes:
24 screws 5.5 x 13 mm.

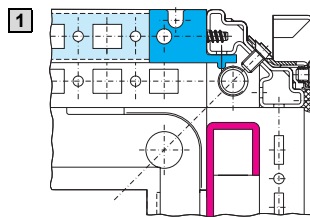
Packs of	Model No. TS
24	8800.370

+ Accessories:

U nuts (recommendation: M6), see page 1010.

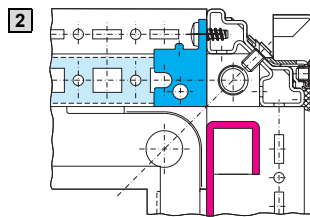
Installation options:

- On the vertical TS enclosure section
 - flush with the outer edge of the enclosure or
 - flush with the enclosure clearance width.



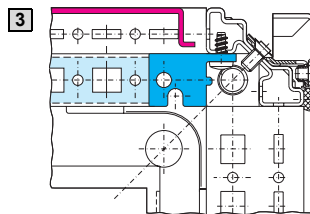
1 Support of the external surfaces with two mounting options:

- Without mounting plate (photo)
- With mounting plate (drawing)



Two installation options for the inner mounting level:

2 If there is no divider panel fitted.



3 With a divider panel fitted, and without or with a mounting plate in a set forward position.



Mounting bracket PS

For variable attachment of punched rails 23 x 23 mm.

Installation options:

- Optionally flush with:
 - Outer enclosure edge or
 - Enclosure clearance width
- On the vertical TS enclosure section via
 - Adaptor rail for PS compatibility, see page 997
- On the horizontal TS enclosure section
- On enclosures and rails with rectangular system punching 12.5 x 10.5 mm.

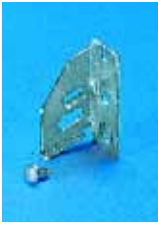
Material:
Die-cast zinc

Supply includes:
1 set =
1 mounting bracket,
1 screw M6 x 12 mm,
1 cage nut M6.

Packs of	Model No. PS
24 sets	4182.000

! Also required:

U nuts for punched rails (recommended: M6), see page 1010.
Multi-tooth screws M6 x 12 mm, see page 1011.



Angle bracket PS

For quick attachment of punched rails 23 x 23 mm.

Installation options:

- On the vertical TS enclosure section via
 - Adaptor rail for PS compatibility, see page 997
- On the horizontal TS enclosure section
- On enclosures and rails with rectangular system punching 12.5 x 10.5 mm.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

- 1 set =
 1 angle bracket, left,
 1 angle bracket, right,
 2 metal screws 5.5 x 13 mm.

Packs of	Model No. PS
12 sets	4181.000



Also required:

U nuts for punched rails (recommended: M6), see page 1010.
 Multi-tooth screws M6 x 12 mm, see page 1011.



Support bracket TS

For the attachment of punched sections without mounting flange 23 x 73 mm or punched rails 23 x 23 mm.

Installation options:

- On the vertical and horizontal TS enclosure section
 - on a 25 mm pitch pattern
 - in 2 mm increments.

Material:

Die-cast zinc

Supply includes:

- 1 set =
 1 support bracket,
 1 stay,
 3 metal screws 5.5 x 13 mm.

Packs of	Model No. TS
6 sets	8800.330

German patent no. 199 37 892



Also required:

U nuts for punched rails (recommended: M6), see page 1010.
 Multi-tooth screws M6 x 12 mm, see page 1011.



Support bracket PS

For the attachment of punched sections without mounting flange 23 x 73 mm or punched rails 23 x 23 mm.

Installation options:

- On the vertical TS enclosure section via
 - Snap-on nut TS 8800.806, see page 1005, or
 - Adaptor rail for PS compatibility, see page 997
- On the horizontal TS enclosure section
- On enclosures and rails with rectangular system punching 12.5 x 10.5 mm.

Material:

Die-cast zinc

Supply includes:

- 1 set =
 1 support bracket,
 2 countersunk screws,
 2 serrated lock washers.

Packs of	Model No. PS
24 sets	4183.000



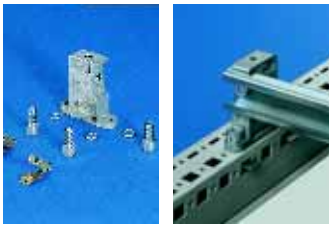
Also required:

U nuts for punched rails (recommended: M6), see page 1010.
 Multi-tooth screws M6 x 12 mm, see page 1011.
 Adaptor rail for PS compatibility (when mounting on the vertical enclosure section), see page 997.



Interior installation

Assembly components



Bracket/spacer

For fastening C rails, punched rails or cable clamp rails (angle section). On the sides, to accommodate square sections or tubes (Ø 20 mm).

Attachment points with M8 thread.

Installation options:

- On the vertical TS enclosure section via
 - Snap-on nut TS 8800.808, see page 1005, or
 - Adaptor rail for PS compatibility, see page 997
- On the horizontal TS enclosure section
- On enclosures and rails with rectangular system punching 12.5 x 10.5 mm

Material:

Die-cast zinc

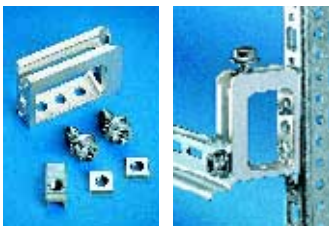
Supply includes:

- 1 set =
- 1 bracket/spacer,
 - 2 screws M8 x 16 mm,
 - 2 spring lock washers,
 - 2 cage nuts M8,
 - 2 serrated lock washers,
 - 2 metal screws.

Packs of	Model No. TS
6 sets	4199.000

Accessories:

Angle piece TS 4134.000, see page 1008.



Quick-assembly block

For a variety of installation options.

Installation options:

- On the vertical TS enclosure section via
 - Snap-on nut TS 8800.808, see page 1005, or
 - Adaptor rail for PS compatibility, see page 997
- On the horizontal TS enclosure section
- On enclosures and rails with rectangular system punching 12.5 x 10.5 mm

Material:

Die-cast zinc

Supply includes:

- 12 quick-assembly blocks,
- 12 threaded blocks M8,
- 24 screws M8 x 12 mm,
- 24 square nuts M8.

Packs of	Model No. TS
12	4133.000

German patent no. 42 33 205



Angle piece

For assembling punched rails and mounting surfaces with a 45° incline.

Installation options:

- On the vertical TS enclosure section via
 - Snap-on nut TS 8800.806, see page 1005, or
 - Adaptor rail for PS compatibility, see page 997
- On the horizontal TS enclosure section
- On enclosures and rails with rectangular system punching 12.5 x 10.5 mm

Material:

Angle pieces: Die-cast zinc
Insulating pieces: Plastic

Supply includes:

- 1 set =
- 1 angle piece,
 - 1 insulating piece,
 - 1 insulating screw and
 - 2 assembly screws,
 - 1 threaded block M6.

Packs of	Model No. TS
12 sets	4134.000



Universal bracket

For installing

- Enclosure lights in
 - Compact enclosures AE
 - Console systems AP
- Door-operated switches in
 - Compact enclosures AE
 - TopConsole system TP
 - Console systems AP
- Cable conduit holders SZ 2593.000 and SZ 2591.000 in
 - Compact enclosures AE
 - Console systems AP
- Support rails for terminals in
 - Operating housings and command panel housings with door.

Mounting screws are concealed when the door is closed. Existing holes for mounting blocks or hinges may be used with AE.

Material:

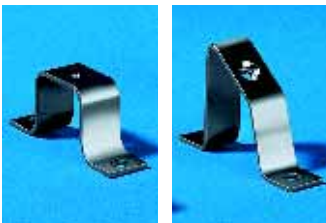
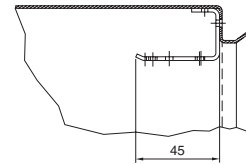
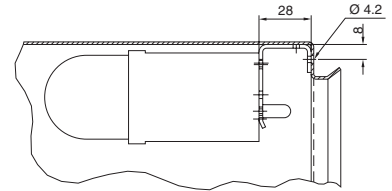
Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.



Packs of	Model No. SZ
6	2373.000

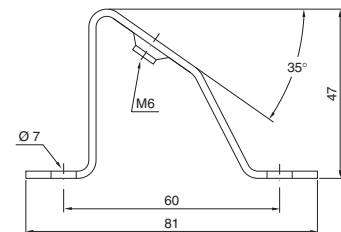
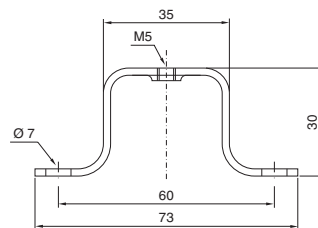


Rail mounting bracket

For individual rail mounting.

Material:

Sheet steel, zinc-plated, passivated



Rail mounting bracket	Packs of	Model No. SZ
Flat	20	2365.000
Inclined	20	2366.000



Mounting block

for AE

As an accessory for additional interior installation, e.g. mounting of cable ties, PS punched rails, top hat rails and C rails (e.g. for a second pair of mounting angles).

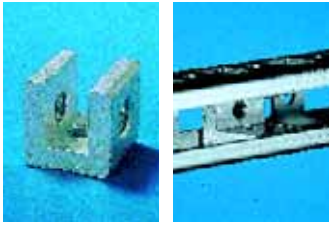
Supply includes:

Assembly parts.

Packs of	Model No. SZ
20	2574.000

Interior installation

Assembly components



U nuts

For

- Punched rail 23 x 23 mm
- Punched section without mounting flange, 23 x 73 mm
- Punched section without mounting flange, 45 x 88 mm
- Punched section with mounting flange, 23 x 73 mm

For mounting punched rails and punched sections without mounting flanges on angle brackets, mounting brackets and support brackets, we recommend U nuts with M6 thread (PS 4179.000).

Thread	Packs of	Model No. PS
M4	20	4119.000
M5	20	4157.000
M6	20	4179.000
M8	20	4180.000



Accessories:

Multi-tooth screws M6 x 12 mm, (for PS 4179.000), see page 1011.

Cage nuts/threaded blocks

Installation options:

On enclosures and rails with rectangular system punching 12.5 x 10.5 mm, such as:

- TS enclosure section
 - vertical, via adaptor rail for PS compatibility
 - horizontal, direct
- ES enclosure body, all-round
- Punched rail 23 x 23 mm
- Punched section without mounting flange, 23 x 73 mm
- Punched section without mounting flange, 45 x 88 mm
- Punched section with mounting flange, 23 x 73 mm



Possible alternative:

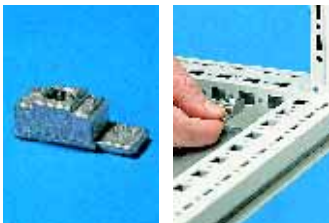
On the vertical TS enclosure section TS snap-on nuts, see page 1005.



Cage nuts

The compression spring, designed as an insertion aid, ensures reliable mechanical and electrical connection in the system punchings.

Thread	Packs of	Model No. TS
M6	50	4164.000
M8	50	4165.000



Threaded blocks

With snap-off insertion aid, die-cast zinc.

Thread	Packs of	Model No. TS
M6	50	4162.000
M8	50	4163.000



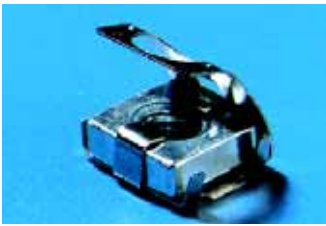
Cage nuts

The nuts are inserted from the same side as screw-fastening takes place. Consequently, attachment points in the same height or width may also be used around corners.

The spring cage also ensures electrical connection in the system punchings.

Thread	Packs of	Model No. TS
M6	50	8800.340
M8	50	8800.350

German patent no. 198 60 434



Spring nut M5

For

- Comfort Panel from an installation depth of 74 mm
- Optipanel from an installation depth of 100 mm
- VIP 6000 from an installation depth of 185 mm
- Compact Panel

The spring ensures reliable protection against unintentional displacement.

Further interior installation, e.g. with mounting bracket PS 4597.000 (see page 1003) or mounting bracket CP 6205.100 (see page 1004).

Material:

Sheet steel, zinc-plated, passivated

Packs of	Model No. CP
50	6108.000



Threaded inserts M6

For KS

For securing installed equipment to the moulded bosses in the door and in the enclosure rear panel.

Screw length available for insertion: 8 mm.

Packs of	Model No. KS
20	1482.000



Multi-tooth screws

M6 x 12 to fit:

- Snap-on nuts (TS 8800.806)
- U nuts for punched rails (PS 4179.000)
- Cage nuts (PS 4164.000)
- Threaded blocks (TS 4162.000)

M6 x 12 to fit:

- Snap-on nuts (TS 8800.808)

Multi-tooth drive for optimum transmission of torques, an extended tool life and increased safety and reliability when tightening and loosening screw connections.



Metal multi-tooth screws

For the round holes 4.5 mm diameter in the enclosure section, punched rails and punched sections without mounting flanges.



Self-tapping screws

For the round holes 4.5 mm diameter in the enclosure section, punched rails and punched sections without mounting flanges.



Self-tapping screws

Mark, drill and tighten in a single operation using electric or pneumatic tools.

For metal thickness: 0.8 – 3 mm

Length: 16 mm

Usable length: 9.5 mm

Width across flats: 8 mm

Type of screw	Dimensions mm	Packs of	Model No. SZ
Multi-tooth screws	M6 x 12	300	2504.500
	M8 x 12	300	2504.800
Metal multi-tooth screws	5.5 x 13	300	2486.500
Multi-tooth screws for stainless steel	5 x 13	300	2486.300
Self-tapping screws:			
• Hex screws	M5 x 10	500	2504.000
	M5 x 12	500	2488.000
• Posidrive raised countersunk screws	M5 x 12	500	2489.000
• Multi-tooth pan-head screws	M5 x 12	500	2489.500
Self-tapping screws	ST 4.8 x 16	300	2487.000

Interior installation

Assembly components

TS adaptor for wiring systems



Adaptor rail for the Lütze LSC wiring system.

Supply includes:

1 set =
6 adaptor rails,
24 spring lock washers,
24 metal screws 5.5 x 13 mm.

Note:

Mounting parts for the LCS wiring system not included with the supply.

For enclosure depth mm	Packs of	Model No. TS
400	1 set	8800.140
500		8800.150
600		8800.160
800		8800.180



Installation kit for the Moeller MR 25 wiring system.

Supply includes:

1 set =
2 baying clamps,
4 mounting rails,
assembly parts.

For enclosure depth mm	Packs of	Model No. TS
400	1 set	8800.240
500		8800.250



Kit

for separate frame TS

Every TS 8 frame is easily converted to a rack suitable for dismantling. To this end, the frame sections in the roof and base frame are separated, optionally in the width or depth. The four connection components are inserted into the frame section and screw-fastened. The external dimensions of the frame remain unchanged.

Supply includes:

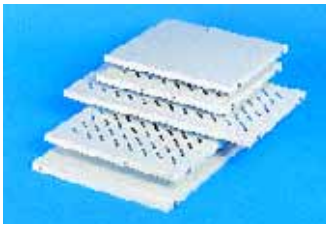
Assembly parts.

Note:

The maximum achievable IP protection category is restricted by separation of the frame.

Packs of	Model No. DK
4	7829.400





Component shelf for frame attachment

Enclosure width 600 mm on the enclosure frame or between two 482.6 mm (19") mounting angles

Maximum depth of component shelves with enclosure frame attachment = enclosure depth minus 100 mm.

Technical specifications:

Mounting bolts or mounting rails may be installed on a 25 mm pitch pattern in the enclosure depth. Mounting hole for handles provided.

Load capacity:

50 kg/100 kg surface load, static

Material:

Sheet steel

Colour:

RAL 7035

Supply includes:

Assembly parts.



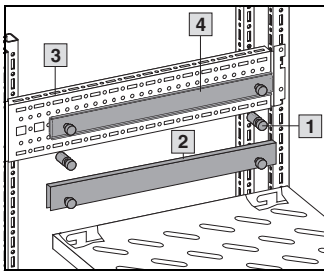
Also required:

TS punched section with mounting flange, 17 x 73 mm, as installation kit for component shelves,

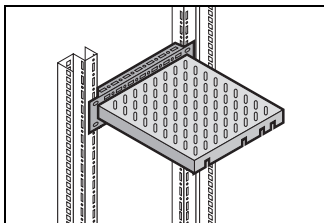
see page 1023.

For FR(i) plus system adaptor,

see page 1004.



Mounting **A**



Mounting **B**

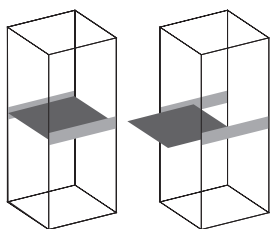
- 1** Fastening bolts
- 2** Mounting rails
- 3** Installation kit
- 4** Telescopic slides

Load capacity kg	50				100			
Component shelf depth mm	400	500	600	700	400	500	600	700
Component shelf height mm	29				45			
Model No. DK, slotted	7164.035	7165.035	7166.035	7166.735	7464.035	7465.035	7466.035	7466.735
Model No. DK, unslotted	7264.035	7265.035	7266.035	-	-	-	-	-

Mounting on a 600 mm wide enclosure frame, installation **A**, for TS, FR(i)



Also required:



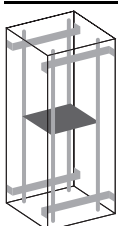
For TS	600	8612.060
TS punched sections with mounting flanges 17 x 73 mm as installation kit for enclosure depth mm	800	8612.080
	900	8612.090
	1000	8612.000
For FR(i)	System adaptor	7856.760
System adaptor and TS punched sections with mounting flanges 17 x 73 mm as installation kit for enclosure depth mm	600	8612.140
	800	8612.160
	1000	8612.180
	1200	8612.100



Accessories:

Telescopic slides, see page 1025	7061.000	7081.000	7161.000	7161.700	7064.000	7065.000	7066.000	7066.700
Handles for component shelves, see page 1025	3636.010							

Mounting on the 482.6 mm (19") mounting frame¹⁾, installation **B**, for TE, TS, FR(i)



Distance between 482.6 mm (19") levels, minimal	495	595	695	895	495	595	695	895
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Also required:

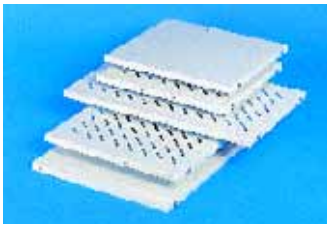
TS punched section with mounting flange 17 x 73 mm as installation kit in the enclosure depth between the 482.6 mm (19") mounting frames	8612.040	8612.050	8612.060	8612.080	8612.040	8612.050	8612.060	8612.080
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¹⁾ Note:

Not suitable for combination with telescopic slides.

Interior installation

Component shelves for frame attachment



Component shelf for frame attachment

Enclosure width 800 mm for TS, FR(i)

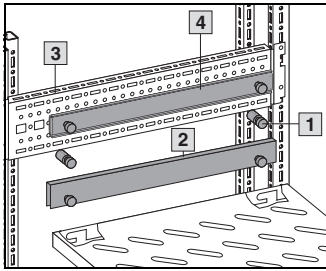
For installation in enclosures **without** 482.6 mm (19") accommodation.

Maximum depth of component shelves with enclosure frame attachment = enclosure depth minus 100 mm.



Also required:

TS punched section with mounting flange, 17 x 73 mm, as installation kit for component shelves, see page 1023.
For FR(i) plus system adaptor, see page 1004.



Technical specifications:

Mounting bolts or mounting rails may be installed on a 25 mm pitch pattern in the enclosure depth. Mounting hole for handles provided.

Load capacity:

50 kg/100 kg surface load, static

Material:

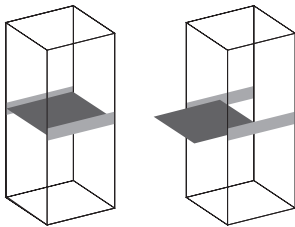
Sheet steel

Colour:

RAL 7035

Supply includes:

Assembly parts.



- 1** Fastening bolts
- 2** Mounting rails
- 3** Installation kit
- 4** Telescopic slides

Load capacity kg	50				100			
Component shelf depth mm	400	500	600	700	400	500	600	700
Component shelf height mm	29				45			
Model No. DK, slotted	7184.035	7185.035	7186.035	7186.735	7484.035	7485.035	7486.035	7486.735



Also required:

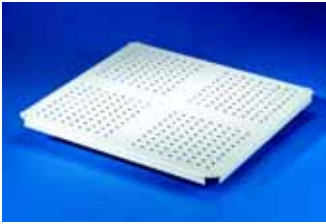
For TS	600	8612.060
TS punched sections with mounting flanges 17 x 73 mm as installation kit for enclosure depth mm	800	8612.080
	900	8612.090
	1000	8612.000
For FR(i)	System adaptor	7856.760
System adaptor and TS punched sections with mounting flanges 17 x 73 mm as installation kit for enclosure depth mm	600	8612.140
	800	8612.160
	1000	8612.180
	1200	8612.100



Accessories:

Telescopic slides, see page 1025	7061.000	7081.000	7161.000	7161.700	7064.000	7065.000	7066.000	7066.700
Handles for component shelves, see page 1025	3636.010							

Component shelves for frame attachment



Component shelf, static installation

for TS

Locate the mounting pieces in the frame and attach the component shelf. Attachment in the TS enclosure section offers the greatest possible support surface.

Dimensions:

Height: 25 mm
Width: Enclosure width minus 44 mm
Depth: Enclosure depth minus 44 mm

Load capacity:

75 kg surface load, static

Material:

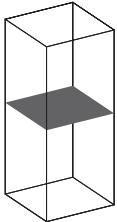
Sheet steel

Colour:

RAL 7035

Supply includes:

Assembly parts.

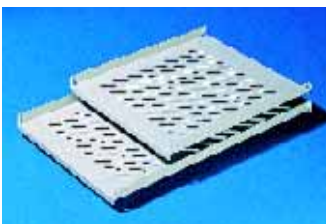


For enclosures		Model No. DK
Width mm	Depth mm	
600	600	7828.660
600	800	7828.680
600	900	7828.690¹⁾
600	1000	7828.600¹⁾
800	600	7828.680
800	800	7828.880
800	900	7828.890
800	1000	7828.800

¹⁾ Delivery times available on request.

Note:

Combined use with vertically divided doors is not possible.
Not suitable for combination with telescopic slides.



Component shelf, static installation

for PC-ES

For direct mounting on the enclosure frame. Simply locate into the 4 screws, tighten, and voilà!

Load capacity:

40 kg surface load, static

Material:

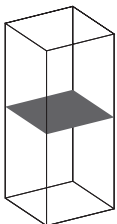
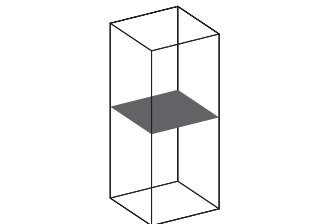
Sheet steel

Colour:

RAL 7035

Supply includes:

Assembly parts.

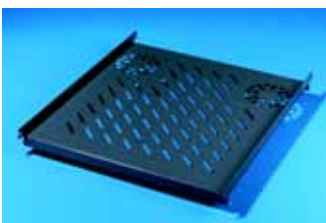


For enclosures		Support area		Model No. PC
Width mm	Depth mm	Width mm	Depth mm	
600	650	510	555	4619.660
600	850	510	755	4619.680



Accessories:

Fastening bolts for slotted component shelves DK 7115.000, see page 1026.



Component shelf, static installation

for TS, PC-TS, IW prepared for fan expansion kit

For direct mounting on the vertical TS enclosure section. Simply located into 4 pre-fitted screws and secure.

Load capacity:

40 kg surface load, static

Material:

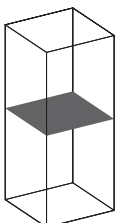
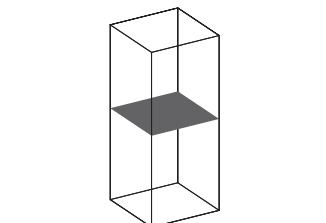
Sheet steel

Colour:

RAL 7015

Supply includes:

Assembly parts.



For enclosures		Support area		Model No. PC
Width mm	Depth mm	Width mm	Depth mm	
600	600	507	550	8800.900
600	800	507	750	8800.910

¹⁾ For enclosures without a mounting plate.

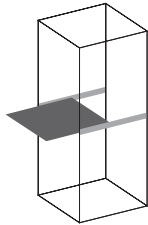
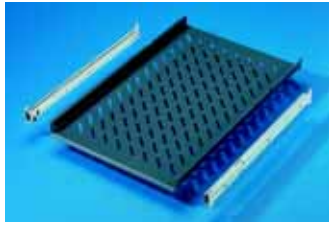


Accessories:

Fan expansion kit DK 7980.000, see page 703.

Interior installation

Component shelves for frame attachment



Component shelf, pull-out

for TS, PC-TS, IW

For direct mounting on the vertical TS enclosure section.

Load capacity:

40 kg surface load, static

Material:

Sheet steel

Colour:

RAL 7015

Supply includes:

2 telescopic slides.

For enclosures ¹⁾		Support area		Model No. IW
Width mm	Depth mm	Width mm	Depth mm	
600	600	465	545	6902.960 ²⁾
600	800	465	745	6902.980

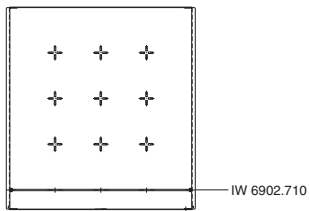
¹⁾ For enclosures without a mounting plate.

²⁾ May also be installed in 800 mm deep enclosures based on TS (pull-out rear attachment).



Also required:

When installing more than one pull-out component shelf/drawer tray, we recommend that for reasons of work safety to DIN EN 349 a drawer extension lock should be used, see page 1026.



Drawer tray

pull-out

For enclosures with TS frame construction in series IW, PC-TS.

Width 600 mm and depth 600 – 800 mm.

Individual sub-division is possible via the use of cross members.

Tray height: 83 mm

Load capacity:

40 kg surface load, static

Material:

Sheet steel

Colour:

RAL 7035

Supply includes:

2 telescopic slides.

Note:

Suitable for installation in all enclosures, without mounting plate, with W x D 600 x 600/800 mm based on TS (rear attachment of telescopic slides extendible).

When sub-dividing the drawer tray, one cross member is always needed for the entire width (IW 6902.710).

Packs of	Model No. IW
1	6902.700



Also required:

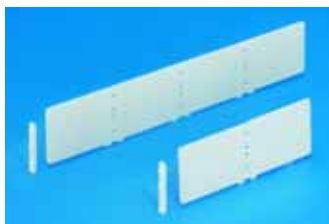
When installing more than one pull-out component shelf/drawer tray, we recommend that for reasons of work safety to DIN EN 349 a drawer extension lock should be used, see page 1026.



Accessories:

Cross member, see page 1016.

Component shelves for frame attachment



Cross members

for drawer tray

For individual sub-division.

Material:

Aluminium, 3 mm

Colour:

RAL 7035

Supply includes:

Plastic holder.

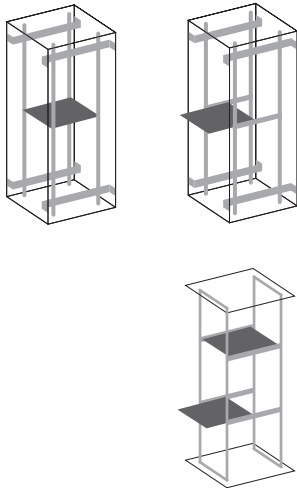
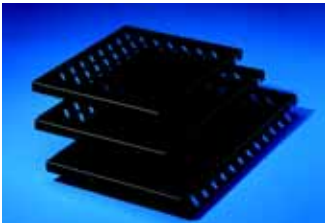
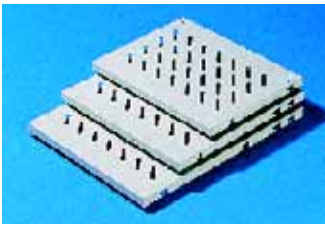
For sub-division in	Packs of	Model No. IW
the full width	4	6902.710
half the width	6	6902.720

Note:

When sub-dividing the drawer tray, one cross member is always needed for the entire width (IW 6902.710).

B
7.6

Component shelves for attachment to the 482.6 mm (19") frame



Component shelf, 482.6 mm (19") installation

Enclosures with two 482.6 mm (19") mounting levels

for TE, TS, FR(i), 19" system punchings

Depending on their depth, the component shelves have several attachment points, so the distance between the 482.6 mm (19") mounting angles is variable within certain limits. Each component shelf secured in this way can be retrospectively upgraded to full withdrawal using telescopic slides. For this purpose, the telescopic slides are screw-fastened in place of the spacers.

Load capacity:
50 kg surface load, static

Material:
Sheet steel

Colour:
RAL 7035/RAL 9005

Supply includes:
Assembly parts.

Note:
For installation in one 482.6 mm (19") level:
In conjunction with 3 U side parts, mounting on only one 482.6 mm (19") level is possible. 30 kg surface load, static.

! Also required:

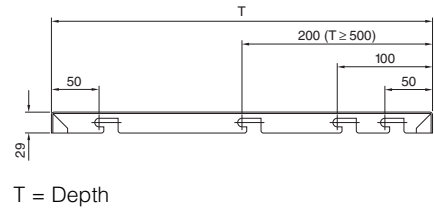
Adaptor for L-shaped mounting angles TS, see page 1023.
Installation kit, depth-variable, for installation on mounting frames and L-shaped mounting angles, see page 1023.

+ Accessories:

Telescopic slides, see page 1025.
Cable support, hinged, see page 1025.
Side parts 3 U, see page 1024.

⇌ Possible alternative:

Component shelf, heavy duty, for 482.6 mm (19") population, see page 1018 – 1019.



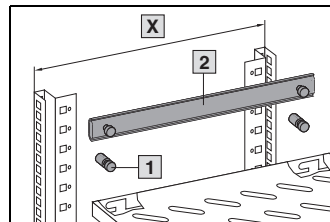
Component shelf width mm	409					Page
Component shelf depth mm	300	400	500	600	700	
Distance between levels (X)	298	348/398	348/448/498	448/548/598	548/648/698	
Model No. DK RAL 7035	7143.035	7144.035	7145.035	7145.635	7145.735	
Model No. DK RAL 9005	-	-	7145.005	7145.605	7145.705	

+ Accessories:

Telescopic slides for 50 kg	7051.000	7061.000	7081.000	7161.000	7161.700	1025
Handles for component shelf	3636.010	3636.010	3636.010	3636.010	3636.010	1025

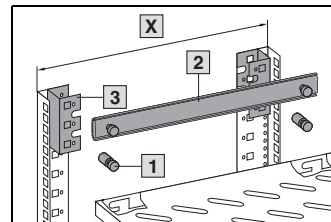
For TS: Note for installation in network enclosures based on TS, cranked mounting angle:

The component shelves are mounted on the sides of the 482.6 mm (19") cranked mounting angle with spacers on a U pitch pattern.



For TS: Note for installation in network enclosures based on TS, L-shaped mounting angle:

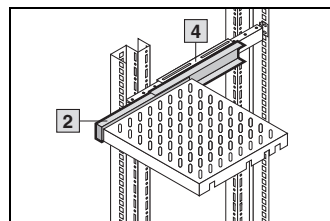
If L-shaped mounting angles are used, adaptor DK 7827.300 is required.



- 1** Spacers
- 2** Telescopic slides
- 3** Adaptor
- 4** Installation kit, depth-variable
- X** Distance between levels

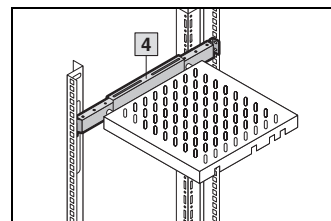
For TE, TS, FR(i), 19" system punchings: Note for installation between two mounting frames or L-shaped mounting angles:

May be mounted directly on the 482.6 mm (19") system punchings using the depth-variable installation kit.



For TS, FR(i): Note for installation between mounting angles and mounting frames:

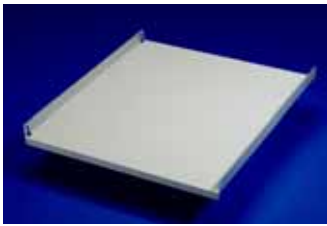
May be mounted directly on the 482.6 mm (19") system punchings using the depth-variable installation kit.



Interior installation

Component shelves for attachment to the 482.6 mm (19") frame

Component shelves for attachment to the 482.6 mm (19") frame



Component shelf, static installation

on the 482.6 mm (19") mounting angles for TE, TS, FR(i)

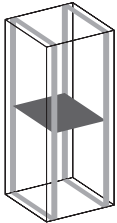
The component shelf is attached directly to the front and rear 482.6 mm (19") mounting angles.

Load capacity:
30 kg surface load, static

Material:
Sheet steel

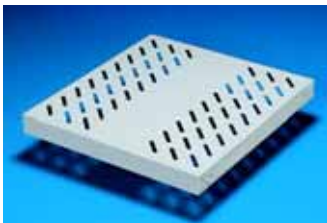
Colour:
RAL 7035

Supply includes:
Assembly parts.



Width mm	Height mm	Depth mm	Distance between 19" levels mm	Model No. DK
511	22	413	495	7000.620

Note:
Not suitable for combination with telescopic slides.



Component shelf, heavy duty

for network enclosures TS with cranked mounting angles

For static installation between two 482.6 mm (19") mounting levels.

The component shelf is located directly onto the cranked mounting angles.

Zinc-plated version:
Load capacity:
75 kg surface load, static

Material:
Sheet steel, zinc-plated, passivated

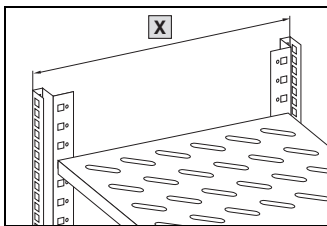
Supply includes:
Assembly parts.

Spray-finished version:
Load capacity:
100 kg surface load, static

Material:
Sheet steel

Colour:
RAL 7035

Supply includes:
Assembly parts.



Zinc-plated version:

Dimensions			Distance between levels (X) mm	Model No. DK
Width mm	Height mm	Depth mm		
452.5	20	478	498	7828.950
452.5	20	578	598	7828.960
452.5	20	678	698	7828.970

Spray-finished version:

Dimensions			Distance between levels (X) mm	Model No. DK
Width mm	Height mm	Depth mm		
453	44	470	498	7145.535

Note:
Not suitable for combination with telescopic slides.

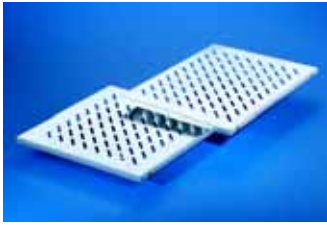
Possible alternative:

Component shelf, heavy duty, for 482.6 mm (19") population, may be combined with telescopic slides, see page 1019.

B

7.6

Component shelves for attachment to the 482.6 mm (19") frame/system punchings



Component shelf, heavy duty

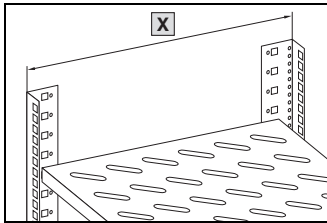
for network enclosures TS with L-shaped mounting angles

For static installation between two 482.6 mm (19") mounting levels. The component shelf is located directly onto the L-shaped mounting angles.

Load capacity:
75 kg surface load, static

Material:
Sheet steel, zinc-plated, passivated

Supply includes:
Assembly parts.

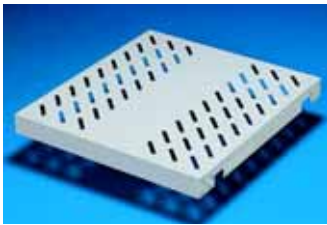


Dimensions			Distance between levels (X) mm	Model No. DK
Width mm	Height mm	Depth mm		
507.5	20	480	498	7828.951
507.5	20	580	598	7828.961
507.5	20	680	698	7828.971

Note:
Not suitable for combination with telescopic slides.

Possible alternative:

Component shelf, heavy duty, for 482.6 mm (19") population, may be combined with telescopic slides, see page 1019.



Component shelf, heavy duty

482.6 mm (19") for TE, TS, FR(i)

- L-shaped mounting angles
- Mounting frame 482.6 mm (19")

Load capacity:
100 kg surface load, static

Material:
Sheet steel

Colour:
RAL 7035/RAL 9005

Supply includes:
Assembly parts.



Dimensions			Model No. DK	
Width mm	Height mm	Depth mm	RAL 7035	RAL 9005
409	45	500	7063.895	7063.835¹⁾
409	45	700	7063.897	7063.837

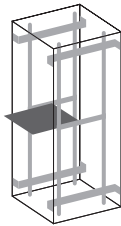
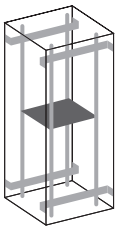
¹⁾ Delivery times available on request.

Also required:

Installation kit, depth-variable DK 7063.890, see page 1023.

Accessories:

Telescopic slides (100 kg) for 482.6 mm (19") component shelf, see page 1025.



Component shelf 2 U

482.6 mm (19") for TE, TS, FR(i), 19" system punchings

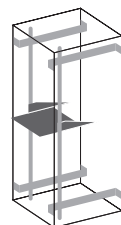
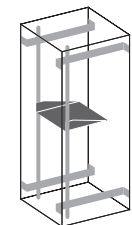
Suitable for installation in all enclosures with only one 482.6 mm (19") recess and all swing frames with flange mounting, 482.6 mm (19").

Load capacity:
25 kg surface load, static

Material:
Sheet steel

Colour:
RAL 7035

Supply includes:
Assembly parts.



Width mm	Depth mm	Model No. DK
390	300	7148.035

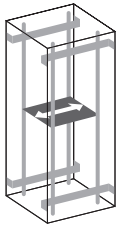
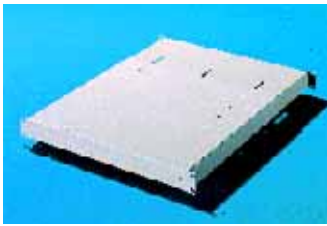
Accessories:

Telescopic slides for component shelf, see page 1025.
Handles, see page 1025.

Interior installation

Component shelves for attachment to the 482.6 mm (19") system punchings

Component shelves for attachment to the 482.6 mm (19") system punchings



Component shelf 1 U, depth-variable

482.6 mm (19") for TE, TS, FR(i), 19" system punchings

For mounting between the front and rear 482.6 mm (19") levels. The component shelf is infinitely depth-adjustable from 488 mm to 750 mm.

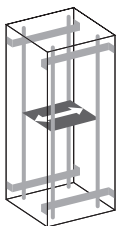
Load capacity:
50 kg surface load, static

Material:
Sheet steel

Colour:
RAL 7035

Distance between levels mm	Model No. VR
488 – 750	3861.580

Note:
Not suitable for combination with telescopic slides.



Component shelf 1/2 U, depth-variable

482.6 mm (19") for TE, TS, FR(i), 19" system punchings

This space-saving component shelf is screw-fastened to the front and rear 482.6 mm (19") mounting angles. It is infinitely depth-adjustable and may be fitted independently from the enclosure.

Load capacity:
50 kg surface load, static

Material:
Sheet steel

Colour:
RAL 7035

Distance between levels mm	Model No. DK
400 – 600	7063.710
600 – 900	7063.720

Note:
Not suitable for combination with telescopic slides.



Component shelf, complete set, pull-out

for TE

Tailored to the distance between levels in enclosures as per their supplied state of 495 mm, this complete set contains a vented component shelf, telescopic slides and a mounting kit for direct attachment. The mounting kit also offers depth-variable attachment within 200 mm with a 25 mm pitch pattern.

Load capacity:
50 kg, static

Material:
Base: Sheet steel, spray-finished in RAL 7035
Mounting kit/telescopic slides:
Zinc-plated, passivated

Supply includes:
1 component shelf, telescopic slides and mounting kit.

Base depth mm	Packs of	Model No. DK
500	1 set	7000.625

+ Accessories:

Handles for component shelf, see page 1025.

B
7.6

Component shelves for attachment to the 482.6 mm (19") system punchings



Component shelf 1 U, static installation

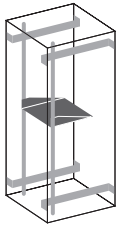
482.6 mm (19")/535 mm (metric) for TE, TS, FR(i), 19" system punchings

The ideal support surface for small active components such as modems or mini-hubs in 482.6 mm (19") or metric levels.

Load capacity:
10 kg surface load, static

Material:
Sheet steel

Colour:
RAL 7035



Component shelf depth mm	Model No. DK	
	482.6 mm (19")	Metric
140	7119.140	7119.155¹⁾

¹⁾ Delivery times available on request.

Note:
Not suitable for combination with telescopic slides.

! Also required:

Captive nuts, see page 1010.
Screws, see page 1011.



Component shelf 1 U, static installation

42 HP (1/2 19")

The ideal support surface for small active components such as modems or mini-hubs.

Material:
Sheet steel

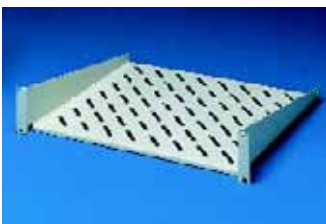
Colour:
RAL 7035

Note:
Not suitable for combination with telescopic slides.

Component shelf depth mm	Model No. DK
140	7502.600

! Also required:

Captive nuts, see page 1010.
Screws, see page 1011.



Component shelf 2 U, static installation

482.6 mm (19")/535 mm (metric) for 482.6 mm (19")/metric system punchings

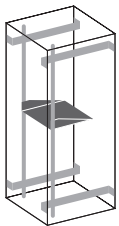
If only one 482.6 mm (19") or metric mounting level is available for mounting a component shelf, this variant offers a particularly cost-effective solution.

Load capacity:
25 kg surface load, static

Material:
Sheet steel

Colour:
RAL 7035

Note:
Not suitable for combination with telescopic slides.



Component shelf depth mm	Model No. DK	
	482.6 mm (19")	Metric
250	7119.250	7119.255
400	7119.400	7119.455

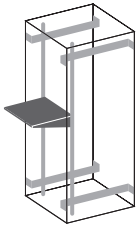
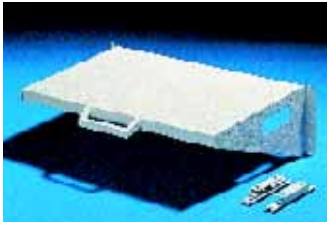
! Also required:

Captive nuts, see page 1010.
Screws, see page 1011.

Interior installation

Component shelves for attachment to the 482.6 mm (19") system punchings

Component shelves for attachment to the 482.6 mm (19") system punchings



Utility table

for location in the 482.6 mm (19") level for 482.6 mm (19") system punchings

The utility table may be attached directly between the 482.6 mm (19") mounting angles without any additional assembly work. The utility table has a height of 3 U and a support area of 450 x 295 mm; it can be used as a support for measuring devices or splicing equipment during maintenance and wiring work.

Material:
Sheet steel

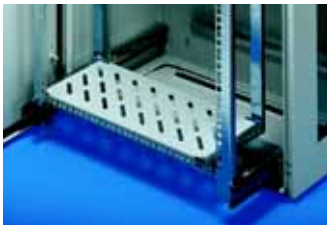
Colour:
RAL 7035

Supply includes:
Assembly parts.

Support surface mm	Model No. DK
450 x 295	7183.100

Note:

Installation in enclosures with a TS trim frame is not possible.



Shelf

for AE with pull-out frame

The vented shelf is inserted into the pull-out frame of wall-mounted distributor DK 7644.000 and may additionally be screw-fastened. In this way, an additional support surface can be created with very little effort. Cage nuts may be clipped into the punchings of the frame, even after the shelf has been inserted.

Material:
Sheet steel

Colour:
RAL 7035

Supply includes:
Assembly parts.

Width mm	Depth mm	Model No. DK
430	195	7644.400

Delivery times available on request.



TS punched section with mounting flange, 17 x 73 mm

as installation kit for component shelves

Simply locate and secure. One pack is sufficient for 2 component shelves.

Load capacity:

100 kg surface load, static

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.

Installation in enclosure depth mm	Packs of	Model No. TS	
		for TS	for FR(i)
500	4	8612.050	–
600	4	8612.060	8612.140
800	4	8612.080	8612.160
900	4	8612.090	–
1000	4	8612.000	8612.180
1200	4	8612.020	8612.100



Installation kit, depth-variable for 482.6 mm (19") component shelf

In conjunction with

- L-shaped mounting angles or
- Mounting frame 482.6 mm (19")

Infinitely adjustable to the spacing between the two pairs of 482.6 mm (19") mounting angles. Suitable for all 482.6 mm (19") component shelves in 409 mm width.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

1 set =
2 mounting rails including assembly parts.

Length mm	Load capacity	Model No. DK
390 – 590	50 kg	7063.858
590 – 790	50 kg	7063.860
706.5 – 1006.5	100 kg	7063.890



Accessories:

Telescopic slides, see page 1025.



Adaptor for L-shaped mounting angles

for TS network enclosures

For mounting component shelves and slide rails on L-shaped mounting angles.

Material:

Sheet steel, zinc-plated, passivated

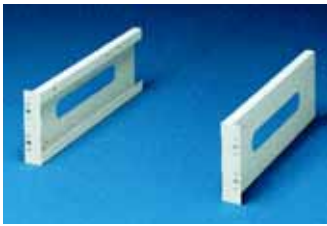
Supply includes:

Assembly parts.

Packs of	Model No. DK
4	7827.300

Interior installation

Installation kits for component shelves



Side parts 3 U

for static installation of component shelves, 482.6 mm (19")

For the attachment of component shelves to a single pair of 482.6 mm (19") mounting angles. The component shelves are screw-fastened to the 3 U side part.

Either one or two component shelves may be secured.

Load capacity:

30 kg surface load, static

Material:

Sheet steel

Colour:

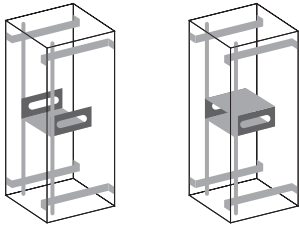
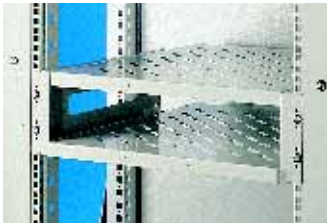
RAL 7035

Supply includes:

2 side parts.

Note:

Not suitable for combination with telescopic slides.



Depth of side parts mm	For component shelves DK	Component shelf depth mm	Model No. DK
400	7143.035	300	7147.035
400	7144.035	400	
400	7145.035	500	

+ Accessories:

Component shelves, 482.6 mm (19"), see page 1017.



Installation kit

for component shelves and drawers, 482.6 mm (19") installation in TS, ES

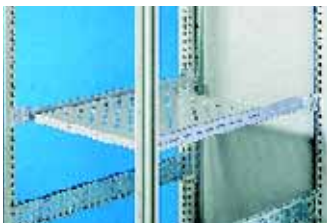
For installation between the front and rear adaptor sections or adaptor pieces, 482.6 mm (19") in 600 mm wide enclosures.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.



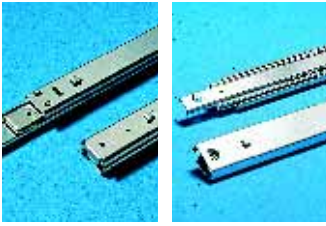
For enclosure depth mm	Packs of	For enclosure system	
		TS	ES
		Model No. TS	Model No. PS
500	1 set	8800.550	-
600	1 set	8800.560	4544.000
800	1 set	8800.580	-

Max. depth of component shelves = enclosure depth minus 100 mm.

! Also required:

Mounting angles, 482.6 mm (19"), see page 1089.

Adaptor pieces, 482.6 mm (19"), see page 1090.



Telescopic slides

for component shelves

Fixed component shelves are easily retro-converted to full withdrawal. For this purpose, the existing fastening bolts or mounting rails (heavy-duty version) are exchanged for the telescopic slides.

Technical specifications:

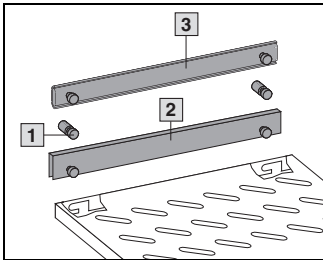
For installation and locking on a 25 mm pitch pattern in the enclosure depth.

Load capacity:

50 kg/100 kg per set

Material:

Sheet steel, zinc-plated, passivated



For component shelf depth mm	Packs of	Model No. DK	
		50 kg	100 kg
300	2	7051.000	–
400	2	7061.000	7064.000
500	2	7081.000	7065.000
600	2	7161.000	7066.000
700	2	7161.700	7066.700

- 1** Fastening bolts
- 2** Mounting rails
- 3** Telescopic slides



Cable support

hinged, with clamp

For secure routing of connection cables from the component shelf to the clamping point. The attachment may be released on both sides thanks to clamps.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.

For enclosure depth mm	Model No. DK
< 600	7163.500
> 600	7163.550



Cable support

hinged, with anti-kink device and clamp

For secure routing of connection cables from the component shelf to the clamping point. Kink-free cable routing in the central part via mobile chain links. The attachment may be released on both sides, thanks to clamps.

Material:

Sheet steel, zinc-plated, passivated
Centre part: Plastic

Supply includes:

Assembly parts.



For enclosure depth mm	Model No. DK
< 600	7163.560
> 600	7163.565



Handles

for pull-out component shelves

The component shelves are prepared for the attachment of handles.

Material:

Die-cast zinc

Surface finish:

Spray-finished, silver-grey

Supply includes:

Assembly parts.

Packs of	Model No. RP
2	3636.010

Interior installation

Accessories for component shelves



Fastening bolts

for slotted component shelves

For non-slip attachment of your components. The bolts are screwed into the slots of the component shelf support surface. Consequently, they are infinitely adjustable and can be adapted to suit any appliance.

Packs of	Model No. DK
4	7115.000



Monitor shelf mounting kit

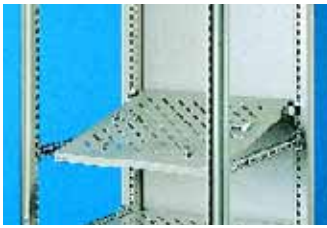
for ES

For inclined installation of a component shelf in the enclosure when used as a monitor shelf.

Supply includes:

2 holders for inclined installation,
2 wire clamps for monitor base,
2 fastening bolts for positioning the monitor base.

	Model No. SZ
Monitor shelf mounting kit	2306.000



Drawer extension lock

for 600 mm wide enclosures based on TS 8

To increase work safety. In conjunction with the stay, prevents simultaneous extension of up to 5 drawer trays or pull-out component shelves and thereby ensures stability.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

PS punched section with mounting flange 23 x 73 mm (to match the enclosure height) and assembly parts.

For enclosure height mm	Packs of	Model No. IW
900	1 set	6902.730
1000	1 set	6902.740

Note:

When installing more than one extendible component shelf/drawer tray, we recommend using the drawer extension lock for work safety reasons. For installation in taller enclosures, one PS punched section with mounting flange 23 x 73 mm (to match the enclosure height) is required.



Accessories:

Stay for drawer extension lock.



Stay

for drawer extension lock

For	Packs of	Model No. IW
Drawers	5	6902.750
Component shelves	5	6902.760



Compact light

Narrower – Faster – Brighter

- **Narrower:** Around 50 % less height and depth and also around 75 % less volume than conventional lights.
- **Faster:** Universal fast attachment via clips, screws, or powerful magnets (optional). Simply slide in at the side or rear, fit the light, and it's done!
- **Brighter:** Up to 75 % greater luminous efficiency from the lamp at the same output helps to cut electricity costs.
- Door-operated switch can also be connected via a 2-pole connection.
- Cable routing on the back of the light enables deflection, e. g. when mounted vertically in a TS 8.

Material:

Body:
PC-ABS (halogen-free)
Light cover:
Polycarbonate (halogen-free)

Colour:

Similar to RAL 7035

Protection category:

IP 20

Supply includes:

Compact light with clip and screw mounting kits, including assembly parts.



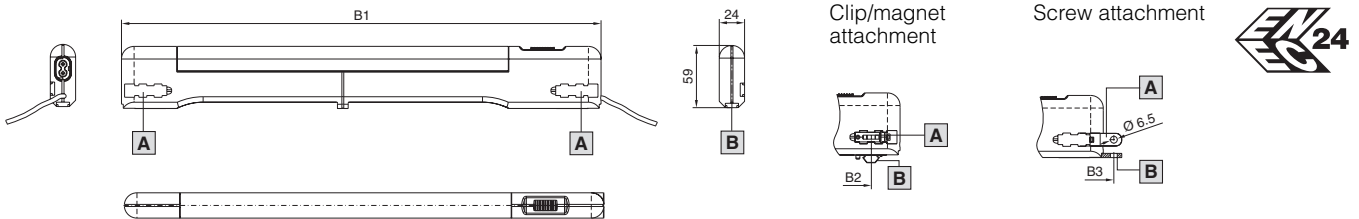
Accessories:

Mounting kit magnet, see below.
Door-operated switch with connection cable, see below.

Model No. SZ	4140.010	4140.020	4140.110	4140.120
Rated voltage	100 – 240 V AC ±10 % at 50 – 60 Hz		24 V DC ±10 %	
Wattage	8	14	8	14
Protection category	II (all-insulated)			
Width (B1) mm	455	705	455	705
Mounting distance (B2) mm	400	650	400	650
Mounting distance (B3) mm	475	725	475	725
Connection cable	3 m (open end)			
Cover colour	Yellow			
Rated current (A)				
– at 230 V AC	0.045 – 0.088	0.073 – 0.127	–	–
– at 110 V AC	0.083 – 0.149	0.149 – 0.216	–	–
– at 24 V DC	–	–	0.35	0.57
Light	Fluorescent lamp T5			
Operating unit	Wide-range electronic ballast		Electronic ballast	
Switches	Integral, on/off/door-operated switch mode			
Light cover	Transparent, grooved on the inside			
ENEC 24	■	■	■	■

A Side attachment

B Rear fastening



Mounting kit magnet

For reliable adhesion on all sheet steel surfaces.

Packs of	Model No. SZ
2	4140.000



Door operated switch

With connection cable

Colour:
Yellow

Length mm	Packs of	Model No. SZ
600	1	4315.700

Interior installation

System lights



System lights

With assembly parts for mounting:

- On the enclosure profile:
For TS, horizontally (directly), or vertically in conjunction with an adaptor angle
- Directly onto rail systems with 25 mm system punchings
- In AE, CM and TP using universal bracket SZ 2373.000.

Light:

Universal white

Protection category:

IP 20 to EN 60 529/09.2000



Also required:

Connection accessories, see page 1030.



Accessories:

Adaptor bracket, see page 1005.
Universal bracket, see page 1009.

Components	Standard light	Courtesy light	Universal light	System light
Sockets and connectors for:				
- Power supply	■	■	■	■
- Through-wiring	■	■	■	■
- Door-operated switch: Facility for connecting/integral	■/■	■/■		■/-
Jack for normally open contact			■	■
Motion sensor			■	
Interference suppression via:				
- Radio interference suppression capacitor	■			
- Full-electronic ballast		■	■	
Additional manual switching with rocker or slide switch	■	■	■	■
Light cover		■	■	
Light cone adjustment			■	
Individual voltage supply 100/110 – 240 V		■	■	



Standard light

Technical specifications	Socket	Width mm	Height mm	Depth mm	Model No. SZ	Approvals
14 kW, 230 V, 50 Hz	Yes	452	117	50	4138.140	ENEC
					4138.150 ¹⁾	
18 kW, 230 V, 50 Hz	Yes	682	117	50	4138.180	ENEC
					4138.190 ¹⁾	
30 kW, 230 V, 50 Hz	Yes	987	117	50	4138.300	ENEC
					4138.350 ¹⁾	

With fluorescent lamp, socket G13, length 375/604/908 mm
¹⁾With door-operated switch



Courtesy light

Technical specifications	Socket	Width mm	Height mm	Depth mm	Model No. SZ	Approvals
14 W, 100 – 240 V, 50/60 Hz	Yes	452	117	50	4139.140	ENEC
					4139.150 ¹⁾	
18 W, 100 – 240 V, 50/60 Hz	Yes	682	117	50	4139.180	ENEC
					4139.190 ¹⁾	
30 W, 100 – 240 V, 50/60 Hz	Yes	987	117	50	4139.300	ENEC
					4139.350 ¹⁾	

With fluorescent lamp, socket G13, length 375/604/908 mm
¹⁾With door-operated switch





Universal light with integral motion sensor

Technical specifications	Socket	W mm	H mm	D mm	Model No. SZ	Approvals
26 W, 110 – 240 V, 50/60 Hz	Yes	345	95	55	4155.100	VDE
	No	345	95	55	4155.000	VDE
	No	345	95	55	4155.500	UL

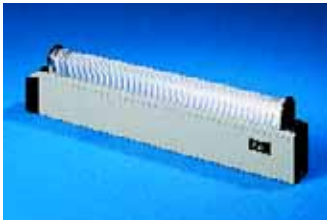
With compact fluorescent lamp, TC-DEL 26 W, base G24q-3, length 174 mm



System light with filament tube (Linestra)

Technical specifications	Socket	W mm	H mm	D mm	Model No. SZ
35 W, 230 V AC/DC	No	380	59	41	4103.350¹⁾
60 W, 230 V AC/DC	No	580	59	41	4103.600²⁾

With filament tube.
¹⁾ Base 35 S14s, length 300 mm
²⁾ Base 60 S14s, length 500 mm



Enclosure light, 48 V DC

Specifically designed for use in telecommunication when built-in equipment may require a battery back-up. For mounting on the 25 mm system punchings.

Technical specifications:
 14 W, 48 V DC, rated current: 0.38 A

Width mm	Height mm	Depth mm	Model No. CS
452	117	50	9765.100

Connection cables for	Cable length m	Packs of	Model No. CS
Power supply with socket, without connector	3	1	9765.137
Through-wiring with socket and connector	1	1	9765.138



Enclosure light, 48 V DC

With connection cable

Robust light. For attachment vertically or horizontally in the frame section via spring brackets, or may be used as a direct light source during maintenance work by inserting the plastic swivel hook. Impact-resistant lamp housing of PMMA (polymethylmethacrylate) protection category II.

Protection category:
 IP 64

Supply includes:
 2 spring brackets and assembly parts.

Packs of	Model No. CS
1	9765.150

Technical specifications:

Luminosity: 11 W
 Luminous efficiency: 900 lm
 Fluorescent tube: TC-SEL 11 W, 4-pin
 Ambient temperature: -20°C to +40°C
 Voltage: 48 V DC ±10 %
 Supply lead 3000 mm, H05RN – 2 x 1 mm, without connectors, with crimped ferrules
 Length:
 450 mm overall
 Protective tube 320 mm
 Light outlet 195 mm
 Diameter:
 62 mm overall
 Protective tube 38 mm



Light 1 U

Complete ready-to-connect light for installation in the 482.6 mm (19") mounting angles. The slot attachment additionally allows it to be fastened to the 25 mm system punchings.

Technical specifications:
 8 W, 230 V, 50 Hz.
 With mains switch and 2.5 m connection cable with fitted earthing-pin plug.

Material:
 Aluminium, anodised, plastic

Packs of	Model No. DK
1	7109.200

Interior installation

System lights

Connection accessories

The following components can be used for time-saving and simple installation of the lights:



Accessories:

Cable ties for quick assembly, see page 1066.



Connection cable for	Length mm	Packs of	Model No. SZ		
			orange	yellow	grey
Power supply (with socket, without connector)	3000	5	4315.100	4315.110	–
Power supply (with socket and strain relief, without connector)	3000	1	–	–	4315.150
Through-wiring (with socket and connector)	600	1	–	–	4315.450
Power supply via connection component/through-wiring (with socket and connector)	600	5	4315.400	4315.410	–
	1000		4315.200	4315.210	–
	4000	1	4315.600	4315.610	–



Door-operated switch With mounting accessories	Length mm	Packs of	Model No. SZ	
			orange	yellow
With connection cable	600	1	4315.500	4315.510
	1000		4315.300	4315.310
Without connection cable	–		4127.000	
Also required: Mounting kit for installation in TE			Model No. FR 7952.100	



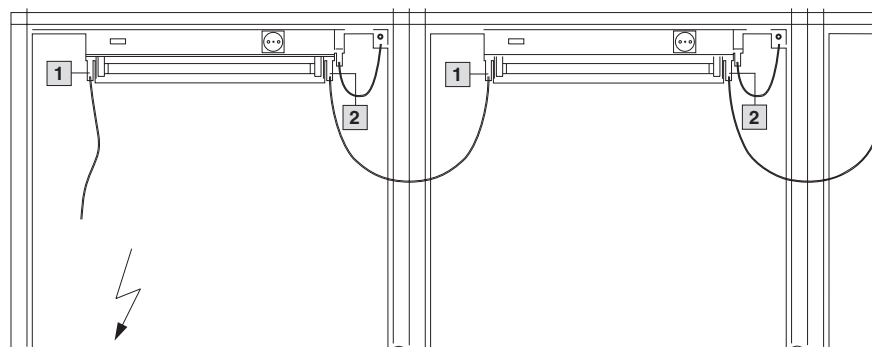
Door-operated switch With toggle	Technical specifications	Packs of	Model No. SZ
Without connection cable, for TS enclosures with installed large swing frame. The toggle is actuated via the tubular door frame of the sheet steel door, or in the case of glazed doors, via an adaptor included with the supply.	230 V AC, 6 A 24 V DC, 10 A	1	4127.200



Connection component with circuit-breaker 10 A	Packs of	Model No. SZ
Reduce assembly costs: Power is supplied rapidly and reliably to system lights and workstation via connection cables. For independently configured cables, connector SZ 2507.200 must be used. Connection component to be snapped onto the top hat rail.	1	2507.500



For self-assembly	Packs of	Model No. SZ
Sockets for power supply Through-wiring	5	2507.100
Connectors for connection component Through-wiring		2507.200
T distributor with 2 sockets, 1 connector		2507.300
Connector for door-operated switch cable		2507.400



- 1 Connector
- 2 Socket



Rail

for EMC shielding bracket and strain relief

Combined rail for strain relief and EMC contacting of inserted cables.

Mounting options:

- On the horizontal/vertical TS, PC, ES enclosure section
 - On a mounting plate
- May also be fitted without a retaining bracket.
Additional contacting on the left or right of the rail via existing holes (9 mm diameter).

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.



Width mm	Packs of	Model No. SZ
600	1	2388.600
800	1	2388.800



Also required:

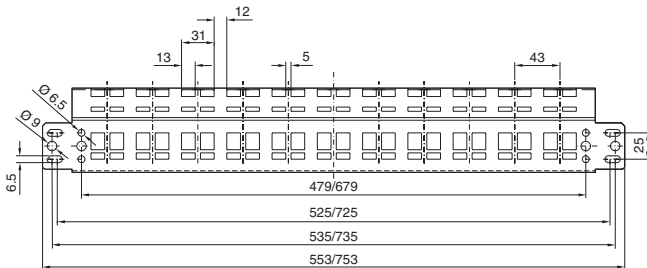
EMC shielding bracket, see below 1031.
Cable clamps for strain relief, see page 1031.



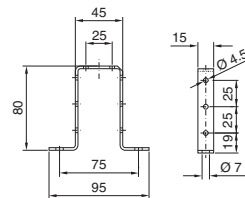
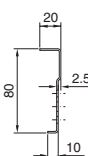
Accessories:

Earth straps, see page 1034.
Earthing strap, see page 1034.

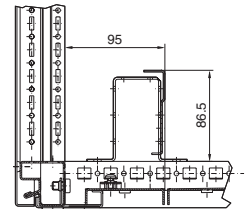
Rail



Retaining bracket



Mounting position



EMC shielding bracket

Diameter changes are compensated in full by the spring of the EMC shielding bracket.
Attachment without the use of tools:
Press the EMC shielding bracket against the cable shield and clip into the rail.

Material:

Sheet steel, zinc-plated, passivated

For shield diameter mm	Packs of	Model No. SZ
3 – 10	10	2388.100
4 – 15	10	2388.150
10 – 20	10	2388.200
15 – 28	10	2388.280



Cable clamps

Simply locate into the bottom of the rail and tighten the pressure plate for strain relief.

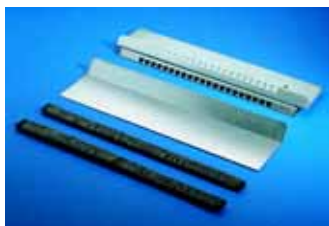
Material:

Sheet steel, zinc-plated, passivated

For cable diameter mm	Packs of	Model No. SZ
6 – 14	10	2388.140
12 – 18	10	2388.180
18 – 22	10	2388.220
22 – 26	10	2388.260

Interior installation

EMC



EMC gland plates

For shielded cables with a maximum diameter of 20 mm. Combined EMC/IP seal provides low-resistance contact between cable shield and gland plate. For all 400, 500, 600 and 800 mm deep enclosure in conjunction with standard gland plates.

Supply includes:

1 gland plate with twin hammer-head punching,
1 sliding gland plate,
2 IP/EMC gaskets.

Width mm	Packs of	Model No. TS
600	1 set	8800.660
800	1 set	8800.680
1000	1 set	8800.600¹⁾
1200	1 set	8800.620¹⁾

¹⁾For one enclosure half only

German patent no. 196 04 219



Metal cable ties

For 360° contact of shielded cables on the EMC gland plate. The cable ties are not toothed, thereby eliminating the risk of damage to insulation and braided screens.

Material:

Stainless steel, anti-magnetic and rust-proof

Length mm	Width mm	Packs of	Model No. SZ
125	4.6	50	2598.125
200	4.6	50	2598.200



Tightening tool

For simple tightening of the metal cable ties.

Packs of	Model No. SM
1	2585.000



EMC cable glands

The cable sheathing may optionally be interrupted at the contact point or removed completely inside the enclosure.

The cable shield in the enclosure is retained. The supplied lock nut cuts automatically into the paint when screwed down, thus creating a conductive connection.

Protection category:

IP 68 to EN 60 529/09.2000
IP 69K to DIN 40 050-9

↔ Possible alternative:

Cable gland Hygienic Design, see page 1056.

Cable glands, metric

Size	Cable diameter mm	Minimum ¹⁾ shield diameter mm	Packs of	Model No. SZ
M16	4.5 – 10	3	5	2843.160
M20	6 – 12	5	5	2843.200
M25	11 – 17	8	5	2843.250
M32	15 – 21	10	1	2843.320
M40	19 – 28	15	1	2843.400
M50	27 – 38	19	1	2843.500
M63	34 – 44	30	1	2843.630

Cable glands, PG

PG size	Cable diameter mm	Minimum ¹⁾ shield diameter mm	Packs of	Model No. SZ
9	4 – 8	3	5	2411.090
11	5 – 10	4	5	2411.110
13.5	6 – 12	5	5	2411.140
16	10 – 14	8	5	2411.160
21	13 – 18	10	1	2411.210
29	18 – 25	15	1	2411.290

¹⁾Minimum shield diameter = cable diameter minus cable sheathing



EMC shield bus

Made of yellow passivated steel strip, 75 mm² cross section, for cable shield contact.

Supply includes:
Assembly parts.

Rail length mm	Connections	Packs of	Model No. SZ
375	10	1	2413.375
550	16	1	2413.550



EMC earth clamps

The clamps may be used directly on the consumer or operating equipment on the mounting plate for cable shield contact.

Material:
Sheet steel, zinc-plated, passivated.

Size mm	Packs of	Model No. SZ
4	50	2367.040
6	50	2367.060
8	50	2367.080
12	50	2367.120
16	50	2367.160
20	25	2367.200¹⁾

¹⁾ 2 assembly brackets



EMC baying seal

for TS

For baying enclosure systems. Seal with all-round, electrically conductive sheathing.

Cross section mm	Model No. TS
6.3 x 6.3	8800.690

Packs of 1 set consisting of 3 units, length 2 m each



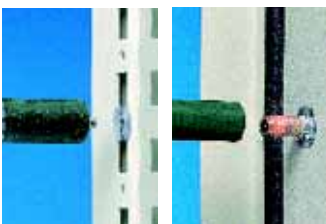
EMC divider panel seal

This seal ensures optimum contact in bayed EMC enclosure systems and when using a zinc-plated divider panel.

Material:
PU foam with electrically conductive sheathing.

Supply includes:
1 roll (12.7 x 12.7 x 5300 mm).

Packs of	Model No. SZ
1	4348.000



Contact cutter

The contact cutter enables EMC-compatible preparation of the contact point e. g. for earthing straps.

Plastic-bound abrasive with guide pin for round system punchings.

With location point for drill, grinder etc.

	Model No. SM
For frame section	2414.000
For earthing bolts ¹⁾	2414.500

¹⁾ Not necessary with TS 8

Contact paint

Contact paint prevents the corrosion of conductive, unprotected contact points.

Contents:
12 ml

Packs of	Model No. SZ
1	2415.000

Interior installation

Earthing



Earth straps

For configuring a reliable earthing connection with perfect contact.

- With ring terminals in M6 and M8 to match the earthing screw
- Length-optimised and ready to install

Cases	Connection options		
	Door/lid	Cases	Mounting plate
KL	M6	M6	M8
EB/BG/ IN 1510.280	M6	M6/M8 ¹⁾	-
AE/ IN 1076.290	M6	M6 ²⁾ /M8	M8
KE/KEL	M8	M8	M8
AP/CM/TP	M6	M8	M8
ES/TS	M8	M8	M8
PC	M8	M8	-

¹⁾ M8 with BG 1050.900

²⁾ M6 with AE 1032.XXX/AE 1035.XXX

Connection	Cross section mm ²	Length mm	Packs of	Model No. SZ
M8 – M8	4	170	5	2564.000
M6 – M8	4	170	5	2564.010
M6 – M6	4	170	5	2564.020
M8 – M8	16	170	5	2565.000
M8 – M8	25	170	5	2566.000
M6 – M6	10	200	5	2565.100
M8 – M8	4	300	5	2567.000
M6 – M8	10	300	5	2565.110
M8 – M8	10	300	5	2565.120
M8 – M8	16	300	5	2568.000
M8 – M8	25	300	5	2569.000



Earthing strap

Tin-plated copper, in various lengths and cross-sections with press-fitted contact rings. Earthing straps counteract the current displacement effect at high frequencies, whilst at the same time offering highly flexible connection opportunities.

For	Cross-section mm ²	Length mm	Packs of	Model No. SZ
M6	10	200	10	2412.210
M8	16	200	10	2412.216
M8	25	200	10	2412.225
M6	10	300	10	2412.310
M8	16	300	10	2412.316
M8	25	300	10	2412.325



Assembly parts

For fastening the earth straps and earthing braids to:

- Horizontal TS enclosure sections
- RS rail system
- ES system punchings

Size	Packs of	Model No. SZ
M6	10 sets	2570.000
M8	10 sets	2559.000



Also required:

For mounting on the horizontal TS enclosure section: Captive nut, see page 1010.



Contact washers

Toothed contact washers facilitate secure PE conductor connection. As a result, there is no need to manually strip paint in the connection area.

Size	Packs of	Model No. SZ
M5	100	2343.000
M6	100	2334.000
M8	100	2335.000



Earthing plate

For installation in:

- Comfort Panel
- VIP 6000
- Optipanel
- TS
- ES

One earthing cable can be screw-fastened to the threaded bolt and can be distributed to up to 8 components via 6.3 mm flat-pin connectors.

Packs of	Model No. SZ
1	2570.500

Supply includes:

Assembly parts.



Central earthing point

For connecting

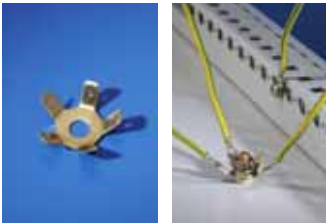
- Earth straps
- Earthing braids

to the vertical and horizontal enclosure profile. The connection bracket is connected to the enclosure frame with 2 screws and is securely contacted. Earth connection is carried out via the threaded bolt M8 x 20 mm.

Material:
Sheet steel, zinc-plated, passivated.

Packs of	Model No. DK
1	7829.200

Supply includes:
1 connection bracket,
2 screws 5.5 x 13 mm,
2 serrated washers,
1 nut M8,
1 contact washer M8,
1 washer.



Potential equalisation star for 8 mm earthing bolt

The earthing connector is used for simple potential equalisation on an 8 mm earthing bolt, or in conjunction with central earthing point DK 7829.200. Up to five flat connectors (6.3 mm) may be contacted on one earthing point.

Packs of	Model No. DK
10	7548.210

Supply includes:
10 earthing connectors, including assembly parts.

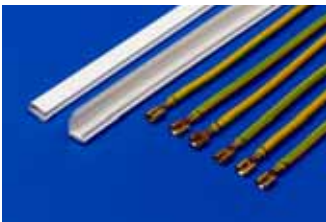


Complete earthing kit for DK-TS

To DIN EN 60 950/VDE 0805, Ø 4 mm², I_{max}. 40 A. For system-compatible earthing of all enclosure parts on the enclosure frame according to VDE. The earth conductors are pre-assembled ready for connection with connectors and cut to the right length.

Packs of	Model No. DK
1 set	7829.150

Supply includes:
Central earthing point and assembly parts.



Complete earthing kit for TE

To DIN EN 60 950/VDE 0805, Ø 4 mm², I_{max}. 40 A. For system-compatible earthing of all enclosure parts on the enclosure frame according to VDE. The earth conductors are pre-assembled ready for connection with connectors and cut to the right length.

Packs of	Model No. TE
1 set	7000.675

Supply includes:
Assembly parts.



Earthing kit KE

For producing the required external potential equalisation for painted series enclosures

- KL
- AE
- TS

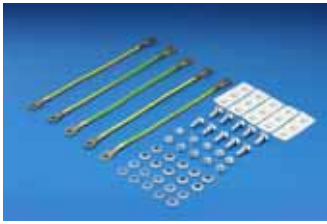
For applications in Unit Group II, Category 3, in compliance with Directive 94/9 EU – Appendix VIII, internal production control.

Packs of	Model No. KE
5	9214.000

Supply includes:
Packs of 5

Interior installation

Earthing

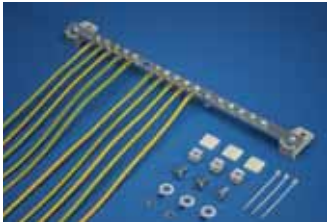


Earthing kit

for KL

Consisting of all the screws, nuts, contact washers and earthing strip needed to earth the cover; length 250 mm, cross-section 4 mm².

Packs of	Model No. KL
5	2570.100



Earthing kit

for TC Rack

To DIN EN 60 950/VDE 0805, I_{max} 40 A. For star earthing. With the pre-assembled earth conductors, star potential equalisation is easily integrated.

Packs of	Model No. DK
1 set	7277.000

Supply includes:

Earthing leads 6 mm², assembly parts for earthing leads, earth rail.



Earthing kit

for QuickBox

Earth straps in the appropriate lengths to match the enclosure depth are included in the earthing kit, for earthing all enclosure panels on the wall mounting part. The earth strap is a fast-on connector which is quickly disconnected and conveniently accessible when the door is open. In this way, the enclosure cover can be removed completely.

For enclosure depth mm	Packs of	Model No. QB
300/400	1 set	7502.240
500/600	1 set	7502.260

Supply includes:

5 earth leads 1.5 mm², 4 cable retention clips, assembly parts.



PE busbar

695 mm long PE busbar with pre-fitted screws, including terminal clamps up to 6 mm² (fine wire conductors), 10 mm² (single wire or multi-wire conductors) and main terminal clamp up to 35 mm².

Packs of	Model No. SZ
1	2364.000

Accessories:

Rail mounting bracket, see page 1009.



Earth rail, horizontal

for TS, FR(i)

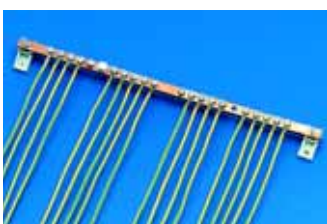
Potential equalisation rail

Current carrying capacity approx. 200 A.

Supply includes:

Earth rail made from E-Cu 57 to DIN EN 12 163, DIN EN 13 601, 15 x 5 mm, 20 connection points with M5 screws, 2 earth connections 25 mm², 2 isolators, including assembly parts.

Length mm	Packs of	Model No. DK
450	1	7113.000



Earthing kit, pre-assembled

for DK-TS

For star earthing. With the pre-assembled earth conductors on a potential equalisation rail, star potential equalisation is easily integrated into network enclosures.

Supply includes:

Earth rail made from E-Cu 57 to DIN EN 12 163, DIN EN 13 601, earthing leads 6 mm², 2 isolators, incl. assembly parts.

For TS enclosures up to W x H x D mm	Packs of	Model No. DK
800 x 2000 x 800	1 set	7829.100
800 x 2200 x 1000	1 set	7829.110



Earth rail, vertical

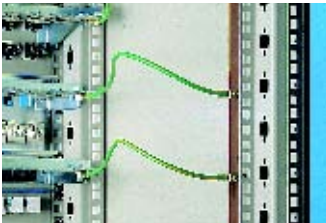
for network enclosures

Easily fitted to the 25 mm DIN pitch pattern of distributors or to the 482.6 mm (19") mounting angles. The supplied earth conductors facilitate star earthing of the cable clamp straps in the patch panels.

The earth terminals are fully adjustable.
Current carrying capacity of rail approx. 200 A.

Supply includes:

Earth rail made from E-Cu 57 to DIN EN 12 163, DIN EN 13 601, 15 x 5 mm,
16 conductor connection clamps with 2.5 – 16 mm²,
15 earthing leads 6 mm², L = 500 mm,
including assembly parts.



For enclosure height mm	Length mm	Packs of	Model No. DK
800	600	1 set	7541.000
1000	800	1 set	7542.000
1200	1000	1 set	7543.000
1400	1200	1 set	7544.000
1600	1400	1 set	7545.000
1800	1600	1 set	7546.000
2000	1800	1 set	7547.000
2200	2000	1 set	7548.000



Expansion kit

for earth rail, vertical

For system-compatible expansion of the star earthing on the vertical potential equalisation rail.

Supply includes:

Earthing leads 6 mm², pre-configured, with ring terminals and wire end ferrules, L = 500 mm, with earth terminals 2.5 – 16 mm², including assembly parts.

Packs of	Model No. DK
10	7549.000



ESD connection point

During maintenance or conversion work on the enclosure, dangerously high potential differences can occur. To protect sensitive electronic components, this standardised connection point (push-button) provides potential equalisation. The connection point is directly conductively connected to the enclosure frame via two screws.

Material:

Sheet steel, zinc-plated, passivated

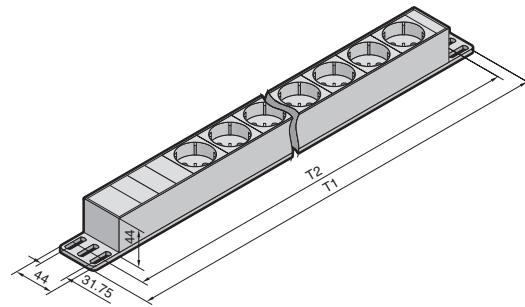
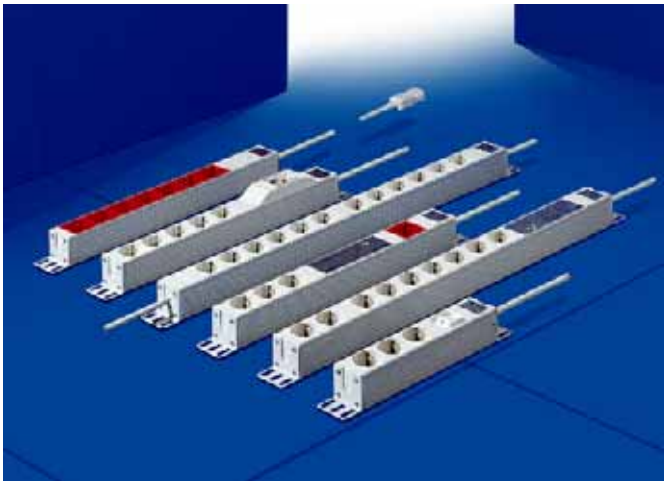
Supply includes:

Assembly parts.

Packs of	Model No. DK
1	7752.950

Voltage supply

Socket strips



The socket strips in the aluminium channel are available in various lengths with different functional elements. Special attention has been devoted to practical, universal fastening: Variable attachment facilities have been created with an angle bracket which may be inserted in four positions. Hence, for example, the 482 mm long socket strip may optionally be mounted on 482.6 mm (19") mounting angles, the 482.6 mm (19") mounting frame, on the enclosure frame, or in the rear section of the wall-mounted distributor.

Without additional mounting accessories, the socket strip may be inserted into all sections with a 25 mm pitch pattern. This makes selection much easier, as well as providing additional flexibility and saving on warehousing. Provision has also been made for cable routing of the infeed, and when mounting in the 482.6 mm (19") section there is adequate space to route the infeed between the socket strip and the mounting angle without kinks. The arrangement of the sockets at a 45° angle allows unrestricted use of angular connectors.

Technical specifications:

Rated voltage: 250 V
Rated current: 10/16 A
Connection cable: 2 m long H05VV-F3G1.5 with wall connector

Material:

Aluminium section natural-anodised, socket inserts polycarbonate

Supply includes:

Socket strip, two mounting brackets, assembly parts.

Standards:

Sockets:
DIN VDE 0620-1 (VDE 0620-1: 2005-04)
Sockets B/F:
UTE NFC 61-303, CEE 7/NV
Overvoltage protection for low voltage:
DIN EN 61 643-11 (VDE 0675 part 6-11): 2002: 12
EMC interference suppression filter:
DIN EN 60 939-2 (VDE 0565 part 3-1, 2006/5),
DIN VDE 0620-1 (VDE 06204-1: 2005-04)

Detailed drawing,
see page 1039.

Design	Number of sockets	Attachment			Length (T1) mm	Mounting dimension (T2) mm ¹⁾	Model No. DK
		Frame	Wall-mounted distributor, horizontal	482.6 mm (19") level			
Without rocker switch	3	■			262.6	232.5	7240.110
	7	■	■	■	482.6	452.5	7240.210
	12	■			658.6	628.5	7240.310
With rocker switch	3	■	■		306.6	276.5	7240.120
	7	■	■	■	482.6	452.5	7240.220
Overvoltage protection and interference suppression filter	5	■	■	■	482.6	452.5	7240.230
	9	■			658.6	628.5	7240.330
Overvoltage protection and interference suppression filter, with RJ 10 connector for connection to the CMC	9	■			812.6	782.5	7200.630
Miniature circuit-breaker	5	■	■	■	482.6	452.5	7240.240
Master-Slave	1 + 3	■	■	■	482.6	452.5	7240.250
UPS strip	7	■	■	■	482.6	452.5	7240.260
RCCB	5	■	■	■	482.6	452.5	7240.280
RCCB and line protection	5	■	■	■	482.6	452.5	7240.290
For IEC 320 connectors 10 A	12	■	■	■	482.6	452.5	7240.200
For IEC 320 connectors with IEC 320 input, 10 A	9	■	■	■	482.6	452.5	7240.201
For IEC 320 connectors with overvoltage protection and interference suppressor filter, 10 A	6	■	■	■	482.6	452.5	7240.205
With 2 circuits	6 + 6	■			720.6	690.5	7240.370
B/F sockets (Belgium, France)	7	■	■	■	482.6	452.5	7240.510
B/F sockets (Belgium, France)	12	■			658.6	628.5	7240.512

¹⁾ Variable attachment distance within a range of 25 mm, the distance given is hole centre – hole centre of mounting bracket.

Technical properties depending on variant:

Rocker switch

Illuminated, 2-pole switch. The safety bars prevent accidental contact.

Master/Slave

2-pole electronic automatic switching unit. The operating point may be set from 9 W to 35 W. Equipment which switches to energy-saving or stand-by mode when switched on cannot be used as the master device. In the ON state, the master device must draw 9 W, and must not draw more than 35 W in the OFF state.

Overvoltage protection and interference suppression filter

The connected equipment is protected from voltage peaks in the mains and spikes. The EMC interference suppression filter provides protection from high-frequency interference voltage from both directions – the mains and the connected equipment. The green ready light is extinguished in the event of disconnection or malfunctions. Connected equipment remains disconnected.

Overvoltage protection device (SPD), type 3

Maximum continuous voltage U_c : 280 V AC
 Rated current I_L : 16 A
 Maximum overvoltage protection on the mains side:
 LS:B16A or 16AgL/gG
 Protection level Up: 1.5 kV
 Combined surge U_{co} (L-N): 5 kV
 Combined surge U_{co} (L/N-PE): 10 kV
 Rated discharge current I_n (L-N): 5 kA
 Rated discharge current I_n (L/N-PE): 15 kA
 Arrester disconnector: Permanently disconnects SPD and equipment from the mains.
 Status display: Green ready light is extinguished upon disconnection.

Overvoltage protection and interference suppression filter, with RJ 10 connector for CMC connection

With the relay message contact, under-voltage and failures caused by overvoltage can be reported in the network via the CMC via SNMP trap.
 Relay alarm output: RJ 10 jack
 Load capacity of relay: 50 V DC, 100 mA

Circuit-breaker

Protects cables from short-circuit and overload. 2-pole switching (thermal/magnetic). Tripping characteristic B, to DIN VDE 0641/A4/1188, 16 A/250 V~.

UPS strip

With red socket strip inserts. These indicate the items of equipment protected by a UPS. Connection cable with IEC 320 connector. Cable: H05VV-F3G1.0/rated current: 10 A.

2 circuits

Two circuits with two separate connection cables, 2.5 m.

FI protection

For personal protection. With residual current circuit-breaker $I_{\Delta n}$ 30 mA to DIN VDE 0664 part 1/85.

RCBO protection

A combination of personal, overload and short-circuit protection. With residual-current circuit-breaker $I_{\Delta n}$ 30 mA to DIN VDE 0664 part 1/85 and residual-current circuit-breaker to DIN VDE 0641/A 4/11.88 16 A/250 V~.

Version B/F (Belgium/France)

With 7 or 12 sockets to CEE 7-V UTE, with child-proof system.

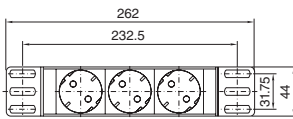
IEC 320 connector

Standard E IEC 320,

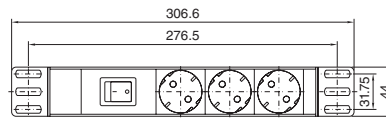
Built-in IEC 320 socket

Standard F IEC 320, DIN standard for both: up to 70°C, DIN EN 60 320-2-2: 1999-09, DIN EN 60 320-1: 2002-06, DIN EN 60 320-1: 2001. connection cable, 2 metres or IEC 320 input in the connector panel. Cable: H05VV-F3G1.0/rated current: 10 A.

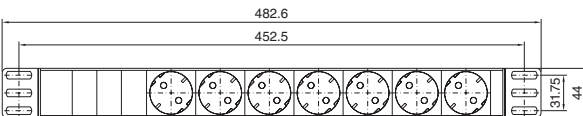
DK 7240.110



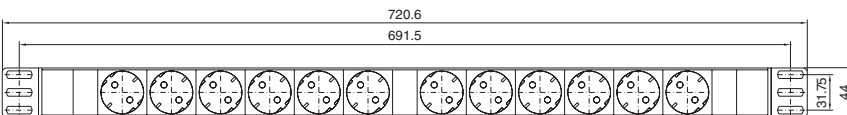
DK 7240.120



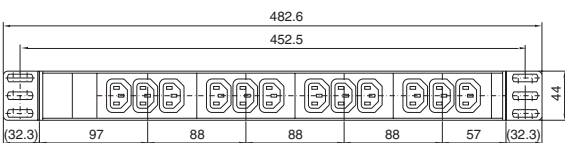
DK 7240.200 – DK 7240.290



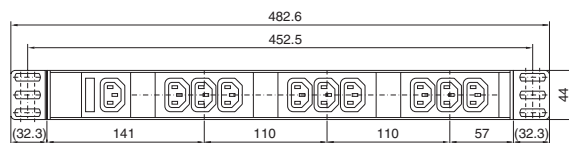
DK 7240.370



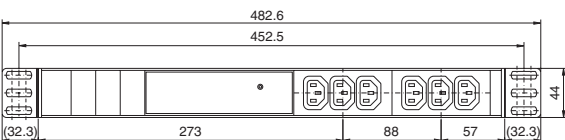
DK 7240.200



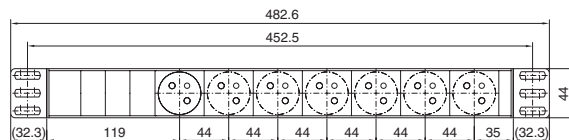
DK 7240.201



DK 7240.205



DK 7240.510



Voltage supply

Socket strips



Socket strips With C13/19 sockets

For further details, see page 1038.

Design	Number of sockets	Attachment			Length mm	Mounting dimension mm ¹⁾	Model No. DK
		Frame	Wall-mounted distributor, horizontal	482.6 mm (19") level			
C13 IEC 320 socket ³⁾	15	■			592.6	562.5	7240.130
C13 IEC 320 socket ³⁾ with RC protection	15	■			724.6	694.5	7240.140
C13 IEC 320 socket ³⁾ with 2 ²⁾ infeeds	9 + 9	■			764.6	734.5	7240.150
C19 IEC 320 socket ⁴⁾	6	■	■	■	482.6	452.5	7240.160
C19 IEC 320 socket ⁴⁾ with overvoltage protection device	4	■	■	■	482.6	452.5	7240.170
C19 IEC 320 socket ⁴⁾ with RC protection	4	■	■	■	482.6	452.5	7240.180
C19 IEC 320 socket ⁴⁾ with 2 ²⁾ infeeds	3 + 3	■	■	■	478.6	448.5	7240.190

All socket strips may also be ordered with a Wieland GST infeed.

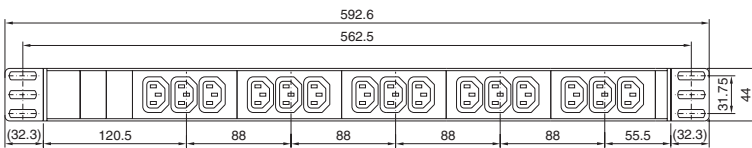
¹⁾ Variable attachment distance within a range of 25 mm, the distance given is hole centre – hole centre of mounting bracket.

²⁾ In order to make allowance for the higher output density e.g. in an IT environment, the socket strips are equipped with 2 independent infeeds. This means it is possible to supply 2 x 16 A/250 V with one socket strip.

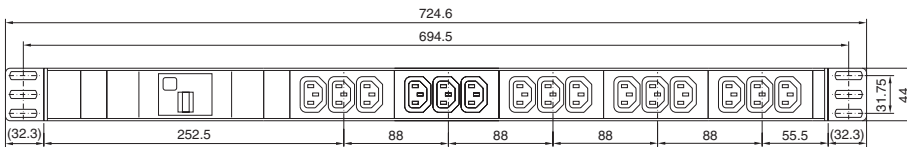
³⁾ With IEC 320 socket to standard F EN 60 320-2-2

⁴⁾ With IEC 320 socket to standard J EN 60 320-2-2

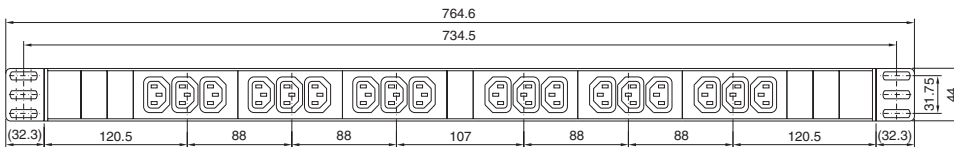
DK 7240.130



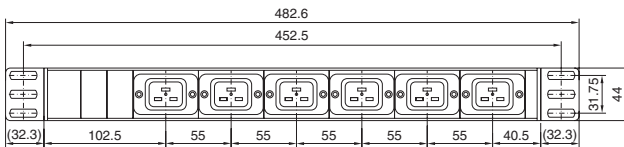
DK 7240.140



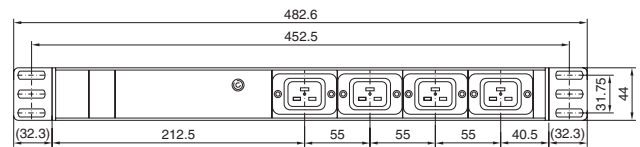
DK 7240.150



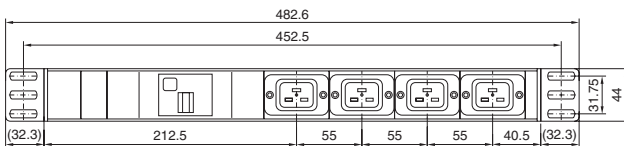
DK 7240.160



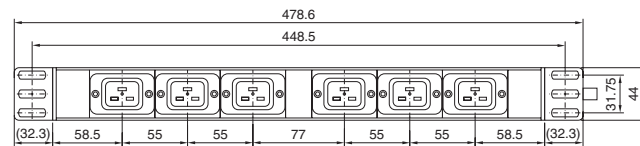
DK 7240.170



DK 7240.180



DK 7240.190





Socket strips 230 V

Technical specifications:

Rated voltage 250 V AC,
max. load
CH 10 A,
GB 13 A.

Material:

Plastic, halogen-free
Connection cable, 2 m long, without connector
H05VV-F3G1 (CH)
H05VV-F3G1.5 (GB)
Unrestricted use, even of angular connectors,
by arranging the plug-in contacts in a long row.

UK, CH version		Model No. DK UK version	Model No. DK CH version
Number of sockets	Length mm		
6	470 ¹⁾	7404.000	7604.000²⁾
12	793	7408.510	7608.510²⁾
18	1153	7412.510²⁾	–

¹⁾The socket strips can be mounted horizontally at the rear of the DK wall-mounted distributor based on EL/AE.

²⁾Extended delivery times.



Socket strip TE

8-way socket strip for earthing-pin plug/version D. The strip is made of plastic and may be mounted vertically on the TE frame or in the rear 482.6 mm (19") section. In the 482.6 mm (19") section, more than 2 U of space is required. The sockets are arranged at an angle of 45° so that angular connectors are also easily used. The socket strip is supplied with a 2 m connection cable. The connection cable is attached in a terminal raceway in the strip.

The terminal slot is equipped with a separate cover, so that this connection point can always be quickly and easily accessed. Replacement of the connection cable is likewise simple. Furthermore, the socket strip has external terminals for separate earthing.

Socket strip TE	Model No. DK
8-way, earthing-pin	7000.630

Technical specifications:

Rated voltage: 230 Volt AC
Rated current: Max. 10/16 A
Connection cable: Length 2 m, H05VV-F3G1, 1.5 mm², without connectors, with wire end ferrules



Socket strip, 482.6 mm (19")

with optional locking of the cable outlets

The socket strip is constructed from an aluminium channel and is 482.6 mm (19") wide and 1 U high, and may be integrated into all standard 482.6 mm (19") mounting frames. Special attention has been devoted to practical, universal fastening. The universal mounting bracket creates variable mounting opportunities. For example, the 439 mm long socket strip may optionally be mounted on the 482.6 mm (19") mounting angle or on the punched section with mounting flange and enclosure frame.

Additionally, a locking option for the outgoing cables to the equipment has now been integrated. This protects the cables from unintentional loosening, which in turn increases the security and availability of applications.

Design	Model No. DK
12 x C13	7240.600

Technical specifications:

Mains voltage: 250 V
Rated current: 10/16 A
Connection cable: 1.5 m

Supply includes:

Socket strip, two mounting brackets, assembly parts.

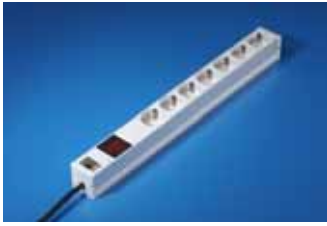
Accessories:

PSM cable lock,
see page 790.



Voltage supply

Socket strips



Socket strips

with ammeter

The socket strip with ammeter measures the active power of the connected equipment. The two variants "earthing pin contact" and "IEC 320 socket C13" provide the most commonly used plug-in contacts in data centres. The 482.6 mm (19") long socket strip may optionally be mounted on the 482.6 mm (19") mounting angles, on the 482.6 mm (19") mounting frame, on the enclosure frame or in the rear section of wall-mounted distributors. The installation bracket may be mounted in four different positions for variable mounting. Without additional mounting accessories, the socket strip may be inserted into all sections with a 25 mm pitch pattern.

Material:

Aluminium section: Natural-anodised
Socket inserts: Polycarbonate

Supply includes:

Socket strip with two mounting brackets including assembly parts,
1.5 m connection cable with open ends.

Technical specifications:

Mains voltage: 250 V
Rated current: 10/16 A, C13 earthing-pin
Connection cable: 1.5 m

Design	Number of sockets	Attachment			Length mm	Mounting dimension mm ¹⁾	Model No. DK
		Frame	Wall-mounted distributor, horizontal	482.6 mm (19") level			
Earthing-pin socket	6	■	■	■	482.6	464.1	7240.300
C13 IEC 320 socket	8	■	■	■	482.6	464.1	7240.305

¹⁾ Variable attachment distance within a range of 5 mm, the distance given is hole centre – hole centre of mounting bracket.



Junction box with multi-functional bracket

The angle bracket can be installed in all network enclosures in a system-compatible design. The junction box serves as a transfer point for the power supply to all equipment (fans, lamps and socket strips). As well as being used as a junction box or interchange point, the bracket may also accommodate the thermostat (SK 3110.000) or the hygostat (SK 3118.000) thanks to its intergal holes.

Packs of	Model No. DK
1 set	7280.035

Material of bracket:

Sheet steel

Colour of bracket:

RAL 7035

Supply includes:

1 bracket, 1 junction box,
6 m connection cable 3 x 1.5 mm² (flexible).



Socket

- For mounting on support rails TS 35/7.5 and TS 35/15 to EN 60 715
- Screw terminals uniformly from one side
- Enclosure width 45 mm

Technical specifications:

Rated voltage: 250 V AC
Rated current (DC/AC): 10 A/16 A

Material:

Polyamide

Colour:

Grey

Standards:

DIN VDE 0620-1
DIN 49 440-1

Design	Packs of	Model No. SZ
Germany	2	2506.100



Service socket

for enclosure frame attachment

Integration of a service socket within a separate supply circuit, independently of the IT network and UPS.

Simple installation via an angle bracket for attaching to the enclosure frame.

Material:

Angle bracket:
Sheet steel, zinc-plated, passivated.
Socket: Plastic

Supply includes:

Angle bracket, damp-proof socket (IP 44), including assembly parts.



Packs of	Model No. DK
1 set	7280.100



Socket strip

with three sockets, overvoltage protection and interference suppression filter

For connecting

- PC
- Monitor
- Printer

Attached to the horizontal or vertical TS enclosure section using the supplied mounting bracket. Socket inserts rotated through 45°. Connection socket for power infeed.

Technical specifications:

Rated voltage: 230 V AC
Rated current: 16 A
Sockets: DIN VDE 0620-1
Overvoltage protection for low voltage:
DIN EN 61 643-11 (VDE 0660 part 6-11)
EMC interference suppression filter: EN 133 200

Material:

Extruded aluminium section natural-anodised, socket inserts polycarbonate

Supply includes:

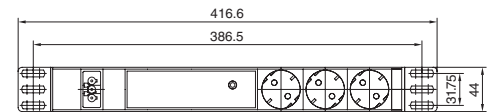
Two mounting brackets and assembly parts.

Number of sockets	Model No. SM
3	6446.500



Also required:

Connection cable for infeed, see page 1030.



Socket strip IW

For mounting on IW worktops or other surfaces via integrated wire clamps or by screw-fastening from above.

Connection of worktop light IW 6903.080 via the connector integrated into the socket strip at the side.

Material/Surface finish:

Extruded aluminium section, natural-anodised, socket strips and side section cover black plastic

Supply includes:

Assembly parts.

Technical specifications:

Rated voltage: 230 V AC
Rated current: 16 A
Connection cable: 2.5 m long H05VV-F
3G1.5 mm²



Dimensions in mm	Model No. IW
340 x 88 x 72	6902.040

Design:

3 earthing-pin sockets, rotated 35°, 1 rocker switch for power supply to sockets, 1 jack on the left-hand side for through-wiring connection cable (e.g. for connecting a worktop light IW 6903.080, see page 189) with 1 rocker switch for power supply to jack.



Accessories:

Through-wiring connection cable, see page 1030.
Workstation light IW 6903.080, see page 189.

Voltage supply

Energy-Box



Energy-Box, 482.6 mm (19")

Technical specifications:

A depth-variable top hat rail for installed equipment to DIN 43 880, sizes 1 – 3 (e.g. to accommodate built-in sockets, miniature circuit-breakers etc.). Cable clamping at the rear, one N and one PE rail on an insulated plinth. Plastic cover including extension cover (UL 94-V0), maximum accommodation of 22 installed devices (width 18 mm). Maximum accommodation capacity = 22 HP (22 x 18 mm = 396 mm).

Packs of	U	Model No. DK
1	3	7480.035

Colour:
RAL 7035

Supply includes:
Energy-Box with plastic blanking covers.

Note:
Individual population with circuit-breakers at the factory available on request.

German patent no. 42 00 836



Energy-Box, 482.6 mm (19"), pull-out

This Energy-Box is designed to accommodate both DC and AC components. The pull-out component front affords optimum access to the wiring space from above and below.

Connection clamps
for DC current:
2 clamps 35 mm²,
9 clamps 16 mm² (per rail)

for AC current:
1 clamp 16 mm² (PE or N),
20 clamps 4 mm² (per rail)

Technical specifications:

Depth-adjustable top hat rail for snap-in attachment of installed equipment to DIN 43 880 in sizes 1 – 3 (e.g. to accommodate built-in sockets, miniature circuit-breakers etc. or entire installation assemblies such as the ABB "smisline" system). Cable clamping at the rear, two power distribution rails with connection clamps on isolated base/plinth. Plastic cover including extension cover, maximum accommodation of 22 items of installed equipment (width 18 mm). Maximum accommodation capacity = 22 HP (22 x 18 mm = 396 mm). Depth: 220 mm.

U	Model No. DK
3	7480.300

Colour:
RAL 7035

Supply includes:
Energy-Box with plastic blanking covers.



Cable entry plates

For

- Cable entry grommets
 - Connector grommets
- instead of segments of the standard divided gland plates.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.

For installation in TS and PC enclosures based on TS

Enclosure width mm	Cut-outs per plate	Packs of	Model No. TS
600	5	2	8800.060
800	8	2	8800.080
850	9	2	8800.085
1000	4	4	8800.100
1200	6	4	8800.120

For installation in CM enclosures and TP TopConsole system

Enclosure width mm	Cut-outs per plate	Packs of	Model No. CM
600	5	1	5001.226
800	8	1	5001.227
1000	4	1	5001.228
1200	6	1	5001.229
1600	8	1	5001.237

For installation in ES, PC enclosures based on ES and in AP universal console, CS basic enclosure

Enclosure width mm	Cut-outs per plate	Packs of ¹⁾	Model No. TS
600	5	2	4320.700
800	8	2	4321.700
1000	10	2	4323.700
1200 ²⁾	6	4	4325.700

¹⁾ Including compensating plate

²⁾ For CS basic enclosures, two TS 4320.700 are required.

For TS stainless steel

Material:

Stainless steel 1.4301 (AISI 304)

For installation in TS, stainless steel

Enclosure width mm	Cut-outs per plate	Packs of	Model No. TS
600	5	2	8700.600
800	8	2	8700.800
1200	6	4	8700.120



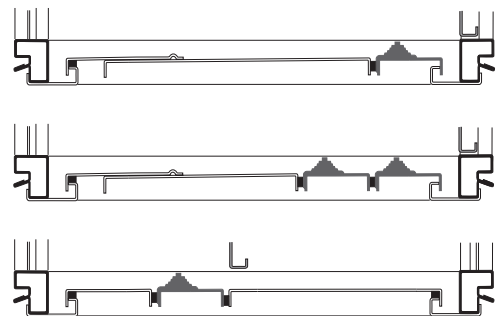
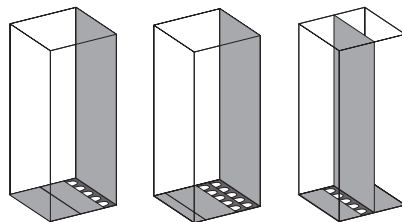
Accessories:

Cable entry grommets, see page 1046.

Three examples from a wide range of possibilities

The diagrams show three TS examples for the positioning of cable entry plates instead of segments of the three-piece gland plates supplied as standard. This facilitates positioning to fit the mounting plate.

Thanks to the enclosure symmetry, where dimensions permit, cable entry plates may also be inserted in the enclosure depth, right and left, analogous to the gland plates.



Cable management

Cable entry



Cable entry grommets

In conjunction with the cable entry plate, simple and fast sealing of cables inserted in the base area of enclosures.

Material:

Body: Polypropylene
Cover: Thermoplastic elastomer

Protection category:

IP 55 subject to correct mounting.

Cables per grommet	Max. Ø mm	Packs of	Model No. PS
8	13	25	4316.000
3	21	25	4317.000
1	47	25	4318.000

German patent no. 42 07 281
European patent no. 0560119
with validity for FR, GB, IT, NL
Japan. patent no. 2533052
US patent no. 5,422,436



Connector grommets

Suitable for cable diameters from 8 to 36 mm.

Material:

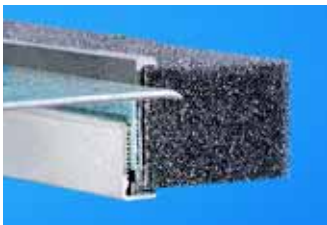
Outer cover: Polypropylene covered with thermoplastic elastomer
Seal: Cellular rubber

Protection category:

IP 55 subject to correct mounting.

Packs of	Model No. PS
10	4311.000

German patent no. 44 05 328
Italian patent no. 0 127 3503
French patent no. 2 716 583



Section for cable entry, centre for TS, CM, TP, FR(i)

For top-mounting on gland plates. A superior alternative to the foam rubber cable clamp strip, thanks to:

- Easier mounting
- Full-surface support
- High level of sealing of cables inserted into the enclosure

Material:

Extruded aluminium section, seal PU foam, cross-section: 30 x 25 mm

Protection category:

IP 55 subject to correct mounting.

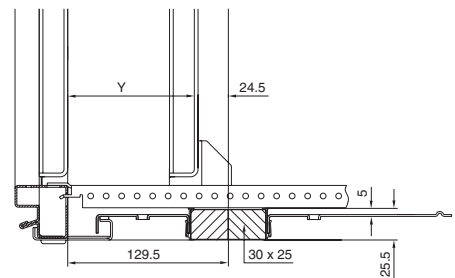
Note:

1 set is sufficient for one base opening up to an enclosure width of 800 mm. From an enclosure width of 1000 mm, two base openings are provided. 2 sets per enclosure may be fitted.

For enclosure width mm	Packs of	Model No. TS
600	1 set	8802.060
800	1 set	8802.080
1000	2 sets	8802.100
1200	2 sets	8802.120
1600	2 sets	8802.160

+ **Accessories:**

Cable clamp rail (right angle section), see page 1061.
C rail, see page 999.



Y = Mounting plate depth-adjustable on a 25 mm pitch pattern (final pitch 30 mm).



Section for cable entry, rear for TS, CM, TP, FR(i)

Unlike the section for cable entry, centre, the rear section is mounted directly onto the base opening. In this way, when installing the mounting plate in the rearmost position (TS) or with CM, the cables may be routed directly on a cable clamping rail with no large radii. In conjunction with the cable clamp rail, optimum adjustment between the cable entry and mounting plate can be achieved.

Material:

Extruded aluminium section,
seal PU foam, cross-section: 30 x 25 mm

Protection category:

IP 55 subject to correct mounting.

For enclosure width mm	Packs of	Model No. TS
600	1 set	8802.065
800	1 set	8802.085
1000	2 sets	8802.105
1200	2 sets	8802.125
1600	2 sets	8802.165

Note:

1 set is sufficient for one base opening up to an enclosure width of 800 mm. From an enclosure width of 1000 mm, two base openings are provided. 2 sets per enclosure may be fitted.



Accessories:

Cable clamp rail,
see page 1062.



Foam rubber cable clamp strip

For sealing the cable entry between the gland plates. Particularly suitable for identical cable cross-sections.

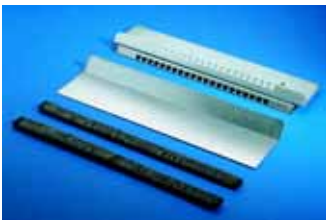
Material:

PU foam,
cross-section: 30 x 30 mm

Protection category:

IP 55 subject to correct mounting.

Packs of	Model No. SZ
3 m	2573.000



EMC gland plates

see page 1032.

Cable management

Gland plates



Plastic cable gland plates

With pre-punched PG holes for cable glands.
Used for sealing standard gland plates.
Temperature range:
suitable for use from -40°C to $+70^{\circ}\text{C}$.

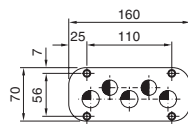
Colour:
RAL 7035

Note:
The applicable size can be taken from the respective product ordering page.

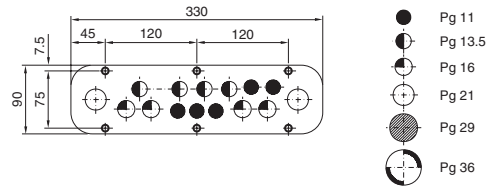
Size	Packs of	Model No. SZ
1	10	2560.000
3	10	2561.000
4	5	2562.000
5	5	2563.000

To order the version with knockouts for metric cable glands, please add extension .010 to the model no.

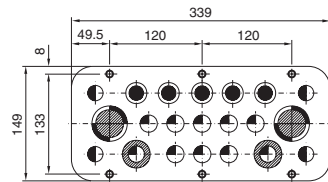
Size 1



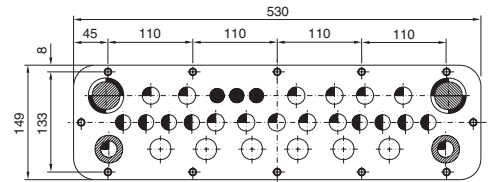
Size 3



Size 4



Size 5



Plastic cable gland plates

With pre-punched PG holes for cable glands.
Used for sealing standard gland plates.
Temperature range:
suitable for use from -40°C to $+70^{\circ}\text{C}$.

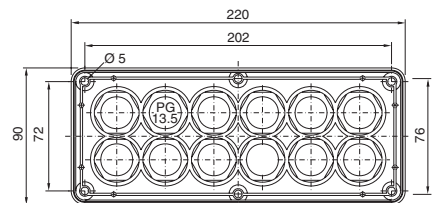
Material:
ABS

Colour:
RAL 7035

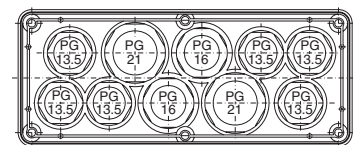
Note:
The applicable size can be taken from the respective product ordering page.

Size	PG	Qty.	Packs of	Model No. KL
2	13.5	12	5	1581.000
	13.5	6	5	1582.000
	16	2		
	21	2		

KL 1581.000



KL 1582.000





Plastic gland plates

with membranes

Simply pierce the plastic with a sharp object, and pull through the cable.

Material:

Plastic to UL 94-V2

Colour:

Similar to RAL 7035

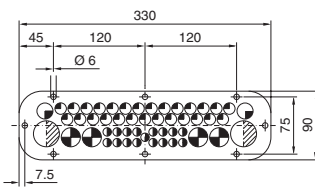
Protection category:

IP 65 with careful cable entry.

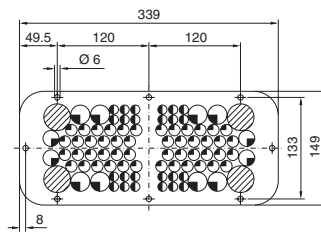
Note:

The applicable size can be taken from the respective product ordering page.

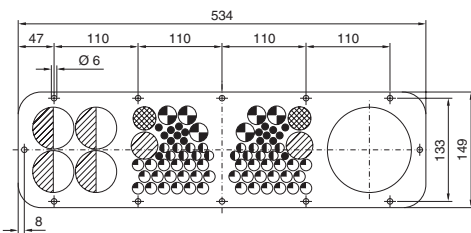
Size 3



Size 4



Size 5



Size	Packs of	Model No. SZ
3	1	2561.500
4	1	2562.500
5	1	2563.500

	Diameter mm	Number of cable entries for Model No. SZ		
		2561.500	2562.500	2563.500
●	5 – 9	–	–	18
◐	6 – 11	17	–	–
◑	7 – 12	–	24	16
◒	10 – 15	27	48	36
◓	15 – 21	2	4	–
◔	15 – 24	–	–	6
◕	15 – 25	–	8	–
◖	16 – 25	4	–	–
◗	19 – 34	2	–	–
◘	23 – 30	–	–	2
◙	26 – 35	–	4	2
◚	26 – 54	–	–	4
○	50 – 110	–	–	1



Metal gland plates

Pre-punched

Simply knock out the holes for the cable glands using a screwdriver.

Material:

Sheet steel

Colour:

RAL 7035

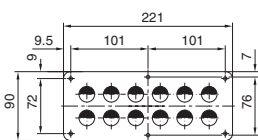
Protection category:

IP 66 when mounting in the usual bottom position.

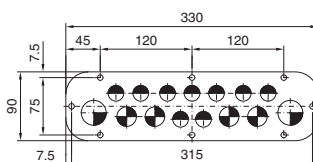
Note:

The applicable size can be taken from the respective product ordering page.

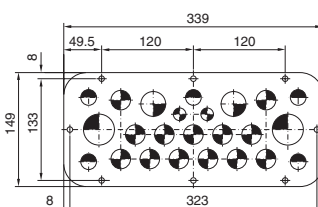
Size 2



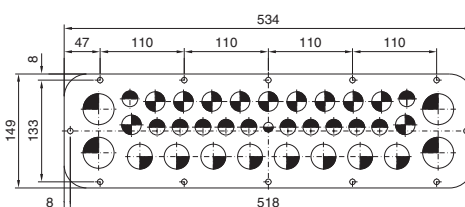
Size 3



Size 4



Size 5



Size	Packs of	Model No. SZ
2	1	1581.100
3	1	2561.100
4	1	2562.100
5	1	2563.100

Number of cable entries

Diameter						Model No. SZ
M12	M16	M20	M25	M32	M40	
–	–	12	–	–	–	1581.100
–	–	9	4	2	–	2561.100
–	2	5	13	2	2	2562.100
1	–	12	11	8	4	2563.100

Accessories:

Cable glands made from polyamide or brass, see page 1054.

Cable management

Gland plates



Metal gland plates

As a spare/replacement part for gland plates supplied loose as standard, or for first-time installation of RiLAN industrial distributors.

Material:
Sheet steel

Colour:
RAL 7035

Protection category:
IP 66 when mounting in the usual bottom position.

Note:
The applicable size can be taken from the respective product ordering page.

+ Accessories:

Cable glands made from polyamide or brass, see page 1054.

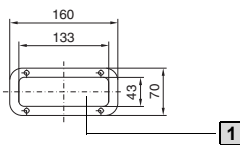
✍ Rittal service:

Cut-outs according to customer specifications.

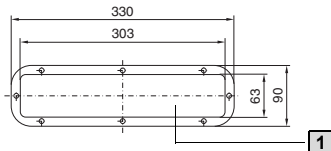
Size	Design	Packs of	Model No. SZ/IN
1	Solid	1	2560.400
3	Solid	1	2561.400
4	Solid	1	2562.400
5	Solid	1	2563.150
	Pre-punched 27 x M20	1	2203.010
	With 27 cable glands M20	1	2203.020¹⁾
6	Solid	1	2207.010
	Pre-punched 27 x M20	1	2207.020
	With 27 cable glands M20	1	2207.030¹⁾

¹⁾ Any cable glands that are not required must be sealed with sealing bungs SZ 2411.532 (see page 1055).

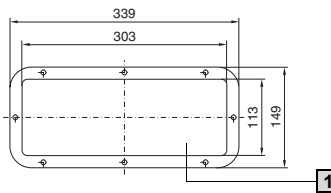
SZ 2560.400



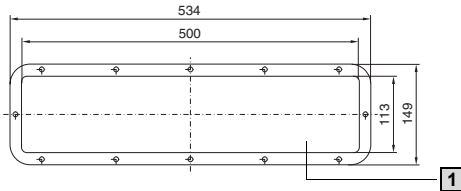
SZ 2561.400



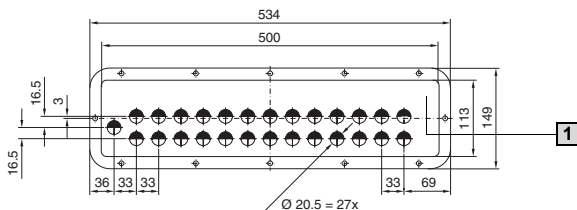
SZ 2562.400



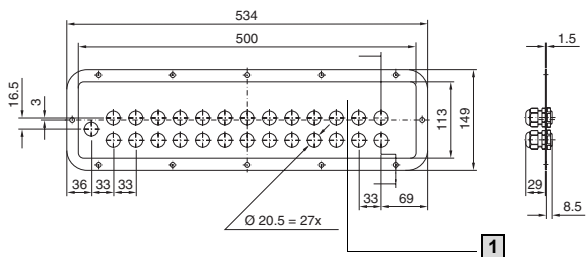
SZ 2563.150



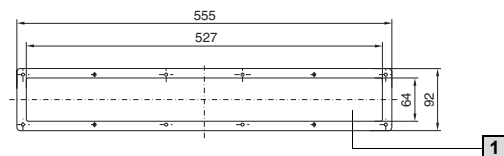
IN 2203.010



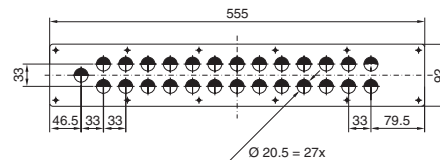
IN 2203.020



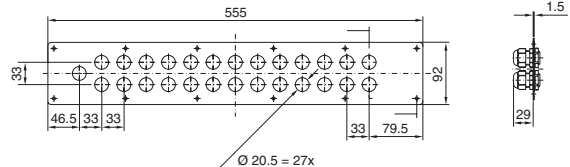
IN 2207.010



IN 2207.020



IN 2207.030



● Knock-out Ø M20

⊙ Cable gland Ø M20

1 Area available for population



Metal gland plate with grommets

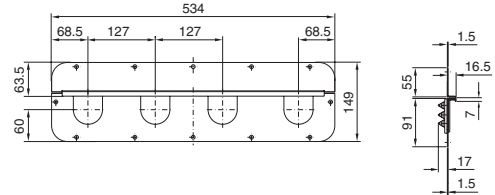
Design:
4 inserts each with 8 grommets for cable diameters up to 13 mm.

Material:
Gland plate: Sheet steel, zinc-plated, passivated,
Cable entry grommet: Polypropylene.
Body: Polypropylene.
Cover: Thermoplastic elastomer.

Note:
The applicable size can be taken from the respective product ordering page.

Size	Dimensions	Packs of	Model No. IN
5	534 x 149 mm	1	2203.030

Protection category:
IP 54 to EN 60 529/09.2000 when mounted in the usual position, bottom.



Metal gland plates

Material:
Sheet steel, spray-finished

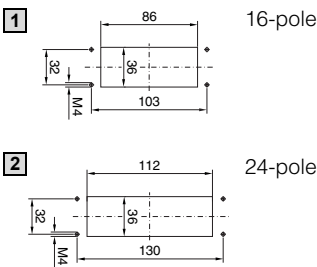
Colour:
RAL 7035

Note:
The applicable size can be taken from the respective product ordering page.

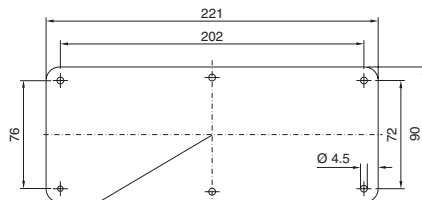
Size	Cut-out	Packs of	Model No. KL
2	Without	6	1158.500
2	1 x connector, 16-pole	6	1158.560
2	1 x connector, 24-pole	6	1158.540
2	3 x module plates	6	1158.530

+ Accessories:

Module plates for individual cable entry, see page 1051.



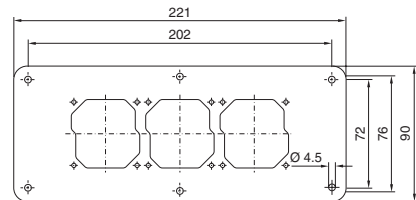
KL 1158.500



1 KL 1158.560

2 KL 1158.540

KL 1158.530



Module plates for individual cable entry

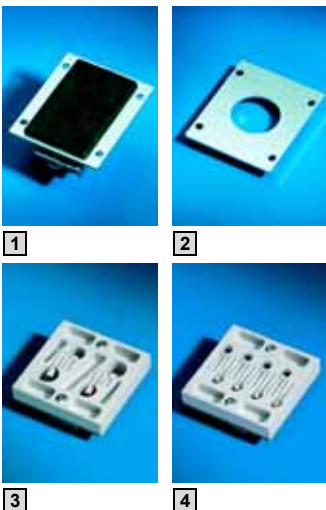


Fig.	Design	Material	Packs of	Model No. BG
1	With connector grommet for 2 cables with connectors up to d = 8.5 mm	Module plate: Sheet steel, zinc-plated, passivated Connector gland: (For details, see SZ 2400.300, page 1057)	1	1158.900
2	Punched for metric cable gland	M25	10	1158.910
	Solid	Sheet steel, zinc-plated, passivated		1158.930
3	For direct, IP-protected insertion of sensor/ actuator cables	2 + 2 ¹⁾	1	1158.940
4		8 ²⁾		1158.950

To fit Ø
1) 2 cables from 6.8 to 8.8 mm and 2 cables from 7.8 to 10.7 mm
2) 8 cables from 3.8 to 6.3 mm

Cable management

Gland plates



Gland plate

solid, for QuickBox

To conceal the cable entry openings. In exchange for the brush strip at the top and bottom that is used as standard.

Material:
Sheet steel

Colour:
RAL 7035

Supply includes:
Assembly parts.

Packs of	Model No. QB
2	7502.310



Gland plate

for metric cable glands, for EL

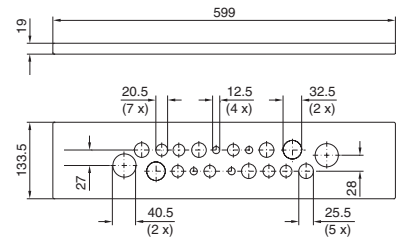
Folded gland plate with foamed-in seal and pre-punched, knock-out holes for metric cable glands M12, M20, M25, M32, M40.

Material:
1.5 mm sheet steel

Colour:
RAL 7035

Protection category:
IP 55 to EN 60 529/09.2000

Packs of	Model No. DK
1	7705.235



Gland plate

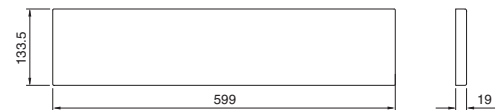
solid, for EL

Folded gland plate for the base box, with foamed-in seal.

Material:
1.5 mm sheet steel

Colour:
RAL 7035

Packs of	Model No. EL
1	2235.135



Gland plates



Gland plate

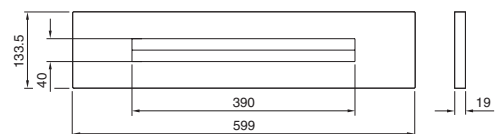
with brush insert, for EL

Folded gland plate with foamed-in seal and plastic brush inserts for simple cable entry.

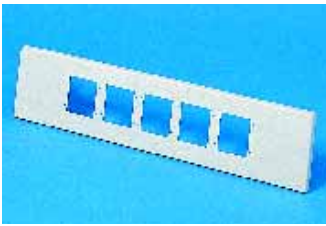
Material:
1.5 mm sheet steel

Colour:
RAL 7035

Packs of	Model No. DK
1	7705.035



B
7.8



Gland plate

for PG segments, for EL

Folded gland plate with foamed-in seal and cut-outs for PG segments.

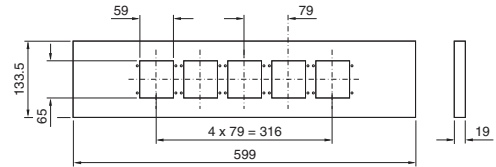
Material:

1.5 mm sheet steel

Colour:

RAL 7035

Packs of	Model No. EL
1	2235.005



PG segments

for EL

Plastic segments with pre-punched, knock-out holes for cable glands. Suitable for retrospective screw-fastening to gland plate EL 2235.005.

Material:

ABS, self-extinguishing to UL 94-V0

Colour:

RAL 7035

PG sizes	Packs of	Model No. EL
29	5	2235.015
21	5	2235.025
21/11	5	2235.035
16	5	2235.045
16/13.5	5	2235.055
13.5	5	2235.065
11	5	2235.075
neutral	5	2235.085

EL 2235.015	EL 2235.025	EL 2235.035	EL 2235.045	EL 2235.055	EL 2235.065	EL 2235.075	EL 2235.085



Brush strip

For individual installation of enclosure panels, gland plates and panels. Cut-outs for cable routing at any given positions in the side panel, rear panel, doors, roof and gland plate may be finished off attractively by simply attaching the brush strip.

Packs of	Model No. DK
2 m	7072.200

Technical specifications:

Bristle length: 30 mm
 Plastic sheathing: 18 mm
 Surface available for top-mounting: 10 mm
 Maximum cut-out height: 38 mm
 For metal thickness: 1.5 – 2 mm



Brush strip, super-airtight

For individual installation of enclosure panels, gland plates and panels. Cut-outs for cable routing at any position in the side panel, rear panel, doors, roof and base plate.

These special brush strips may be used to create airtight entries for cable sections and conductors. The brush strips arranged in an offset configuration ensure good sealing from the routed cables even with large quantities of cables. In this way, unwanted system losses may be reduced to a minimum.

Packs of	Model No. DK
2 x 1 m	7825.375

Material:

Brush strip: Plastic, UL 94-V0

Supply includes:

1 brush strip each,
 1 m in length, right-hand and left-hand version.

Technical specifications:

For metal thickness: 1.5 – 2 mm
 Bristle length: 51 mm
 Plastic sheathing: 14 mm
 Surface available for top-mounting: 11.5 mm
 Maximum cut-out width: 88 – 90 mm

Cable management

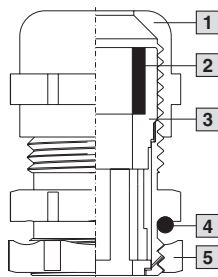
Cable gland



Cable gland, brass

Benefits:

- Because the gland and lock nut are sold together in a single pack, this saves additional ordering and storage.
- Clamping membranes for even tightening and strain relief which protects the cables.
- Insulation via plastic insert.
- Optimum seal on the connection thread, thanks to O-ring.
- The lock nut cuts automatically into the spray-finish, thereby creating a conductive connection.



- 1 Top-hat nut
- 2 Neoprene seal
- 3 Plastic insert
- 4 O-ring
- 5 Lock nut

 **Possible alternative:**

Cable gland Hygienic Design, see page 1056.

Size	Cable diameter mm	Packs of	Model No. SZ
M12 x 1.5	3 – 6.5	15	2411.800
M16 x 1.5	4.5 – 10	15	2411.810
M20 x 1.5	6 – 12	10	2411.820
M25 x 1.5	11 – 17	10	2411.830
M32 x 1.5	15 – 21	5	2411.840
M40 x 1.5	19 – 28	4	2411.850
M50 x 1.5	27 – 38	2	2411.860
M63 x 1.5	34 – 44	1	2411.870

Material:

Nickel-plated brass, neoprene seal

Protection category:

IP 68 (5 bar, 30 min.) to EN 60 529/09.2000

IP 69K to DIN 40 050-9

Approval:

VDE tested to EN 50 262



Accessories:

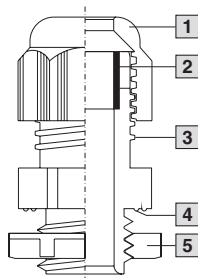
Sealing bungs, see page 1055.
Multi-seal inserts, see page 1055.



Cable gland, polyamide

Benefits:

- Because the gland and lock nut are sold together in a single pack, this saves additional ordering and storage.
- Clamping membranes for even tightening and strain relief which protects the cables.
- Spray-moulded sealing lip ensures an optimum seal against the enclosure.
- Trapezoid thread for secure screw-fastening of the cap nut.



- 1 Cap nut
- 2 Neoprene seal
- 3 Trapezoid thread
- 4 Sealing lip
- 5 Lock nut

Size	Cable diameter mm	Packs of	Model No. SZ
M12 x 1.5	3 – 6.5	50	2411.600
M16 x 1.5	4.5 – 10	50	2411.610
M20 x 1.5	6 – 12	50	2411.620
M25 x 1.5	11 – 17	25	2411.630
M32 x 1.5	15 – 21	15	2411.640
M40 x 1.5	19 – 28	5	2411.650
M50 x 1.5	27 – 38	5	2411.660
M63 x 1.5	34 – 44	3	2411.670

Material:

Polyamide 6, neoprene seal

Colour:

RAL 7035

Protection category:

IP 68 (5 bar, 30 min.) to EN 60 529/09.2000

IP 69K to DIN 40 050-9 (except SZ 2411.660 and SZ 2411.670)

Approval:

VDE-tested to EN 50 262

CSA for USA and Canada



Accessories:

Polyamide reducers, see page 1055.
Sealing bungs, see page 1055.
Multi-seal inserts, see page 1055.



Polyamide reducers

for polyamide cable glands

For adapting metric cable glands to larger diameter holes or threads.

Advantage:

Reducer and locking nut are sold together in a single pack; this saves additional ordering and storage.

Material:

Polyamide 6 GF30

Colour:

RAL 7035

Note:

Polyamide cable gland, see page 1054.



Thread

Exterior	Inside	Packs of	Model No. SZ
M16 x 1.5	M12 x 1.5	50	2411.550
M20 x 1.5	M12 x 1.5	50	2411.551
M20 x 1.5	M16 x 1.5	50	2411.552
M25 x 1.5	M16 x 1.5	50	2411.553
M25 x 1.5	M20 x 1.5	50	2411.554
M32 x 1.5	M16 x 1.5	50	2411.555
M32 x 1.5	M20 x 1.5	50	2411.556
M32 x 1.5	M25 x 1.5	50	2411.557
M40 x 1.5	M25 x 1.5	25	2411.558
M40 x 1.5	M32 x 1.5	25	2411.559
M50 x 1.5	M40 x 1.5	5	2411.560
M63 x 1.5	M40 x 1.5	5	2411.561
M63 x 1.5	M50 x 1.5	5	2411.562



Sealing bung

for cable glands M20 x 1.5

For use in all situations where preinstalled cable glands M20 x 1.5 must be kept free for future installations but properly sealed. Simply loosen the cap nut, mount the sealing bung, and retighten.

Packs of	Model No. SZ
25	2411.532

Material:

Polyamide 6

Colour:

RAL 7035



Multi-seal inserts

For the secure entry of several individual cables into a single cable gland.

Material:

Neoprene

Size	Cable diameter mm	Number of cables	Packs of	Model No. SZ
M20	3	4	25	2411.500
	4	3	25	2411.501
	5	3	25	2411.502
	6	2	25	2411.503
M25	3	7	25	2411.504
	4	6	25	2411.505
	5	4	25	2411.506
M32	6	3	25	2411.507
	3	9	25	2411.508
	4	9	25	2411.509
	5	6	25	2411.510
	6	6	25	2411.511



Stoppers

For the reliable sealing of unused cable entries. Simply insert into the multi-seal inserts instead of a cable, and clamp via the cable gland. Length 14 mm.

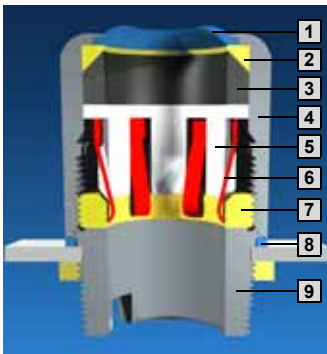
Material:

Polyamide 6

Diameter mm	Packs of	Model No. SZ
3	25	2411.520
4	25	2411.521
5	25	2411.522
6	25	2411.523

Cable management

Cable gland



- 1 External cable seal
- 2 Compression ring
- 3 Internal cable seal
- 4 Cap nut
- 5 Gripper jaws
- 6 Shield spring (EMC version only)
- 7 Clamping ring
- 8 Enclosure seal
- 9 Base with locator for assembly tool

Stainless steel cable gland, Hygienic Design

Suitable for use in the following areas

- Manufacturing and packaging of foodstuffs etc.
- Clean room technology (e.g. pharmaceuticals)
- Biotechnology
- Chemical industry

Benefits:

- Smooth, solid exterior surfaces effectively prevent the depositing of harmful micro-organisms. All threads are beneath the cap nut.
- Much easier, therefore cheaper, cleaning compared with conventional stainless steel cable glands.
- Reliable strain relief, thanks to duplicate cable attachment.
- Resistant to high-pressure cleaning (protection category IP 69K).

Material:

Cap nut: Stainless steel 1.4305 (AISI 303)
External seals: Made from FDA-approved material

Protection category:

IP 68 (5 bar, 30 min.) to EN 60 529/09.2000
IP 69K to DIN 40 050-9

Standard version

Size	Cable diameter mm	Packs of	Model No. HD
M12 x 1.5	3 – 6.5	5	2410.000
M16 x 1.5	4.5 – 10	5	2410.010
M20 x 1.5	6 – 12	5	2410.020
M25 x 1.5	11 – 17	5	2410.030

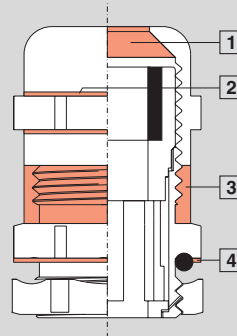
EMC version

Size	Cable diameter mm	Packs of	Model No. HD
M16 x 1.5	4.5 – 10	5	2410.110
M20 x 1.5	6 – 12	5	2410.120
M25 x 1.5	11 – 17	5	2410.130

Why hygiene-compatible cable glands?

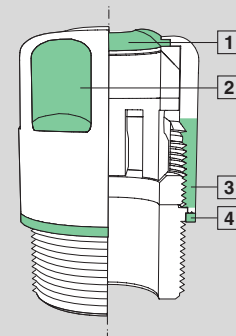
Critical points with conventional solutions

- 1 Cable entry in front of seal
- 2 No minimum radii on the hexagon
- 3 External thread
- 4 Gap caused by O-ring on the enclosure surface



Hygiene-compatible design features

- 1 Seal directly at the cable entry
- 2 Compliance with minimum radii on the hexagon
- 3 No external thread
- 4 Flush termination between the cap nut and the enclosure



Cable gland



Stainless steel lock nut

To fit the stainless steel Hygienic Design cable glands.

Material:

Stainless steel 1.4305 (AISI 303)

Size	Packs of	Model No. HD
M12 x 1.5	10	2410.200
M16 x 1.5	10	2410.210
M20 x 1.5	10	2410.220
M25 x 1.5	10	2410.230

Assembly tool

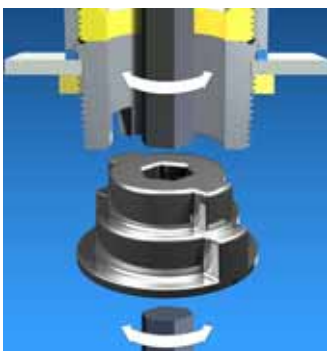
for cable gland, stainless steel Hygienic Design

For attaching a stainless steel Hygienic Design cable gland to an external thread or via locking nuts. This can be achieved either from the inside or from the outside using an Allen key.

Supply includes:

1 set =
adaptor for sizes from M12 – M25.

Packs of	Model No. HD
1 set	2410.290



B
7.8



Connector gland

for connector cut-outs (24-pole)

For the entry of 2 pre-assembled cables in the connector cut-out, without dismantling the connector.
For cable diameter from 8 – 36 mm.

Packs of	Model No. SZ
1 set	2400.000

Material:

Plastic
Clamp terminals:
Sheet steel, zinc-plated, passivated

Supply includes:

1 set =
2 half-shells, including seals,
with fastening clamp.



Connector gland

For pre-assembled cables with connectors.

- For material thickness of up to 4 mm.
- Strain relief of the pre-assembled cables can be achieved with cable ties.

Material:

Plastic

Colour:

RAL 9005

Protection category:

IP 65 subject to correct mounting.

Supply includes:

Assembly parts.

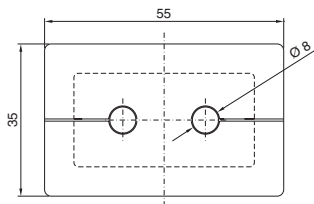
To fit	Packs of	Model No. SZ
2 cables Ø 6 to Ø 8 mm	1	2400.300
3 cables Ø 4 to Ø 6 mm	5	2400.500

German patent no. 199 08 657

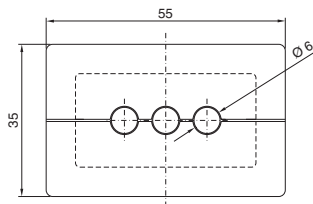


Rittal service:

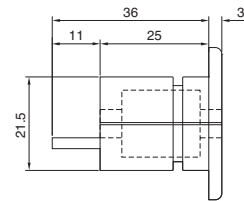
The cut-outs may be made by our service centres.



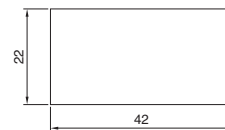
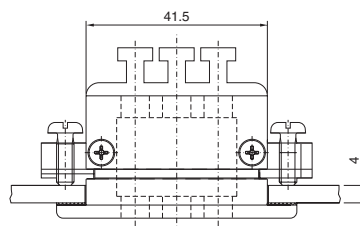
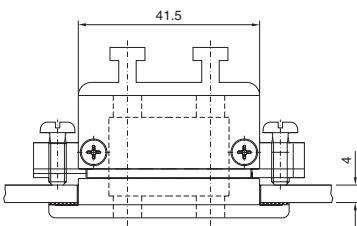
SZ 2400.300



SZ 2400.500



Mounting cut-out



Adaptor plate

for connector entry

To fit

- IW worktop, prepared for turntable or enclosure attachment
- Operating housing with mounting cut-out CPL, round
- Surfaces
With 4 studs M6 x 45 mm.

Material:

Sheet steel, zinc-plated, passivated.

Supply includes:

Seal and assembly parts.

Packs of	Model No. IW
1	6902.660

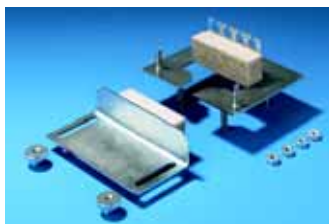


Also required:

Connector grommet
SZ 2400.300 or SZ 2400.500,
see page 1057.

Cable management

Cable gland



Cable gland module

CP-L, Ø 130 mm

Use of the support arm cut-out CP-L, round, with enclosures mounted on the wall, for sealed cable entry. May also be mounted retrospectively with the cables already inserted.

Fitted with T-heads for cable clamping. Particularly well-suited to cables with identical cross-sections.

Material:

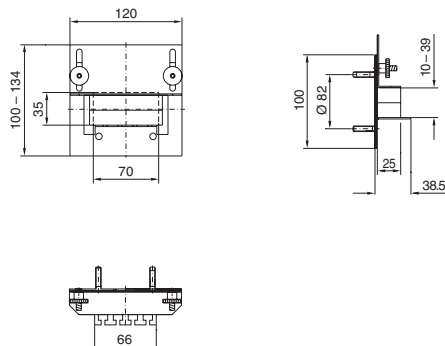
Sheet steel, zinc-plated, passivated.

Supply includes:

Assembly parts.



Packs of	Model No. CP
1	6052.500



Double-membrane gland

for wall thicknesses from 1.5 to 4.5 mm

A high protection category can be achieved with cable entry, thanks to the double seal.

Material:

Plastic to UL 94-HB

Protection category:

IP 66 with careful cable entry.

For hole	Sealing range mm	Packs of	Model No. SZ
M16	5 – 9	50	2898.160
M20	7 – 12	50	2898.200
M25	9 – 16	50	2898.250
M32	14 – 21	25	2898.320



Stepped collar

for wall thicknesses from 1.5 to 4.5 mm

For cable entry, simply cut off at the required level to match the cable diameter.

Material:

Plastic to UL 94-HB

Protection category:

IP 54 with careful cable entry.

For hole	Sealing range mm	Packs of	Model No. SZ
M20	5 – 16	100	2899.200
M25	5 – 21	50	2899.250
M32	13 – 26.5	25	2899.320
M40	13 – 34	20	2899.400

Cable gland



Edge protector

For covering sharp edges of cut-outs. Provides protection from injuries and prevents damage to inserted cables. The edge protector is suitable for material thicknesses of approx. 1.0 – 2.0 mm, and may be cut to length individually.

Material:

Plastic PVC

Colour:

Black

Packs of	Model No. DK
10 m	7072.100

B
7.8



Cable duct for vertical TS section

For direct mounting on the vertical enclosure section.

Width 50 mm

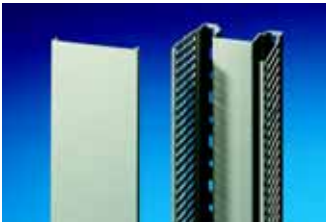
For assembly on a vertical enclosure section in the area of the side panel.

Width 100 mm

For assembly on two bayed enclosure profiles in the baying area. Baying brackets and baying clamps which have already been fitted can be covered over with the cable duct.

The nominal break points of the members are also oriented towards combination with the cable ducts for mounting plates; in addition a further nominal break at the level of the mounting plate enables direct insertion into the cable duct.

The cable duct fastening points are co-ordinated with the TS system hole pattern; elaborate drilling, as in the case of DIN ducts, is dispensed with.



Width mm	Height mm	Packs of	Model No. TS
50	1600	8 sets	8800.570
50	1800	8 sets	8800.520
100	1600	4 sets	8800.540
100	1800	4 sets	8800.510

Technical specifications:

Depth: 80 mm

Length:

- 1600 mm (for enclosure height 1800 mm)
- 1800 mm (for enclosure height 2000 mm)

can be shortened for other enclosure sizes.

Member width: 5.5 mm

Slot width: 4.5 mm

Material:

Hard PVC, flame-resistant, self-extinguishing, temperature-resistant to +60°C

Colour:

Similar to RAL 7030

Supply includes:

1 set =

1 cable duct with cover.



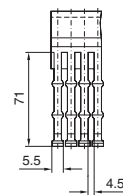
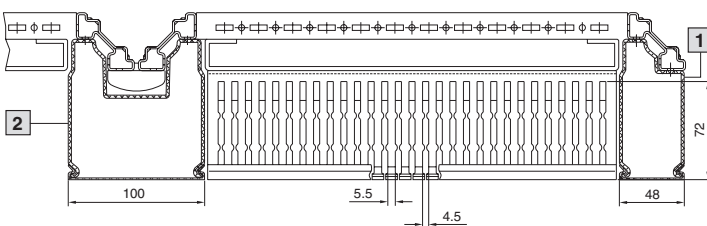
Accessories:

Plastic rivet for attachment,

see page 1060.

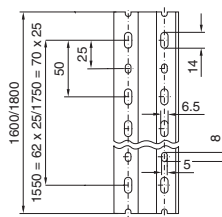
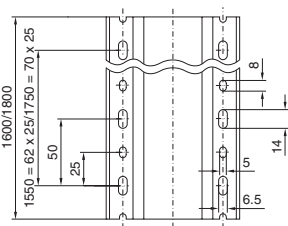
Aluminium rivet for attachment,

see page 1061.



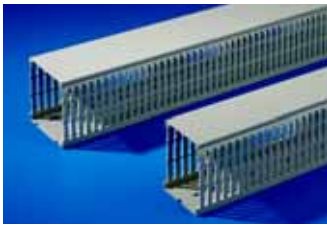
1 TS 8800.570/TS 8800.520

2 TS 8800.540/TS 8800.510



Cable management

Cable routing



Cable duct for mounting plate

- To fit the cable ducts for vertical TS sections. If the TS mounting plate is installed in the rear-most position, the horizontally mounted cable ducts are flush with the vertical ones.
- For external mounting on surfaces.

Technical specifications:

Depth 80 mm

Length:

- Sized to the width of the TS, ES and TP mounting plates
- 2000 mm
- Bar width: 5.5 mm
- Slot width: 4.5 mm

Material:

Hard PVC, flame-resistant, self-extinguishing, temperature-resistant to +60°C

Colour:

Similar to RAL 7030

Supply includes:

1 set =
1 cable duct with cover.

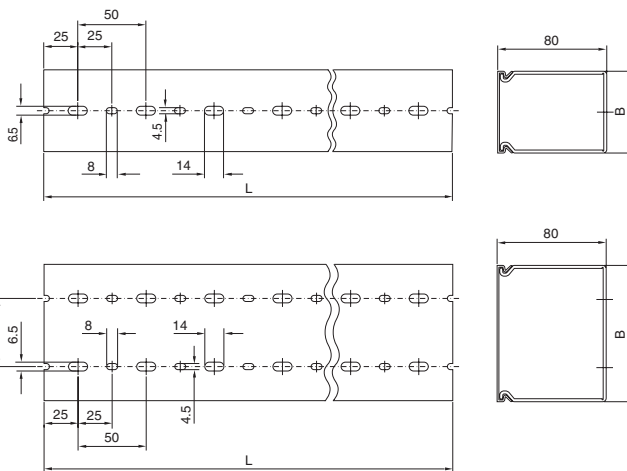


Accessories:

Plastic rivet for attachment, see page 1060.



For enclosure width mm		600	800	1000	1200	Fixed length 2000 mm
Length (L) mm		499	699	899	1099	
Width mm	Packs of	Model No. TS				
30	24 sets	8800.730	8800.735	8800.740	8800.745	8800.750
40	20 sets	8800.731	8800.736	8800.741	8800.746	8800.751
60	18 sets	8800.732	8800.737	8800.742	8800.747	8800.752
80	12 sets	8800.733	8800.738	8800.743	8800.748	8800.753
100	12 sets	8800.734	8800.739	8800.744	8800.749	8800.754



Cable routing



Plastic rivet

Easily mounted with a standard commercially available blind rivet tool.

For fastening the cable ducts in the

- TS system hole pattern
- Drilled hole \varnothing 4.0 mm

Packs of	Model No. TS
100	8800.530

B
7.8



Aluminium rivet

For secure assembly of cable ducts in conformity with the relevant standards. Also suitable for mounting support rails and punched rails. Simple mounting using hand-held rivet tool TS 8800.532.

To fit:

- TS system punchings
- Drilled hole Ø 4.5 mm.

Packs of	Model No. TS
100	8800.531

+ Accessories:

Cable ducts for vertical TS section, see page 1059.
Cable ducts for mounting plate, see page 1060.



Hand-held rivet tool

for aluminium rivets

Reaches even poorly accessible rivet points in narrow or deep cable trunking. In conformity with the standard, the aluminium rivets are made without burrs, sharp edges or rough surfaces.

Packs of	Model No. TS
1	8800.532



Cable clamp rails

Right angle section for TS, ES, PC, AP universal console, base/plinths

For strain relief with cable entry. Depth-variable mounting on a 25 mm pitch pattern on the horizontal enclosure section or in side base/plinth trim panels with assembly bolts.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.

Enclosure width mm	Length mm	Packs of	Model No. PS
400	385	2	4193.000
600	585	2	4191.000
800	785	2	4192.000
850	835	2	4195.000
1000	985	2	4336.000
1200	1185	2	4196.000
1600	1585	2	4338.000
1800	1785	2	4339.000

(may also be used for AP and AE base/plinths)

+ Accessories:

Assembly bolts for base/plinth, see page 896.



Cable clamps

for cable clamp rails

For fastening the cables to the cable clamp rails.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Plastic insert.

For cable diameter mm	Packs of	Model No. SZ
6 – 12	25	2350.000
12 – 16	25	2351.000
14 – 18	25	2352.000
18 – 22	25	2353.000
22 – 26	25	2354.000
26 – 30	25	2355.000
30 – 34	25	2356.000
34 – 38	25	2357.000
38 – 42	25	2358.000
42 – 46	25	2359.000
46 – 50	25	2360.000

⇔ Possible alternative:

Rail for EMC shielding bracket and strain relief, see page 1031.



Cable management

Cable routing



Cable clamp rails

C section for TS, CM, TP

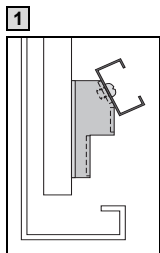
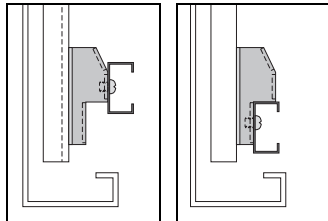
For strain relief with cable entry. The length of the cable clamp rail is tailored to the width of the mounting plate. The mounting bracket included with the supply supports three different installation situations on the mounting plate:

- 1 straight, at a distance of 23 mm from the mounting plate
- 2 straight, at a distance of 10 mm from the mounting plate
- 3 tilted, towards the mounting plate

Material:
Sheet steel

Surface finish:
Zinc-plated, passivated

Supply includes:
Two mounting brackets and assembly screws.



For enclosure width mm	Length mm	Model No. CM
600	499	5001.080
800	699	5001.081
1000	899	5001.082
1200	1099	5001.083
1600	1499	5001.084¹⁾

¹⁾Including 3 mounting brackets.

+ Accessories:

Cable clamps for C rails, see page 1064.



Cable clamping bracket

For installing in the operating housing with mounting cut-out CP-L and CP-XL.

Cable clamping optionally via:

- Cable clamps or
- Cable tie SZ 2597.000
- Commercially available cable ties.

Bracket height = 25 mm with fitted C rail 40 mm.

Material:
Sheet steel, zinc-plated, passivated.

Supply includes:
C rail and screws.



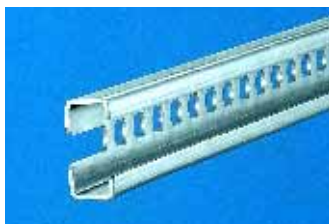
Packs of	Model No. CP
1 set	6052.000

+ Accessories:

Cable clamps, see page 1064.
Cable ties, see page 1066.

C rails

may be found under rail systems from page 999.





Cable clamp rails

see page 1068.



Combination rails

for QuickBox

For cable clamping and routing.

Cables and leads can be fastened to the hammer heads top and bottom with cable ties. In addition, the C section of the combination rail will accommodate cable clamps with inserts. For producing a contacting connection, the anodised coating of the rail must be broken.

Material:

Aluminium, anodised

Supply includes:

Assembly parts.



For enclosure depth mm	Length mm	Packs of	Model No. QB
300/400	200	6	7502.302
500/600	400	6	7502.304

For enclosure width mm	Length mm	Packs of	Model No. QB
600	400	6	7502.304



Accessories:

Cable ties,
see page 1066.
Cable clamps,
see page 1064.



Cascade cable routing

for frame attachment for DK-TS, FR(i)

Professional cable routing system for cascading of cables in several levels of the enclosure depth. The cables are attached to the C rail by means of clamps. Suitable for installation on the inner enclosure level.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

6 mounting brackets and 3 C rails,
including assembly parts.



For enclosure width mm	Packs of	Model No. DK
600	3	7831.570
800	3	7831.571



Accessories:

TS punched section with mounting flange
for the inner mounting level,
see page 993.
PS punched section without mounting flange
for vertical mounting in the enclosure frame,
see page 998.
Cable clamps,
see page 1064.

Cable management

Cable routing



Cable clamps

for C rails

For attaching the cables to the C rails.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Plastic insert.



For cable diameter mm	Packs of	Model No. DK
6 – 14	25	7077.000
12 – 18	25	7078.000
18 – 22	25	7097.000
22 – 26	25	7097.220
26 – 30	25	7097.260
30 – 34	25	7097.300
34 – 38	25	7097.340
38 – 42	25	7098.000
42 – 56	25	7098.100
56 – 64	25	7099.000

+ Accessories:

C rails,
see from page 999.



Cable conduit and cable conduit holder

For secure cable routing e.g. from the enclosure or mounting plate to the door. Attachment facility for standard commercially available cable ties is provided on the cable conduit holder, so that cables may be attached upon entry to/exit from the cable conduit.

Material:

Cable conduit: Polyethylene

Cable conduit holder: Polyamide



Cable conduit

Internal Ø mm	Packs of	Model No. SZ
16	25 m	2595.000
29	25 m	2589.000
36	25 m	2596.000
48	25 m	2590.000

Cable conduit holder

For cable conduit Ø mm	Packs of	Model No. SZ
16	20	2593.000¹⁾
29	20	2591.000¹⁾
36	20	2594.000
48	20	2592.000

¹⁾ Installation in compact enclosures AE with universal bracket SZ 2373.000, see page 1009.



Cable conduit

The stable, robust corrugated tubes ensure secure cable routing between the machine and control console or enclosure.

The split version offers the following benefits:

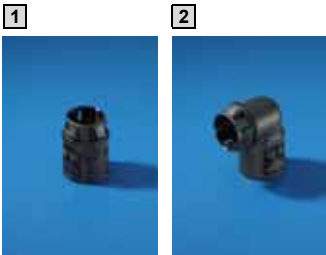
- Problem-free retrospective installation
- Simple insertion of pre-assembled cables
- Faster insertion of cables, particularly with long sections

Material:

Polyamide, self-extinguishing to UL 94

Nominal width	Ø interior in mm	Design	Model No. SZ
50	46	Solid	2589.140
50	43	Split	2589.150
29	27	Solid	2589.100

Packs of 25 m



Connection accessories

for cable conduit

Versions with a nominal width of 29 mm are easily inserted into a through-hole. There is no need for an internal thread or lock nut.

Material:

Polyamide, self-extinguishing to UL 94

Supply includes:

SZ 2589.160/SZ 2589.170:
2 connection glands,
2 hex nuts.

SZ 2589.110/SZ 2589.120:
2 plug-in connections.

Nominal width	Design	Straight	Bracket	Mounting hole Ø in mm	Packs of	Model No. SZ
1 50	Screwed cable gland	■		51	2	2589.160
2 50	Screwed cable gland		■	51	2	2589.170
3 29	Plug-in connection	■		37	2	2589.110
4 29	Plug-in connection		■	37	2	2589.120



Holder

for cable conduit

Material:

Polyamide, self-extinguishing to UL 94

Supply includes:

Support

Note:

Attachment using screws M6 or alternatively screws Ø 5.5 mm, see page 1011.

Nominal width	Packs of	Model No. SZ
50	10	2589.180
29	10	2589.130



Mounting on pedestal CP 6141.100, see page 290



Mounting on Compact Panel CP 6340.000 - .420, see page 231

Cable management

Cable routing



Cable fastening

For professional, secure fastening of cables and conduits.

For fastening:

- Slide into the mounting rail 23 x 23 mm,
- screw-fasten onto the round punchings of the enclosures, as well as all punched rails and punched sections.

As the fastening attachments are bayable, several fastening attachments, even those of different sizes, can be assembled using just 2 screws.

Material:
Polyamide

For cable diameter from – to mm	Packs of	Model No. PS
6 – 9	50	4319.090
9 – 12	50	4319.120
12 – 16	50	4319.160
16 – 20	50	4319.200



Also required:

Posidrive raised countersunk screw M5 x 12 mm, SZ 2488.000, for screw-fastening to the round system punchings, see page 1011.



Accessories:

Punched rail 23 x 23 mm, see page 998.



Cable ties

The super-fast solution for fastening cables to the enclosure profile or mounting system parts. Simply clip into the round system punchings.

Length mm	Packs of	Model No. SZ
150	100	2597.000



Nylon loop

With the nylon loop, secured cables are easily released, allowing individual cables to be added or removed. Ideal for sensitive data cables (fibre-optic/Cu), as it avoids indentations on the cable sheathing.

In addition, the nylon loop may be screw-fastened to the round system punchings or attached using a quick-release fastener.

Colour:
Black

Supply includes:
Nylon loop and quick-release fastener.

Width mm	Length mm	Max. cable diameter mm	Packs of	Model No. DK
20	130	30	10	7072.220
20	200	50	10	7072.230
20	300	90	10	7072.240



Also required:

Screw SZ 2486.500 for screw-fastening to the round system punchings, see page 1011.

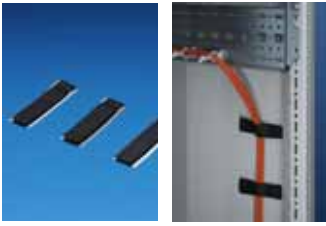


Nylon loop

For tidy cable routing. Supplied on a reel for cutting to the required length.

- Unlike cable ties,
- protects the cable sheathing
 - easily reopened
 - reusable

Length mm	Width mm	Packs of	Model No. IN
5000	16	1	2203.400



Nylon loop cable holder

self-adhesive

Suitable for universal use in all network enclosures and server racks, wall-mounted enclosures, mounting plates and gland plates.

Material:

Woven polyamide 6.6

Colour:

Black

Size length x width mm	Packs of	Model No. DK
70 x 16	10	7111.350



Cable tie fastener

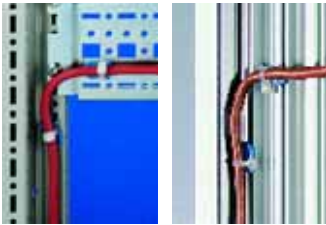
for round system punchings and VIP 6000

For all commercially available cable ties up to a tie width of 4.8 mm.

Simply insert into the round system punchings or into the screw channel, and secure by hammering down the split rivet.

Material:

Polyamide 6.6



Packs of	Model No. CP
100	6059.000



Cable tie fastener

for Comfort Panel, Optipanel and Compact Panel

For secure cable routing of all standard commercially available cable ties up to a tie width of 4.0 mm.

Secured in the T channel by rotating through 45°.

Material:

Polyamide 6.6



Packs of	Model No. CP
100	6059.500



Snap-in cable routing

for clipping into the system punchings.

Cable routing suitable for universal use, for toolless, fast assembly, in two variants:

For locking:

- User-friendly opening for cable management via locating points
- For cable diameters 14 – 19 mm
- For system punchings 6.2 mm

For twisting:

- User-friendly opening for cable management
- For cable diameters 10.2 – 12.7 mm
- For system punchings 4.7 mm

Material:

Polyamide 6.6, self-extinguishing to UL 94 V2

Colour:

Natural



Design	Packs of	Model No. DK
For locking for system punchings 6.2 mm	10	7111.300
For twisting for system punchings 4.7 mm	10	7111.310

Cable management

Cable routing



Cable clamp rails

for TS and 482.6 mm (19") mounting frames
The cables may be attached to the cable clamp rails with cable ties or nylon tapes. The cable clamp rails are simply located onto the frame section and may additionally be secured with a screw.

Material:
Sheet steel, zinc-plated, passivated

Supply includes:
Assembly parts.



Accessories:

Cable ties, see page 1066.
Nylon loop, see page 1066.

For the inner mounting level

For enclosures		Packs of	Model No. DK
Width mm	Depth mm		
600	600	4	7828.061
800	800	4	7828.081
900	900	4	7828.091
1000	1000	4	7828.101
1200	1200	4	7828.121

For the outer mounting level

For enclosures		Packs of	Model No. DK
Width mm	Depth mm		
600	600	4	7828.062
800	800	4	7828.082
900	900	4	7828.092
1000	1000	4	7828.102
1200	1200	4	7828.122



Cable clamp rails, depth-variable

for TS and 482.6 mm (19") mounting frames
For strain relief of the routed cables. The cables may be attached to the cable clamp rails with cable ties or nylon tapes.

The cable clamp rails may be located directly on a 482.6 mm (19") mounting frame horizontally at the rear or in the enclosure depth between two mounting frames. An additional screw-fastening secures the unit.

The depth variability of the rails facilitates flexible adaptation of their length to the existing attachment distance between the two 482.6 mm (19") mounting frames.

Material:
Sheet steel, zinc-plated, passivated

Supply includes:
Assembly parts.

Distance between 19" levels mm	Packs of	Model No. DK
325 – 575	4	7858.160
500 – 895	4	7858.162



Accessories:

Cable ties, see page 1066.
Nylon loop, see page 1066.



Cable clamp, variable

for enclosure-independent mounting

Variable attachment of 450 to 800 mm for flexible cable clamping in two variants.

Supports attachment to punched sections with and without mounting flanges and direct screw-fastening onto mounting plates and other flat surfaces.

Material:
Sheet steel, zinc-plated, passivated

Supply includes:
Assembly parts.

- 1** C rail
- 2** T-head rail

Design	Packs of	Model No. DK
C rail	1	7016.140
T-head rail	1	7016.150



Shunting ring, plastic

For flexible cable routing, in two materials and three size variants.
Option of mounting to the 482.6 mm (19") enclosure and swing frame profile of the data distributor, to the system strips of FM distribution enclosures, to all patch panels, to the Rittal Data Rack and all components on a 25 mm DIN pitch pattern.



Polyamide version:

Infinitely variable mounting thanks to a longitudinal slot. The shunting ring DK 7218.035 may also be used on 1 U patch panels.

Colour:
RAL 7035

Material	Dimensions mm	Packs of	Model No. DK
Polyamide	70 x 44	10	7218.035¹⁾
Polyamide	105 x 70	10	7219.035¹⁾
Polycarbonate	95 x 50	10	7228.035

¹⁾ German patent no. 44 13 124



Polycarbonate version:

Variable mounting. With 45° attachment the cable shunting ring may be attached to a 1 U panel.

Colour:
RAL 7035

Possible alternative:

Cable management panel, 1 U, see page 1076.

Cable shunting ring

For flexible, system-compatible cable routing at the side of the 482.6 mm (19") mounting frame.

Material:
Sheet steel, zinc-plated, passivated

Supply includes:
Assembly parts.



Dimensions mm	Packs of	Model No. DK
125 x 85	10	7111.900
125 x 65	10	7111.000
85 x 43	10	7112.000



Shunting ring

To accommodate large quantities of cables. Shunting ring for side attachment to 482.6 mm (19") sections and mounting frames in 800 mm wide network enclosures. The ring is attached asymmetrically providing approx. 110 mm free space in front of the 482.6 mm (19") level. In this way, even large quantities of cables can be effectively managed.

Material:
Round steel, zinc-plated, passivated

Supply includes:
Assembly parts.



Dimensions mm	Packs of	Model No. DK
330 x 90/70	4	7220.600

Cable management

Cable routing



Cable clamp straps

for patch panels

To provide strain relief of incoming or outgoing data cables. Optionally available with spring brackets for accommodating and contacting the cable screen. Connection to the patch panel is by means of bolts on the panel itself.

Material:

Sheet steel 2 mm, zinc-plated, passivated

Supply includes:

Assembly parts.

Design	Model No. DK
Without cable screen contact	7610.000
With spring clips for contacting the cable screen	7611.000



System supports for cable routes

for TS, FR(i)

The depth-variable support system may be attached to all 800 – 1200 mm deep enclosures and all FR(i) enclosures with external screw-fastening of the roof plate. The integral system punchings, for screws or captive nuts, support the attachment of most common cable route systems.

Material:

Sheet steel

Surface finish:

Powder-coated, RAL 7035

Packs of	Model No. DK
2	7831.472

⊕ Accessories:

Metal multi-tooth screws
5.5 x 13 mm, SZ 2486.500,
see page 1011.
Captive nuts M6, TS 8800.340,
see page 1010.



Cable route on the mounting frame

The mounting kit facilitates rear, side attachment of a cable tray to mounting frames inside enclosure systems TE 7000, TS and FR(i). This allows the integration of vertical cable management independently of the enclosure frame.

Material:

Sheet steel

Packs of	Model No. DK
1 set	7000.685

Surface finish:

Zinc-plated, passivated

Supply includes:

1 cable route 100 mm wide, 1700 mm high, including mounting kit.



Fibre-optic shunting rings

The inner body is grooved, and fibre-optic shunting or jumper cables can be inserted into these. A rubber ring holds different fibre-optic cables with diameters of up to 4.5 mm. Strain relief and bending radius are ensured. Length: 120 mm.

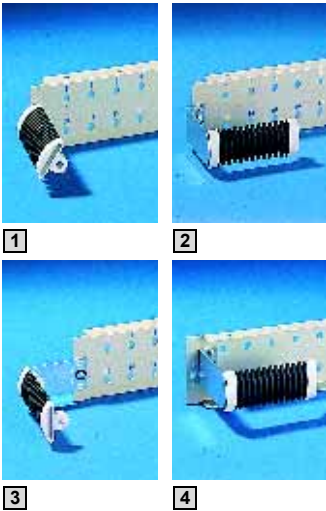
Material:
Dual compound plastic

Colour:
Outside: RAL 7035
Inner body: Black

Supply includes:
2 shunting rings,
2 rubber rings,
baying kit,
including assembly parts.

Assembly:
The supplied mounting brackets are suitable for universal use; the fibre-optic cables can be routed to the patch panel in all directions in various mounting positions:

- 1 At the side, directly on the patch panel
- 2 In front of the patch panel
- 3 At the side next to the patch panel
- 4 Behind the patch panel



Packs of	Model No. DK
2	7116.500

German patent no. 196 48 489
German patent no. 196 48 490

Possible alternative:

Fibre-optic cable management panel, 1 U, see page 1078.

Cable route

for TS
For cable routing between two 482.6 mm (19") mounting angles in bayed enclosure suites (enclosure width 800 mm, mounting angles fitted centrally). Suitable for L-shaped and cranked mounting angles.

Material:
Sheet steel

Colour:
RAL 7035

Supply includes:
Assembly parts.



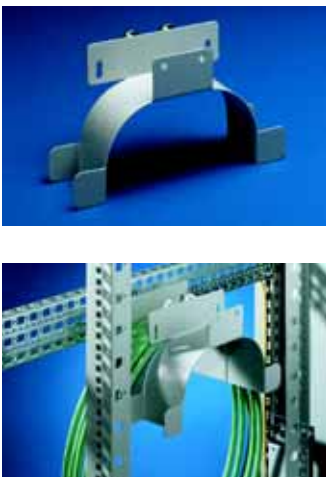
Packs of	Model No. DK
1	7827.050

Surplus cable holder

For fastening at the rear area of the enclosure, or at the side of network enclosures. The surplus cable holder can be attached to all depth stays or to punched sections and rails with a 25 mm pitch pattern – mounting dimension 150 mm. Units may also be fastened to each other.

Material:
Sheet steel

Colour:
RAL 7035



W x H x D mm	Model No. DK
280 x 151 x 75	7220.500

Cable management

Cable routing



Cable management duct

for TS

For side cable routing. The cable management duct is attached to 482.6 mm (19") mounting angles at the sides of the 800 mm wide TS network enclosure. For this purpose, the mounting angles must be mounted on installation brackets. Thanks to the removable front trim panel equipped with quick-release fasteners, cables can also be retrospectively removed or added.

Dimensions:

W x D: 95 x 94 mm

Material:

Sheet steel, spray-finished

Colour:

RAL 7035

Supply includes:

Assembly parts.

U	For enclosure height mm	Model No. DK
31	1600	7827.333
36	1800	7827.338
40	2000	7827.342
45	2200	7827.347



Also required:

Installation brackets TS for mounting angles, see page 1096.



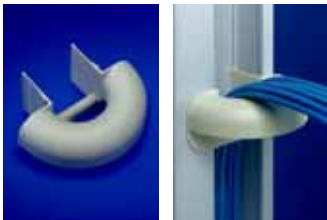
Cable routing components

for FR (i)

For snap-fastening into the vertical frame channel.

Type 1:

With horizontal bar for attaching the cables in the frame channel.



Type 2:

Additionally with semi-circular bead for kink-free cable entry and exit.

Type	Packs of	Model No. DK
1	10	7218.100
2	10	7218.105

Material:

Polycarbonate

Colour:

RAL 7035



Extension kit

horizontal cable management for FR(i)

Allows the enclosure frame to be extended in the depth by approximately 100 mm. The space thereby acquired may be used for horizontal cable management between bayed enclosures.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

1 set =
8 spacer supports, including assembly parts.

Extension kit

Packs of	Model No. FR
1 set	7856.740

Note:

Combination of the extension kit with divided doors is not possible.

Trim panels

Enclosure height mm	Packs of	Model No. FR
2000	2	7856.743
2200	2	7856.746

Note:

Upon request, trim panels may be inserted on the outer sides of the bayed enclosure suites to protect the enclosures against unauthorised access.





Mounting/cable management panel

for QuickBox 3 U, 6 U with vertical 482.6 mm (19") level

For structured cable routing or for mounting small components or distributors (such as hubs, switches etc.). The cable management panel is easily fitted in the front of the rear panel from the front.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.

Width mm	Length mm	Packs of	Model No. QB
485	450	1	7502.270

+ Accessories:

Nylon loop, see page 1066.
Cable ties, see page 1066.



Cable route

Universal cable tray. Ideal for large quantities of cable.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.

Width mm	Length mm	Packs of	Model No. DK
150	1700	1	7858.150
200	1700	1	7858.152
300	1700	1	7858.154

+ Accessories:

Punched section with mounting flange, see page 993.
Nylon loop, see page 1066.
Cable ties, see page 1066.



Cable glands

for fibre-optic technology

The standard sizes PG 7 and PG 13.5 have a slotted inner seal. This allows super-easy cable entry. Ideal for routing break-out cables, as this eliminates unnecessary bending of the fibre-optic cables.

Material:

Cable gland: Brass, nickle-plated
Inner seal: Soft PVC insert



Fibre-optic cable gland	Cable diameter mm	Packs of	Model No. DK
PG 7	3	12	7455.010 ¹⁾
PG 13.5	2 x 3	12	7455.030

¹⁾ Delivery times available on request.

Cable management

Cable routing 482.6 mm (19")



Cable routing bars

For structured routing of entire cable bundles, the cable bars may be secured to a variety of different positions inside the enclosure.

Material:

Support: Sheet steel,
Cable routing bars, connection combs: Plastic

Colour:

RAL 9005

Supply includes:

Cable routing bars and connection combs.



482.6 mm (19") attachment

For horizontal cable routing within the distributor level.

Thanks to their open mounting holes, they can also be retrospectively slotted onto the 482.6 mm (19") system punchings of the mounting level at any time and secured with the existing mounting screws of the installed components.

Packs of	No. of connection combs	Model No. DK
4	2	7111.224
10	5	7111.214



All-round attachment for universal use

For vertical and horizontal cable routing inside the enclosure or within the distributor level.

Packs of	No. of connection combs	Model No. DK
4	2	7111.222
10	5	7111.212



Cranked attachment

For mounting angles and mounting frames. Horizontal, U-based cable routing to the distributor level.

Packs of	No. of connection combs	Model No. DK
4	2	7111.220
10	5	7111.210



Connection comb

For connecting individual cable routing bars into complete systems (included with the supply).

Cable routing 482.6 mm (19")

B
7.8



1



2

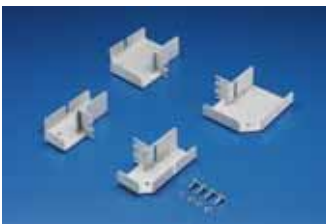
Distributor clip

Material:
Sheet steel, zinc-plated, passivated

Supply includes:
Assembly parts.

- 1 Distributor clip
For structured cable routing of entire cable bundles, the distributor clip may be secured to a variety of different positions inside the enclosure. It may be used for both horizontal and vertical distribution of the cables.
- 2 Distributor clip, horizontal
For mounting angles and mounting frames. Distribution of cables among the various height units of the patch level.

	Packs of	Model No. DK
1	4	7111.252
2	4	7111.250



Cable deflector

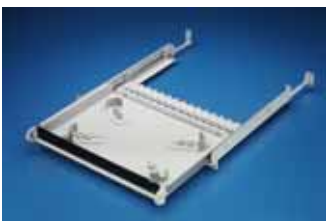
for 482.6 mm (19") mounting angles

For kink-free routing of fibre-optic cables from the 482.6 mm (19") level around the mounting angle. The open 482.6 mm (19") attachment facilitates screw-fastening together with the patch panel. The cable deflector may additionally be screw-fastened to the side edge fold.

Material:
Sheet steel, RAL 7035

Supply includes:
1 set =
4 cable deflectors, right,
4 cable deflectors, left,
including assembly parts
for screw fastening at the sides.

For enclosure width mm	Packs of	Model No. DK
600	1 set	7111.460
800	1 set	7111.480



Drawer 482.6 mm (19")

to accommodate excess cable length

The 1 U drawer offers a convenient opportunity for storing excess length in an organised, compact and secure way within the 482.6 mm (19") levels.

- With brush strip at the front for cable entry
- T-head rail in the rear section for cable clamping
- Ring-shaped kink-free routing of the conductors on adjustable elements in the interior
- May be fitted between two 482.6 mm (19") levels at a distance of 435 – 750 mm
- Independent from the enclosure system
- Both on L-shaped and cranked mounting angles and mounting frames

Packs of	Distance between levels mm	Model No. DK
1	435 – 750	7063.200

Material:
Sheet steel

Colour:
RAL 7035

Supply includes:
Assembly parts.

+ Accessories:

Nylon loop DK 7072.220/DK 7072.230, see page 1066.

Cable management

Cable routing 482.6 mm (19")

Cable management panel

482.6 mm (19")

For horizontal management of the patch cables with 5 cable shunting rings, supplied loose.



Material:

Panel: Sheet steel
Ring: Polyamide

Colour:

RAL 7035

U	Ring size mm	Model No. DK
1	70 x 44	7159.035



Material:

Panel: Sheet steel
Ring: Polycarbonate

Colour:

RAL 7035

U	Ring size mm	Model No. DK
1	95 x 50	7255.035



Material:

Panel: Sheet steel
Ring: Sheet steel, zinc-plated, passivated

Colour:

RAL 7035

U	Ring size mm	Model No. DK
1	105 x 43	7257.035
2	125 x 85	7257.100



Material:

Panel: Sheet steel
Ring: Sheet steel, zinc-plated, passivated

Colour:

RAL 9005

U	Ring size mm	Model No. DK
1	105 x 43	7257.005
2	125 x 85	7257.105¹⁾

¹⁾ Delivery times available on request.

Note:

The indicated dimensions are external dimensions.

Cable routing 482.6 mm (19")

Cable management panel, 2 U

482.6 mm (19")

The cable routing chamber has cut-outs from above, into which the patch cables can be inserted. The cable management panel is equipped with a flap and quick-release fasteners at the front, for optimum access to the cables. From the rear, the cables can be inserted via a cut-out with brush strips. With accommodation facility for cable clamp straps DK 7610.000 or DK 7611.000.



Material:

Sheet steel

Colour:

RAL 7035

U	Depth mm	Model No. DK
2	85	7158.035

+ **Accessories:**

Cable clamp strap, see page 1070.



B
7.8



Cable routing channel

482.6 mm (19")

To hold the patching cables.

Material:
Sheet steel

Colour:
RAL 7035

U	Depth mm	Model No. DK
1	85	7149.135
3	100	7149.035

Other versions available on request.



Cable management panel, 2 U

To accommodate fibre-optic and copper cables. Fibres from the patch panels are placed into the tray via openings and may be distributed at the sides. Rounded openings protect the cable sheathing.

Material:
Sheet steel

Colour:
RAL 7035

U	Model No. DK
2	7269.135



Cable management duct, horizontal

482.6 mm (19")

The duct facilitates concealed, simple cable routing of large quantities of cables to equipment within the 482.6 mm (19") attachment level. Large cut-outs ensure convenient, kink-free cable routing to the cables top and bottom.

For simple handling, the entire front panel may be removed via quick-release fasteners. After attaching the cables, these are held in position via nylon ties, whilst the duct may be resealed.

Material:
Sheet steel

Colour:
RAL 7035

Supply includes:
5 nylon loops.



U	Model No. DK
2	7158.100
3	7158.150



Cable tray, 2 U

For side routing and distribution of fibre-optic and copper cables. In this way, cables inserted into the roof area may be routed at the side of the mounting angles in the upper section of the rack. Depth 85 mm.

Material:
Sheet steel

Colour:
RAL 7035

U	Model No. DK
2	7269.235

Cable management

Cable routing 482.6 mm (19")



Fibre-optic cable management panel, 1 U

482.6 mm (19")

The four fibre-optic cable shunting rings integrated into the front permit optimum management of up to 48 fibres.

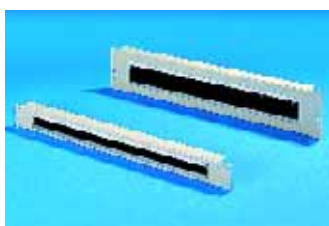
Material:
Panel: Sheet steel
Ring: 2 K plastic

Colour:
Panel: RAL 7035
Cable shunting ring external: RAL 7035,
black interior

U	Model No. DK
1	7256.035

➡ Possible alternative:

Fibre-optic support guide DK 7116.500, see page 1071.



Cable entry panel

482.6 mm (19")

Cut-out 390 x 40 mm (2 U) or 390 x 20 mm (1 U) with brush insert. With accommodation facility for cable clamp straps DK 7610.000 or DK 7611.000.

Material:
Sheet steel

Colour:
RAL 7035

U	Model No. DK
1	7140.535
2	7150.535

Other versions available on request.

⊕ Accessories:

Cable clamp strap, see page 1070.



Cable routing across the 482.6 mm (19") mounting level

There is a choice of five different cable clamping systems for system-compatible cable routing in 482.6 mm (19") systems with one or two pairs of mounting angles:

C rail
for fastening across all 482.6 mm (19") mounting angles.

C rail	Depth in mm	Model No. DK
482.6 mm (19") level	-	7016.100

Cable clamp rails
for fastening across all 482.6 mm (19") mounting angles, for cable ties.

Cable clamp rail	Depth in mm	Model No. DK
482.6 mm (19") level	-	7016.110

Cable clamp straps for swing frames, large, and Data Rack

The cable clamp straps are mounted on frame at the rear, whilst the cables are clamped 250 mm behind the 482.6 mm (19") mounting angles.

Cable clamp strap for	Depth in mm	Model No. DK/FR
Data Rack and large swing frame	250	7016.120
DK-TS mounting angles	100	7016.130

Packs of 6

Cable clamp straps for DK-TS mounting angles
with side lugs for suspending from the cranked 482.6 mm (19") mounting angles. Cable clamping is via cable ties.

Material:
Sheet steel, zinc-plated, passivated

⚠ Also required:

With L-shaped TS mounting angles, adaptor DK 7827.300 is additionally required, see page 1023.

Cable routing 482.6 mm (19")

B
7.8

482.6 mm (19") installation

Swing frames



Swing frame, small

for 600 mm and 800 mm wide TS enclosures

For mounting 482.6 mm (19") equipment. The front installation situation, at the top or bottom of the enclosure frame, is achieved with the installation kit. The installation accessories required for other installation variants are described separately (see page 1080). With 800 mm wide enclosures, central or side-offset installation is possible.

Technical specifications:

Torsionally stiff frame, welded from rectangular tube and triple folded support section.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Cam with double-bit lock insert and parts for attaching to the installation kit.



Also required:

Installation kit for swing frame, small, see page 1080.

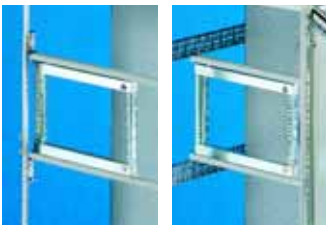
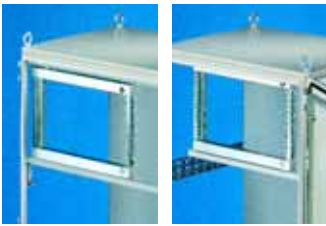


Accessories:

PS punched section without mounting frame, see page 998.

TS support bracket, see page 1007.

Lock inserts, version D, see page 956.



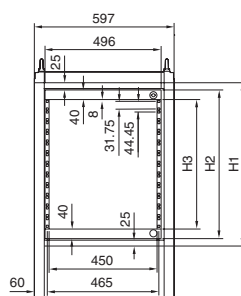
Height units	3 U	6 U	9 U	12 U	15 U	18 U
Model No. SR	2377.030	2377.060	2377.090	2377.120	2377.150	2377.180
H1 mm	275	408	541	675	808	941
H2 mm	217	350	483	617	750	883
H3 mm	137	270	403	537	670	803

Installation depth T max. = mm with dimension D¹⁾ of at least 45 mm

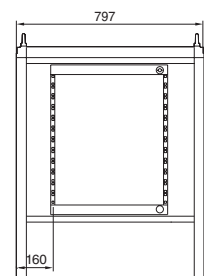
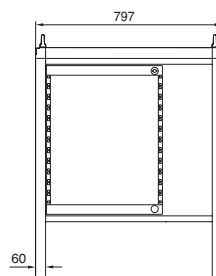
Enclosure width mm	600	800	800
Installation	central	side	central
Enclosure depth mm	T max.	T max.	T max.
400	185	310	310
500	185	410	370
≥ 600	185	500	370

¹⁾ D = Distance from the inner edge of the door to the front edge of the swing frame may be installed deeper on a 25 mm pitch pattern.

For 600 mm wide enclosures



For 800 mm wide enclosures optionally at the side or in the centre

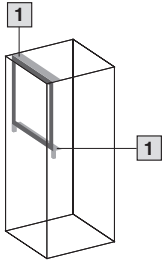


482.6 mm (19") installation

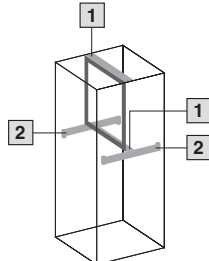
Swing frames

5 examples for TS

Partial installation with 600 and 800 mm wide enclosures, each in the uppermost or lowest position.

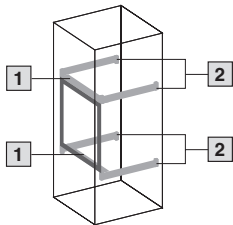


at the front

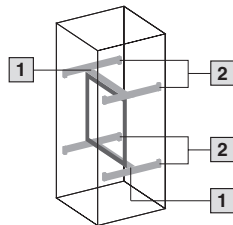


set back

Partial installation, centre in 600 and 800 mm wide enclosures.



at the front



set back

! Also required:

Depending on the installation position:

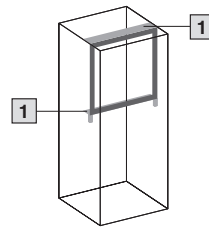
- 1 Installation kit for swing frame, small.
- 2 PS punched sections without mounting flanges 23 x 73 mm to match the enclosure depth in conjunction with 4 support brackets TS 8800.330 (two are included with the supply of the installation kit)

Note:

Height compensation between the 25 mm pitch pattern of holes in the enclosure and the height units of the swing frame is achieved by the support brackets TS (two are included with the supply of the installation kit).

Side installation

With an enclosure depth of 600 or 800 mm, side installation of a small swing frame is identical to installation parallel to the front. For access to the swing frame we recommend the hinges for the TS side panel, see page 918.



Installation kit

for swing frame, small, or hinge attachment for partial mounting plate in TS 8.

Material:

Cross member: Sheet steel, clear-chromated
Support bracket TS: Die-cast zinc

Supply includes:

2 cross members, including assembly parts.

Enclosure width mm	Model No. SR
600	2377.860
800	2377.880

+ Accessories:

Depending on the installation position (see above):

Support brackets TS 8800.330, see page 1007, and PS punched sections without mounting flanges to match the enclosure depth, see page 998.



Installation kit

for swing frame, small in ES, AP universal console.

Enclosure width mm	Packs of	Model No. SR
600	1 set	2377.460

+ Accessories:

Depending on the installation position:

Support brackets PS 4183.000, see page 1007, and PS punched sections without mounting flanges in accordance with the enclosure depth, see page 998.

482.6 mm (19") installation

Swing frames



Swing frame, large

**without trim panel
for TS, ES, CM, AP universal console**

For mounting 482.6 mm (19") equipment.
The installation accessories required for other installation variants are described separately (see page 1082).

Technical specifications:

Torsionally stiff frame, welded from rectangular tube and triple folded support section.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

2 cams with double-bit lock insert and parts for attaching to the installation kit.

Note:

If the enclosure height is not fully utilised by the swing frame, additional mounting accessories – see page 1082 – will be required.



Also required:

Installation kit for swing frame, large, see page 1082.



Accessories:

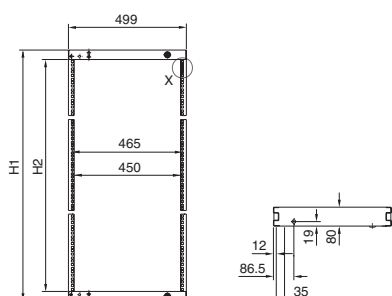
Depending on the installation position:
TS punched section with mounting flange, 23 x 73 mm, see page 995.
TS punched rail 18 x 38 mm, see page 996.
PS punched section with mounting flange, see page 999.
Width divider, see page 909.
Lock inserts, version D, see page 956.



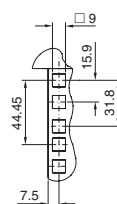
Height units	22 U	31 U	36 U	40 U	45 U
Model No. SR	2322.700	2331.700	2336.700	2340.700	2345.700
For enclosure height mm (or higher)	1200	1600	1800	2000	2200
H1 mm	1061.5	1461.5	1684.5	1861.5	2084.0
H2 mm	981.5	1381.5	1604.0	1781.5	2004.0

Installation depth T max. = mm with dimension D ¹⁾ of at least 49 mm			
Enclosure width mm	600	1200	1200
Installation	central	left or right	left and right
Enclosure depth mm	T max.	T max.	T max.
400	185	295	295
500	185	395	365
600	185	495	365
800	185	695	365

¹⁾ D = Distance from the inner edge of the door to the front edge of the swing frame may be installed deeper on a 25 mm pitch pattern.



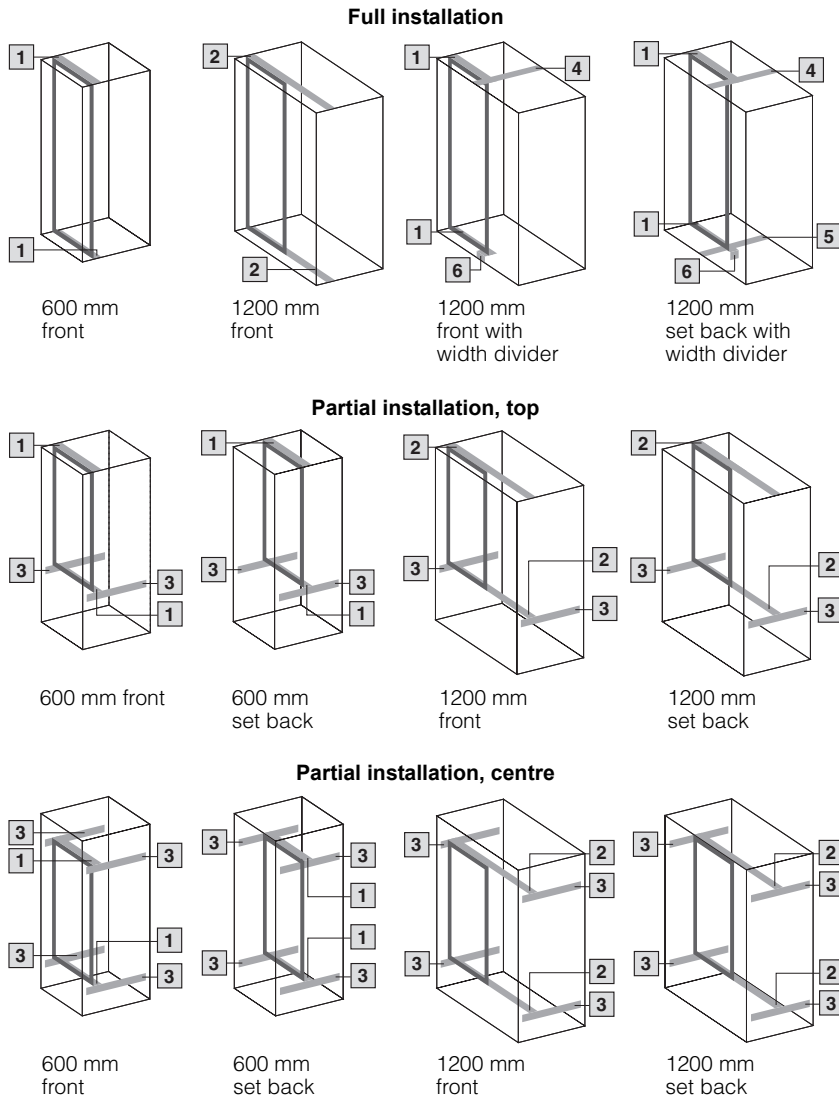
Cut-out "X"



482.6 mm (19") installation

Swing frames

13 examples for TS



! Also required:

Depending on the installation position:

- 1 Installation kit for 600 mm wide enclosures
- 2 Installation kit for 1200 mm wide enclosures
- 3 TS punched section with mounting flange 23 x 73 mm for the inner mounting level in the respective enclosure depth, for installation in ES = PS punched sections with mounting flanges
- 4 PS punched section without mounting flange in the respective enclosure depth in conjunction with support bracket PS
- 5 TS punched rail 18 x 38 mm in the corresponding enclosure depth¹⁾
- 6 Width divider (left-hand or right-hand angle)¹⁾

¹⁾ Not possible with ES, CM.

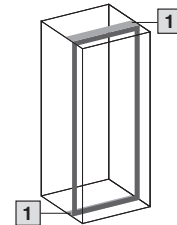
Notes:

- Height compensation between the 25 mm pitch pattern of holes in the enclosure and the height units of the swing frame is achieved by the upper installation kit.
- Partial installation at the bottom matches partial installation at the top.
- CM only supports full installation at the front.

Side installation

With an enclosure depth of 600 mm, side installation of a large swing frame is identical to installation parallel to the front.

For access to the swing frame we recommend the hinges for the TS side panel, see page 918.



Installation kits

for swing frame, large without trim panel

With 800 mm wide enclosures, the swing frame may also be installed in the centre or offset to the side.

Material:
Sheet steel

Colour:
RAL 7035

Supply includes:
Parts for attaching to the enclosure.

+ Accessories:

Swing frame stay,
see page 1085.

Installation kits for swing frame, large without trim panel

For enclosures			Hinge design	Load capacity	For enclosure width mm		
TS	ES, AP universal console	CM			600	800	1200
		■	130°	< 800 N	1985.500	1986.500	–
■	■			< 1500 N ²⁾	1994.835	1995.235	–
	■			< 1500 N	–	–	1996.835
■				< 1500 N ¹⁾	–	1995.835	1996.535
■	■			< 1200 N ²⁾	–	1997.235	–
			180°	< 1200 N ¹⁾	–	1997.835	–

¹⁾ Installation only possible with the mounting plate slide rail dismantled.
²⁾ Maximum load 800 N with the TS mounting plate slide rail dismantled.

482.6 mm (19") installation

Swing frames



Swing frame, large

with trim panel for TS, ES, CM

For mounting 482.6 mm (19") equipment. The installation accessories required for other installation variants are described separately (see page 1084).

Technical specifications:

Torsionally stiff frame, welded from rectangular tube and six-folded support section. The side trim panels are screw-fastened to the frame. The right-hand trim panel has a handle strip at the side and is equipped with a locking rod system.

Material:

Sheet steel

Surface finish:

Frame, zinc-plated
Trim panels spray-finished

Colour:

RAL 7035

Supply includes:

Locking rod system with double-bit lock insert and parts for attaching to the installation kit.

Note:

If the enclosure height is not fully utilised by the swing frame, additional mounting accessories – see page 1084 – will be required.

For two-door enclosures with height 1800 and 2200 mm the next-smallest swing frame must be installed, due to collision with the lock.



Also required:

Installation kit for swing frame, large, see page 1084.



Accessories:

TS punched section with mounting flange, 23 x 73 mm, see page 995.

PS punched section with mounting flange, see page 999.

Lock inserts, version A, see page 956.

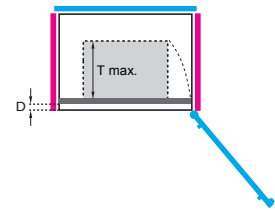
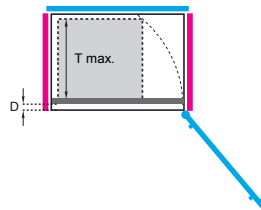
Ergoform-S lock system, see page 953.



Height units	22 U		31 U		36 U		40 U		45 U		
	side	central	side	central	side	central	side	central	side	central	
Trim panel											
Model No. SR	RAL 7035	2323.235	2324.235	2332.235	–	2337.235	2338.235	2341.235	2342.235	2346.235	2347.235
For enclosure height mm (or higher)		1200		1600		1800		2000		2200	
H1 mm		1061.5		1461.5		1684.5		1861.5		2084.0	
H2 mm		981.5		1381.5		1604.0		1781.5		2004.0	

Installation depth T max. = mm with dimension D¹⁾ of at least 49 mm with 130° hinge, 95 mm with 180° hinge

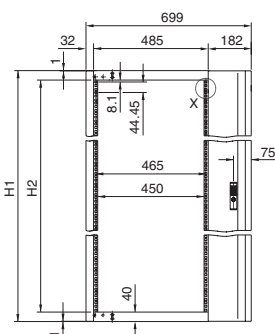
Enclosure width mm	800	
--------------------	-----	--



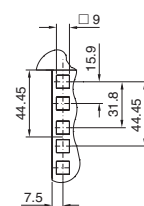
Installation	side		central
Hinge	130°		180°
Enclosure depth mm	T max.		T max.
400	295		252
500	395		352
600	470		428
800	470		428

¹⁾ D = Distance from the inner edge of the door to the front edge of the swing frame may be installed deeper on a 25 mm pitch pattern.

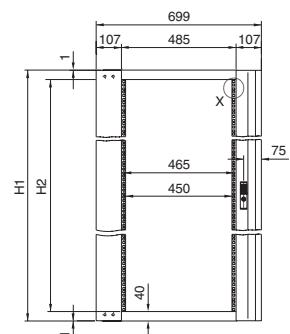
Equipment at sides



Cut-out "X"



Equipment in centre

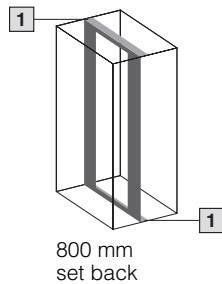
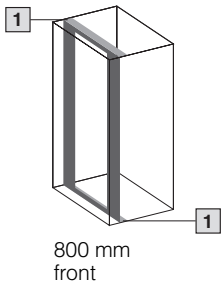


482.6 mm (19") installation

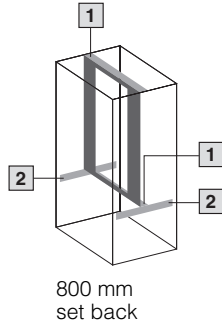
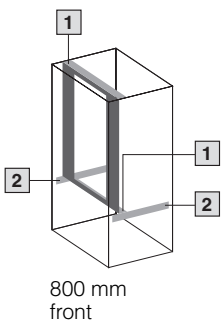
Swing frames

7 examples for TS

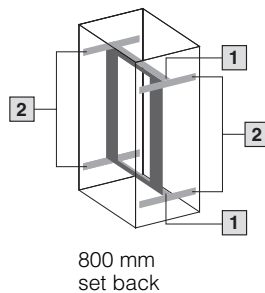
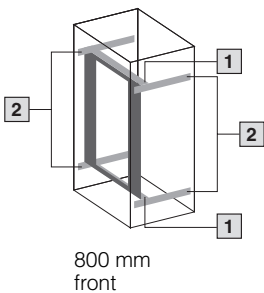
Full installation



Partial installation, top



Partial installation, centre



! Also required:

Depending on the installation position:

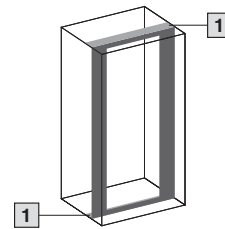
- 1 Installation kit for 800 mm wide enclosures
- 2 TS punched section with mounting flange 23 x 73 mm for the inner mounting level corresponding to the enclosure depth, for installation in ES = PS punched sections with mounting flanges

Notes:

- Height compensation between the 25 mm pitch pattern of holes in the enclosure and the height units of the swing frame is achieved by the upper installation kit.
- Partial installation at the bottom matches partial installation at the top.
- CM only supports full installation at the front.

Side installation

With an enclosure depth of 800 mm, side installation of a large swing frame is identical to installation parallel to the front. For access to the swing frame we recommend the hinges for the TS side panel, see page 918.



Installation kits

for swing frame, large with trim panel

Material:
Sheet steel

Colour:
RAL 7035

Supply includes:
Parts for attaching to the enclosure.

+ Accessories:

Swing frame stay,
see page 1085.

Installation kits for swing frame, large with trim panel

TS	For enclosures		Hinge design	Load capacity	For enclosure width 800 mm
	ES, AP universal console	CM			Model No. SR
		■	130°	< 800 N	1986.500
■	■			< 1500 N ²⁾	1995.235
■				< 1500 N ¹⁾	1995.835
		■	180°	< 800 N	1986.500 + 1978.200
■	■			< 1200 N ²⁾	1997.235
■				< 1200 N ¹⁾	1997.835

¹⁾ Installation only possible with the mounting plate slide rail dismantled.

²⁾ Maximum load 800 N with the TS mounting plate slide rail dismantled.

482.6 mm (19") installation

Swing frames



Swing frame, 482.6 mm (19")

Heavy-duty version for 800 mm wide enclosures, based on TS 8

The swing frame facilitates the accommodation of a wide range of 482.6 mm (19") components up to a weight load of 350 kg. By swinging the frame outwards, access can be gained to the rear of the equipment and its cabling at any time. The maximum opening angle is 130°.

At the side, the swing frame has a trim panel with integral handle strip and two-point locking bar.

A semi-cylinder lock can be achieved by using the Ergoform-S handle system.

Several openings in the trim panel permit convenient cable routing from the rear of the swing frame in the front section. The openings may also be optionally top-mounted with standard commercially available plastic cable ducts.

An additional vertical row of holes integrated into the trim panel facilitates vertical and horizontal cable routing via cable shunting rings.

Installation is only possible in the form of full enclosure installation. The installation position may be varied in the enclosure depth.



U	For enclosure height mm	Model No. DK
40	2000	7858.100

Load capacity:

350 kg

Material:

Swing frame: Sheet steel, zinc-plated, passivated
Trim panel and installation kit:

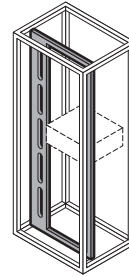
Sheet steel, spray-finished in RAL 7035

Supply includes:

Locking rod with double-bit lock insert, heavy-duty installation kit and assembly parts.

Note:

Max. installation depth of the equipment $T_{max.1}$, see page 1083 (swing frame, large, with side trim panel).



Swing frame stay

Holds the swing frame in the open position.

For mounting on:

Swing frame, large

- SR 1979.200, at the top of the enclosure
- SR 1980.200, at the bottom of the enclosure (with safety stop at 160°)



For mounting on:

Swing frame, small

- SR 1979.200, may be mounted at the top or bottom of the installation kit.

	Packs of	Model No. SR
With 130° hinge	5	1979.200
With 180° hinge	1	1980.200



Slide rails

To support heavy slide-in electronic equipment, 482.6 mm (19") in the swing frame.

Material:

Sheet steel, zinc-plated, passivated

For slide-in equipment with max. installation depth	Packs of	Model No. SR
T max. < 190 mm	10	1962.200
T max. > 190 mm	10	1963.200

482.6 mm (19") installation

Swing frames



Pull-out frame, 482.6 mm (19") for TS

For the installation of a pull-out 482.6 mm (19") front. For 600 and 800 mm wide TS enclosures, from a depth of 800 mm.

Overall depth: 525 mm
Extension piece: 500 mm
Distance: 300 mm

Load capacity: 50 kg.

Colour:
RAL 7035

Supply includes:
Telescopic slides and assembly parts.

German patent no. 39 07 471

For U	Height mm	Model No. DK
12	637	7124.035
18	903	7125.035¹⁾
21	1037	7126.035¹⁾

¹⁾ Delivery times available on request.



Also required:

Installation kit according to the enclosure width.

As installation kit for enclosure width 600 mm:
TS punched section with mounting flange,
17 x 73 mm,
see page 1086.

As installation kit for enclosure width 800 mm:
Support strips,
see page 1086.

Note:

The slide rail DK 7963.310 (see page 1098) can be mounted directly in the pull-out frame to support heavy equipment.



TS punched sections with mounting flanges as installation kit

for pull-out frame

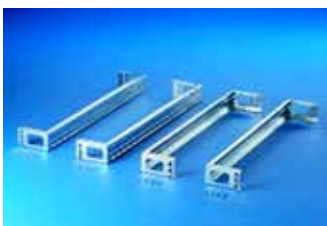
Installation in enclosure width 600 mm.

The installation kit comprises 4 TS punched sections with mounting flanges 17 x 73 mm.

Material:
Sheet steel, zinc-plated, passivated

Supply includes:
Assembly parts.

For enclosures		Packs of	Model No. TS
Width mm	Depth mm		
600	800	4	8612.080
600	900	4	8612.090
600	1000	4	8612.000



Depth stays as installation kit for pull-out frame

Installation in enclosure width 800 mm.

The installation kit consists of 4 depth stays.

Material:
Sheet steel, zinc-plated, passivated

For enclosures		Packs of	Model No. TS
Width mm	Depth mm		
800	800	4	7827.800
800	900	4	7827.900
800	1000	4	7827.000

482.6 mm (19") installation

Swing frames



Vario swing frames

for ES, width 800 mm

For the installation of 482.6 mm (19") equipment.

Technical specifications:

Torsionally stiff frame, welded from rectangular tube and triple-folded support section. Firmly linked extension panels on the left and right.

Material:

Sheet steel

Colour:

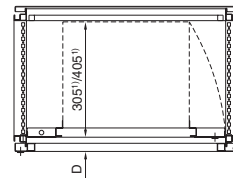
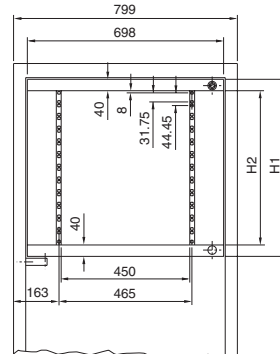
RAL 7035

Supply includes:

Double-bit lock insert and assembly parts.

+ Accessories:

47 mm lock insert, version D, see page 956.



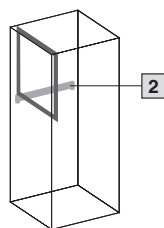
1) at D 41.5 mm

For 800 mm wide enclosures

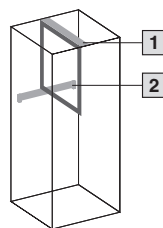
Height units	6 U	12 U	18 U
Model No. SR	2004.235	2008.235	2011.235
H1 mm	350	616.5	883
H2 mm	270	536.5	803
Max. installation depth with enclosure depth	400 mm	305 mm	
	500 mm	405 mm	
Dimension D mm	41.5 – 59.5 – 77.5 – 116.5 – 134.5 – 141.5 – 159.5		

Installation examples

Mounting accessories according to the installation position (swing frame in topmost position)



at the front



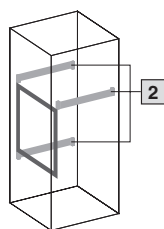
set back

! Also required:

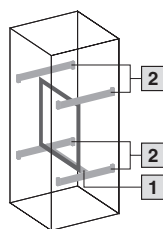
Depending on the installation position:

- 1 PS punched section with mounting flange for enclosure width 800 mm, see page 999.
- 2 PS punched section with mounting flange in accordance with the enclosure depth, see page 999.

Mounting accessories according to the installation position (swing frame offset downwards)



at the front



set back

482.6 mm (19") installation

Swing frames



Compact swing frame

for AE, AP one-piece console

For mounting slide-in electronic equipment, 482.6 mm (19"), across the entire height.

Technical specifications:

Torsionally stiff frame, welded from rectangular tube and triple-folded support section.

Material:

Sheet steel

Colour:

RAL 7035

Supply includes:

Double-bit lock insert and assembly parts.



Accessories:

41 mm lock insert, version C, see page 956.

For AE

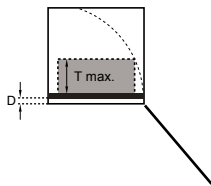
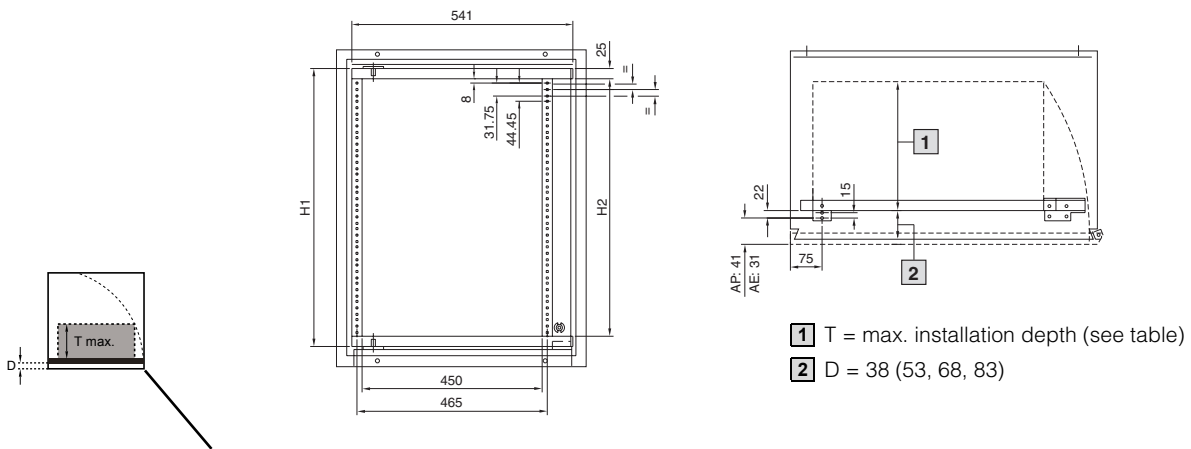
For compact enclosure AE			Height units	6 U	11 U	14 U
Enclosure		Max. installation depth (T max.) mm	Model No. SR	2026.200	2027.200	2034.200
Width mm	Depth mm			For enclosure height mm	380	600
			H1 (mm)	320	542	676
			H2 (mm)	270	492	626
600	210	145	Spray-finished	1039.500	1060.500	1076.500
			Stainless steel	1009.600	1010.600	1012.600
600	350	265	Spray-finished	1339.500	1360.500	1376.500
760	210	145	Spray-finished	-	-	1077.500
			Spray-finished	-	-	1073.500
760	300	235	Stainless steel	-	-	1014.600

For AP one-piece console

Height units	11 U
Model No. SR	2027.200
H1 mm	542
H2 mm	492

For AP one-piece consoles	Max. installation depth (T max.) mm
2668.500	315
2672.500	315
2684.500	295 ¹⁾
2686.500	295 ¹⁾

¹⁾ When fitting 2 swing frames.





Mounting angles, 482.6 mm (19")

for TS, ES

For the installation of subracks and other equipment. Mounting angles are easily shortened for partial assemblies.

Supply includes:

Assembly parts.



Accessories:

Infill panels, see page 1090.
 Captive nuts, see page 1010.
 Assembly screws, see page 1011.
 Slide rails with one-sided mounting, see page 1097.
 Slide rails with two-sided mounting, see page 1097.
 Installation kit for drawers, see page 1102.
 Installation kit for component shelves, see page 1024.

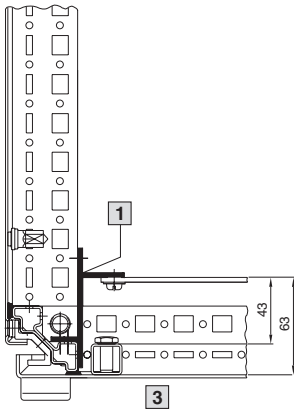
For enclosure height mm	Packs of	For enclosure system TS ¹⁾		For enclosure system ES		
		U	Extruded aluminium section	U	Extruded aluminium section	Sheet steel, spray-finished, RAL 7035
			Model No. TS		Model No. PS	
1600	4	33	8613.060	33	4389.000	–
1800	4	38	8613.080	37	–	–
2000	4	42	8613.000	42	–	4358.200
2200	4	47	8613.020	46	–	–
For PC enclosure ²⁾	4	17	8613.070	17	4632.000	–

¹⁾ For the rear of electronic enclosures, see page 1090.

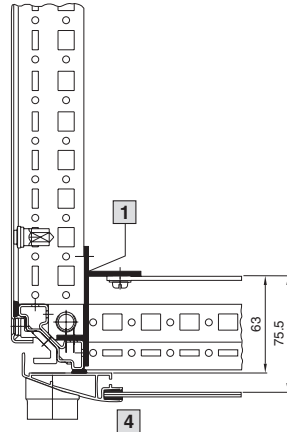
²⁾ Behind bottom door.

Assembly examples of TS:

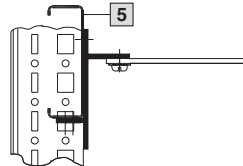
Drawing 1



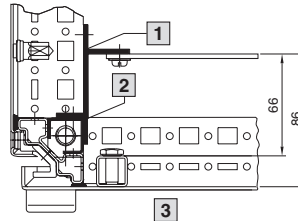
Drawing 2



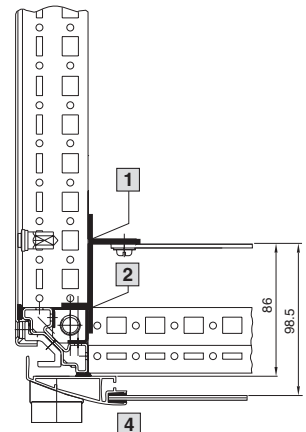
Drawing 3



Drawing 4



Drawing 5



Drawing 1 and 2:

Mounting angle or adaptor piece fitted in the foremost installation position, directly on the vertical section. When installing slide rails with two-sided mounting (see page 1097), the same mounting angles or adaptor pieces must also be mounted on the vertical section at the rear.

Drawing 3:

Mounting on two vertically installed PS punched sections permits fully flexible use of the enclosure depths.

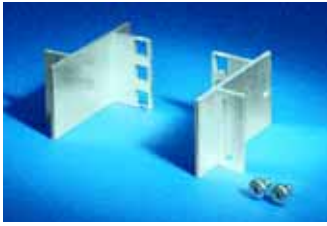
Drawing 4 and 5:

Greater distance from the door is achieved by mounting on adaptor rails for PS compatibility. In this position, the slide rails can be fitted with one-sided mounting.

- 1** Mounting angles/piece
- 2** Adaptor rail
- 3** TS sheet steel door
- 4** TS glazed door
- 5** Punched section without mounting flange

482.6 mm (19") installation

Mounting angles



Adaptor pieces, 482.6 mm (19") for TS, ES

The "1 U" sub-section of mounting angles. For the installation of individual subracks and other equipment.

Supply includes:
Assembly parts.

Note:
Assembly examples, see page 1089.



For	U	Packs of	Model No. TS	Model No. PS
TS	1	4	8613.010	–
ES	1	8	–	4547.000

+ Accessories:

Captive nuts, see page 1010.
Assembly screws, see page 1011.
Slide rails with two-sided mounting, siehe Seite 1097.
Installation kit for drawers, see page 1102.
Installation kit for component shelves, see page 1024.



Mounting angles, 482.6 mm (19")

for rear installation in TS electronic enclosures

For installing subracks at the front and back, and for attaching the slide rails TS 8613.150, TS 8613.160 and TS 8613.180 (see page 1097). Assembly is carried out on the inner mounting level.

The outer mounting level can, e.g. still be used for cable routing on depth-mounted TS punched sections with mounting flange.

Material:
Extruded aluminium section

Supply includes:
Assembly parts.

Note:
Design similar to mounting angles, 482.6 mm (19") (see page 1089), but asymmetrical height, suitable for TS electronic enclosure.

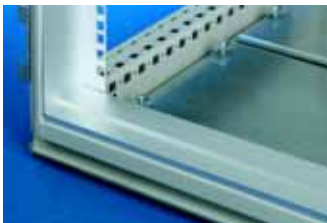
For enclosure height mm	U	Packs of	Model No. TS
1600	33	2	8613.360
2000	42	2	8613.300

+ Accessories:

Captive nuts, see page 1010.
Assembly screws, see page 1011.
Slide rails with two-sided mounting, see page 1097.
Installation kit for drawers, see page 1102.
Installation kit for component shelves, see page 1024.

= Possible alternative:

Adaptor pieces, 482.6 mm (19"), see page 1090.



Infill panels, 482.6 mm (19"), horizontal

for TS electronic enclosure

To infill between installed 482.6 mm (19") equipment positioned in the full enclosure height and the enclosure clearance height.

Material:
Extruded aluminium section

Supply includes:
Assembly parts.

For enclosure height mm	Packs of	Model No. TS
1600/2000	2	8613.040
1800/2200	2	8613.030



Aluminium cross rail

for TS electronic enclosure for sub-division of the front.

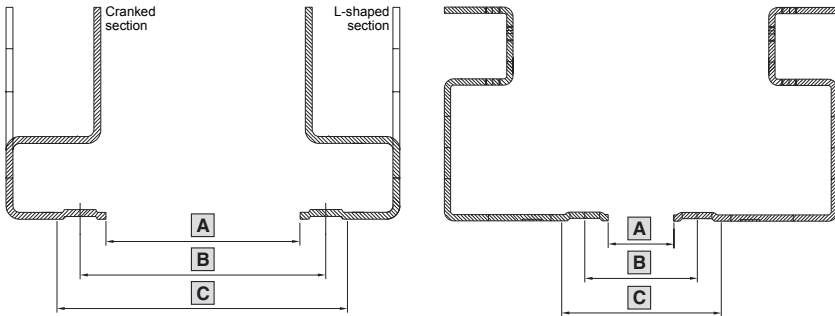
Material:
Extruded aluminium section

Colour:
RAL 7035

Height	Model No. TS
1 U	8613.240

Supply includes:
Assembly parts.

Explanation of the mounting dimensions in interior installations



- A** = Clearance width
- B** = Mounting dimension
- C** = External dimension of the rack-mounted equipment or of the front panels

Installation width	A mm	B mm	C mm
§ 19"	450	465	482.6
§ 21"	500	515	533.4
§ 23"	552	567	584.2
§ 24"	577	592	609.6
§ 10"/39 HP	221.4	236	254
§ 1/2 19"/42 HP	236.6	251.2	269.2
§ 9.5"	208.7	223.3	241.3
§ 18 SU	450	465	485
§ 20 SU	500	515	535



Mounting angles, 482.6 mm (19")

for TS, FR(i), Toptec CR

Available in two versions:

Cranked

The integral U markings in the front facilitate systematic assembly within the 482.6 mm (19") attachment level.

L-shaped

The L-shaped mounting angles accommodate the installation kits of server systems. The integral U markings in the front facilitate systematic assembly within the 482.6 mm (19") attachment level.

Technical specifications:

2 mm sheet steel, with integral 482.6 mm (19") punchings (EIA standard) and side round and square holes. Zinc-plated, passivated for conductive connection of the 482.6 mm (19") installed equipment.

Supply includes:

Assembly parts.

Explanation of the mounting dimensions in interior installations, see page 1091.



Full installation rack height mm	U	Packs of	Model No. DK	
			Cranked	L-shaped
600	11	2	–	7827.061
800	15	2	7827.080	7827.081
1000	20	2	7827.100	7827.101
1200	24	2	7827.120	7827.121
1400	29	2	7827.140	7827.141
1600	33	2	7827.160	7827.161
1800	38	2	7827.180	7827.181
2000	42	2	7827.200	7827.201
2200	47	2	7827.220	7827.221

Note:

The mounting angles can also be used to accommodate 21", 23" and 24" attachment dimensions.

Note FR(i):

Only full installation is possible in conjunction with the TS installation bracket (DK 7827.480), see page 1096.



Also required:

Punched sections with mounting flanges or depth stays for TS as installation kit for mounting angles, see page 1095 – 1096.

For L-shaped mounting angle variant: for mounting slide rails or component shelves: Adaptor DK 7827.300, see page 1023.

482.6 mm (19") installation

Mounting angles



Mounting angles, 482.6 mm (19")

for FR(i), width 600 mm

For the installation of 482.6 mm (19") components in the foremost mounting position.

The mounting angle may be rotated through 180°, so as to create additional free space for cable routing in the front section. Side openings allow the hollow section of the enclosure frame to continue being used for cable routing.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.

Explanation of the mounting dimensions in interior installations, see page 1091.

Enclosure height mm	Usable U with full installation	Packs of	Model No. FR(i)
600	11	2	7856.800
1200	24	2	7856.803
1800	38	2	7856.806¹⁾
2000	42	2	7856.809
2200	47	2	7856.812¹⁾

¹⁾ Delivery times available on request.



Mounting angles, 482.6 mm (19")

for FlatBox

L-shaped bracket as 2nd attachment level.

Material:

Sheet steel

Supply includes:

Assembly parts for fast, toolless assembly.

U	Packs of	Model No. DK
6	2	7507.706
9	2	7507.709
12	2	7507.712
15	2	7507.715
18	2	7507.718
21	2	7507.721

Note:

The 2nd attachment level should always be ordered in the same height as the basic enclosure. Partial configuration is not possible.



Mounting angles, 482.6 mm (19")

for QuickBox

For the installation of 482.6 mm (19") rack-mounted equipment.

Material:

Sheet steel

Colour:

RAL 7035

Supply includes:

Assembly parts.

Explanation of the mounting dimensions in interior installations, see page 1091.

For enclosures U	Packs of	Model No. QB
6	2	7502.201
9	2	7502.202
12	2	7502.203
15	2	7502.204
18	2	7502.205¹⁾
21	2	7502.206¹⁾

¹⁾ Delivery times available on request.

Mounting angles



Mounting angles, 482.6 mm (19")

for DK-EL

This mounting angle kit allows you to integrate a second 482.6 mm (19") level into EL enclosures.

Material:

Sheet steel

Colour:

RAL 7035

Supply includes:

Assembly parts.

Explanation of the mounting dimensions in interior installations, see page 1091.

U	Packs of	Model No. DK
6	2	7705.706
9	2	7705.709
12	2	7705.712
15	2	7705.715
18	2	7705.718
21	2	7705.721

B
7.9



T-slot mounting angles, 482.6 mm (19")/metric

for TS, FR(i), Toptec CR, CS basic and modular enclosures

With integral T-slot for U nuts. Holes on a U pitch pattern are integrated into the rear section of the T-slot. Round and square holes on a 25 mm DIN 43 660 pitch pattern of holes are provided for side attachment. The mounting angle may optionally be integrated using PS metric or 482.6 mm (19") depth stays.

Material:

Extruded aluminium section, pickled

Supply includes:

Assembly parts.

Note:

In 600 mm wide enclosures, mounting angles may be alternatively depth-mounted on TS punched sections with mounting flanges.

Explanation of the mounting dimensions in interior installations, see page 1091.

Full installation rack height mm	U	SU	Packs of	Model No. DK
800	15	26	2	7000.150 ¹⁾
1000	20	35	2	7000.200 ¹⁾
1200	24	42	2	7000.240 ¹⁾
1400	29	51	2	7000.290 ¹⁾
1600	33	58	2	7000.330 ¹⁾
1800	38	67	2	7000.380 ¹⁾
2000	42	74	2	7000.420
2200	47	83	2	7000.470 ¹⁾

¹⁾ Delivery times available on request.



Also required:

TS punched section with mounting flange as installation kit for mounting angles, see page 1095, or depth stay for PS, see page 1093.



Accessories:

Spring nuts with screws, see page 1104.



Mounting angles, 482.6 mm (19")

for CS basic and modular enclosures

For mounting 482.6 mm (19") components in Outdoor enclosures. The mounting angles are depth-adjustable on a 25 mm pitch pattern. An installation bracket is required to attach the mounting angles.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.

Explanation of the mounting dimensions in interior installations, see page 1091.

Enclosure height mm	U	Packs of	Model No. DK
800	15	2	7685.000
1200	24	2	7688.000
1400	29	2	7689.000
1600	33	2	7690.000



Also required:

Depth stay for PS, see page 1093.



Depth stay for PS

for TS, FR(i)

- T-slot mounting angles
- Mounting angles

Material:

Sheet steel, zinc-plated, passivated

Note:

Only full installation with FR(i).

Enclosure width mm	600/1200		800		
	482.6 mm (19")		482.6 mm (19")/metric (465 mm)		metric (515 mm)
Standards	central		central	side	central
Installation position	central		central	side	central
Model No. DK	2	7696.000	7698.000	7697.000	7000.100

482.6 mm (19") installation

Mounting angles



Mounting frame, 482.6 mm (19")

for TS, FR(i), CS basic and modular enclosures

The welded 482.6 mm (19") mounting frame may be attached with complete depth variability and is used to structure the front and rear 482.6 mm (19") level.

The mounting frame has the same system punchings as the TS 8 enclosure section at the sides and rear, and therefore supports the mounting of various TS 8 system accessories such as cable clamp rails, cable shunting rings etc.

Load capacity:

Up to 1000 kg static load, with even load distribution on two 482.6 mm (19") mounting frames, with full installation.

Material:

Sheet steel, zinc-plated, passivated

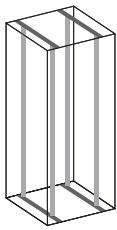
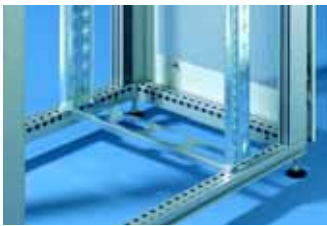
Supply includes:

Assembly parts.

Note:

A combination of 482.6 mm (19") mounting frame plus fan mounting plate is not possible. For active ventilation, we recommend use with modular fan roof.

Explanation of the mounting dimensions in interior installations, see page 1091.



For enclosures		U	Model No. FR(i)
Width mm	Height mm		
600	600	11	7856.710
600	1200	24	7856.713
600	1800	38	7856.716
600	2000	42	7856.719
600	2200	47	7856.722
800	1200	24	7856.725
800	1800	38	7856.728
800	2000	42	7856.731
800	2200	47	7856.734

+ Accessories:

Captive nuts, see page 1105.
 Assembly screws, see page 1011.
 Cable clamp rails TS, see page 1068.
 C rails, see page 1000.
 Component shelves, see page 1013 and page 1017.
 Fan roof, modular, see page 705.



Adhesive measurement strip, 482.6 mm (19")

Of stable aluminium foil, guarantees simple processing and durability. With numerical labelling on an imperial pitch pattern for clear identification of the various height units. The double-sided labelling allows the counting direction to be freely selected, up to a maximum of 56 U. In this way, clear documentation of the various mounting parts is easily achieved.

Material:

Aluminium foil

Labelling range U	Packs of	Model No. DK
1 – 56	1	7950.100

Mounting angles



Mounting angles, metric

for TS

The L-shaped mounting angles accommodate metric assemblies and components. Depending on the installation kit, mounting dimensions 465 mm and 515 mm can be configured.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.

Explanation of the mounting dimensions in interior installations, see page 1091.

Full installation rack height mm	SU	Packs of	Model No. DK
–	17	2	7831.611
1000	37	2	7831.621
1200	43	2	7794.420
1600	59	2	7794.740
2000	76	2	7831.631
2200	84	2	7831.641

! Also required:

Punched sections with mounting flanges or depth stays for TS as installation kit for mounting angles, see page 1095 – 1096.

482.6 mm (19") installation

Installation kits for mounting angles



Mounting angles additional fastening attachment

for 800 mm wide TS network enclosures

The additional fastening attachment counteracts bending of the mounting angles mounted on installation brackets in case of unevenly distributed loads. It is attached directly to 482.6 mm (19") mounting angles and to the punched section with mounting flange fitted in the depth (inner mounting level).

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.

Packs of	Model No. DK
2	7284.135



Also required:

TS punched section with mounting flange for the inner mounting level, see page 993 – 995.



TS punched section with mounting flange as installation kit

for

- Mounting angles, 482.6 mm (19")
- Mounting angles, metric, Mounting dimension 465 mm

Installation in enclosure width 600 mm

The installation kit consists of 4 TS punched sections with mounting flange 17 x 73 mm to accommodate mounting angles. One pack is sufficient for installing one or two 482.6 mm (19") attachment levels. For exceptionally heavy installed equipment, we recommend the installation of additional punched sections.

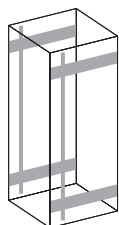
For enclosures		Packs of	Model No. TS
Width mm	Depth mm		
600	600	4	8612.060
600	800	4	8612.080
600	900	4	8612.090
600	1000	4	8612.000
600	1200	4	8612.020

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.



Depth stays as installation kit for mounting angles, 482.6 mm (19")

Installation in enclosure width 800 mm

One installation kit consists of 4 depth stays to accommodate mounting angles. One pack is sufficient for installing one or two 482.6 mm (19") attachment levels. For exceptionally heavy installed equipment, we recommend the installation of an additional depth stay in the centre. The front cut-out makes cable routing easier with full configuration

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

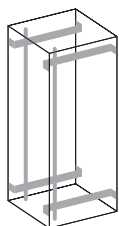
Assembly parts.

For enclosures		Packs of	Model No. DK
Width mm	Depth mm		
800	600	4	7827.600
800	800	4	7827.800
800	900	4	7827.900
800	1000	4	7827.000



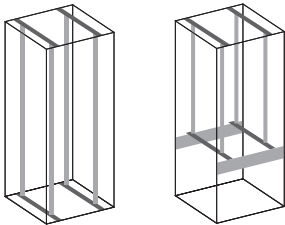
Possible alternative:

Depth stays TS for mounting angles, see page 1096.



482.6 mm (19") installation

Installation kits for mounting angles



Depth stays for TS

for mounting angles in TS, FR(i),
482.6 mm (19")

Installation in enclosure width 800 mm

Depth stays are screw-fastened to the enclosure frame in the enclosure width. The mounting angle is attached to the depth stay at the top and bottom. The depth stay ensures optimum clearance at the sides for cable routing. For partial enclosure configuration, the depth stays may be attached to the TS punched sections with mounting flanges 17 x 73 mm on the outer attachment level of the enclosure frame. Fully depth-variable attachment is facilitated by the attachment slots. Either cranked or L-shaped mounting angles may be used.

Material:

Sheet steel, zinc-plated, passivated
(DK 7827.480)
Sheet steel, spray-finished in RAL 7035
(DK 7827.490)

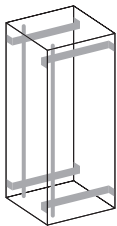
Supply includes:

Assembly parts.

Packs of	Model No. DK	
	Installation position	
	central	side
2	7827.480	7827.490

+ Accessories:

For partial installation, TS punched section with mounting flange, see page 993 – 994. Mounting angles, cranked or L-shaped, see page 1091.



Depth stays as installation kit

for Toptec CR

Installation in enclosure width 800 mm

One installation kit consists of 4 depth stays to accommodate mounting angles. One pack is sufficient for installing one or two 482.6 mm (19") attachment levels. The installation kit is secured to the inner mounting level.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.

For enclosures		Packs of	Model No. DK
Width mm	Depth mm		
800	600	4	7794.580

Note:

For frame size 600 x 600 mm you will need: TS punched section with mounting flange as installation kit, Model No. TS 8612.060, see page 1095.



Depth stays as installation kit

for mounting angles, 482.6 mm (19"),
mounting dimensions 23" and 24"

Installation in enclosure width 800 mm

When using depth stays in 800 mm wide enclosures, attachment spacings of 23" and 24" are achieved. Either cranked or L-shaped, 482.6 mm (19") mounting angles may be used.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.

For enclosures		Model No. DK	
Width mm	Depth mm	Design	
		23"	24"
800	800	7827.823	7827.824
800	900	7827.923	7827.924
800	1000	7827.023	7827.024

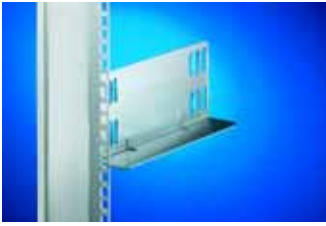
Delivery times available on request.

+ Accessories:

Mounting angles 482.6 mm (19"), cranked or L-shaped, see page 1091.

482.6 mm (19") installation

Slide rails



Slide rails

for TS mounting angles

With one-sided mounting on the 482.6 mm (19") mounting angles.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.

Length mm	Packs of	Model No. PS
185	10	4530.000
270	10	4531.000



Also required:

Mounting angles, 482.6 mm (19"), see page 1089.



Slide rails

for TS mounting angles

With two-sided mounting between the 482.6 mm (19") front and rear mounting angles or 482.6 mm (19") adaptor pieces.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.

For enclosure depth mm	Packs of	Model No. TS	Model No. PS
500	10	8613.150	–
600	10	8613.160	4546.000
800	10	8613.180	4549.000



Also required:

Mounting angles, 482.6 mm (19"), see page 1089.

Adaptor pieces, 482.6 mm (19"), see page 1090.



Slide rails, heavy-duty

for TS, FR(i), TE

With L-shaped mounting angles or 482.6 mm (19") mounting frame and a clearance between levels of 740 mm.

Easily and quickly installed thanks to locating brackets for the rear level.

Load capacity:

100 kg static load

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.



Distance between 19" levels mm	Contact surface		Packs of	Model No. DK
	Width mm	Depth mm		
740	50	734	2	7063.740

482.6 mm (19") installation

Slide rails



Slide rails, heavy-duty

for TS network enclosures with two 482.6 mm (19") levels

To support heavy installed equipment. The slide rails are simply located into the cranked mounting angles and secured with screws. The combined use with additional depth stays or, in case of 80 mm wide enclosures, with the additional fastening attachment counteracts possible bending of the mounting angles in case of unevenly distributed loads.

Load capacity:
80 kg, static load

Material:
Sheet steel, zinc-plated, passivated

Supply includes:
Assembly parts.

Note:
Not suitable for use in 482.6 mm (19") mounting frames.

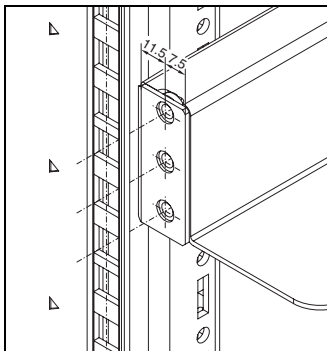
Distance between 19" levels mm	Contact surface		Packs of	Model No. DK
	Width mm	Depth mm		
298	55	261	2	7492.300
398	55	361	2	7492.400
498	55	461	2	7492.500
598	55	561	2	7492.060
698	55	661	2	7492.070

! Also required:

For fastening to L-shaped TS mounting angles:
Adaptor DK 7827.300,
see page 1023.

⇔ Possible alternative:

For mounting on the front and rear mounting angles:
Slide rail SR 1962.200,
see page 1085.



Slide rails, depth-variable, 1 U

for server and network enclosures with two 482.6 mm (19") mounting levels and L-shaped mounting angles

The slide rail is pulled out to the required length and secured between the front and rear mounting level. Rear location lugs and front screw-fastening enable convenient one-man assembly. The mounting component to be integrated is inserted horizontally onto the slide rail and optionally secured to the mounting level via its attachment slots.

Load capacity:
80 kg/150 kg, static load

Material:
Sheet steel, zinc-plated, passivated

Supply includes:
Assembly parts.

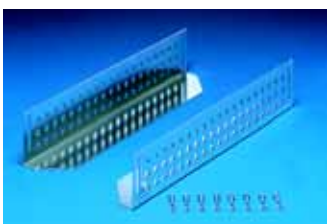
Length mm	Load capacity kg	Contact surface mm	Packs of	Model No. DK
390 – 600	80	50	2	7063.882
590 – 930	80	50	2	7063.883
590 – 930	150	25	2	7063.884

Note:

The super-slimline design of the slide rail allows it to be used in most integration cases for 482.6 mm (19") mounting components. Because it is secured to the standardised mounting level, it is manufacturer-independent.

The slide rail slightly reduces the installation space below the slide rail so that the U below it is only available for limited use.

Slide rails



Slide rails

for FR(i), TE and 482.6 mm (19") mounting frames

For mounting between a front and a rear pair of mounting angles. The slide rails can be used to support heavy 482.6 mm (19") components.

Load capacity:
80 kg, static load

Material:
Sheet steel, zinc-plated, passivated

Supply includes:
Assembly parts.

Distance between 19" levels mm	Contact surface		Packs of	Model No. DK
	Width mm	Depth mm		
395	85	324	2	7963.310
495	85	424	2	7963.410
595	85	524	2	7963.510
695	85	624	2	7963.610
795	85	724	2	7963.710

⇔ Possible alternative:

Slide rail, depth-variable,
see page 1098.

B
7.9

482.6 mm (19") installation

Slide rails/server integration



Slide rails

for EL

For the installation of heavy slide-in equipment.

Material:

Sheet steel, zinc-plated, passivated

For centre part depth mm	Packs of	Model No. EL
216	10	2240.000
316	10	2250.000
416	10	2260.000



Universal server installation kit, 482.6 mm (19")

for TS, FR(i)

The universal server installation kit is ideally suited for integrating most standard server types into Rittal enclosures with L-shaped mounting angles and a minimum enclosure depth of 900 mm. The installation kit is specially designed to ensure free access to the 482.6 mm (19") level, for securing the individual servers in the retracted position using the screws (M5) provided.

Distance between angles: 750 mm

For	Packs of	Model No. DK
all common server types	1 set	7063.100

Load capacity:

80 kg, static load

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.



Also required:

Mounting adaptor depending on the server type. For FR(i) and enclosures with two 482.6 mm (19") mounting frames: Installation kit DK 7063.102, see page 1099.



Mounting adaptor

The adaptors (additionally required) allow servers to be secured to the universal installation kit using the original installation kits supplied by the server manufacturers. The adaptor should be chosen according to the server type being installed. This specific mounting adaptor allows problem-free configuration of combined systems and facilitates flexible use of the individual enclosures in future.

For server types	Packs of	Model No. DK
With front 482.6 mm (19") server attachment	1 set	7063.110
With side attachment (SUN)	1 set	7063.120
With side attachment (HP rack system/E)	1 set	7063.130

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

1 set of mounting adaptors, sufficient for integration of an individual server, including assembly parts.



Installation kit

for FR(i) and 482.6 mm (19") mounting frames

This installation kit makes it possible to mount the universal server installation kit DK 7063.100 both in FR(i) server racks and on two 482.6 mm (19") mounting frames.

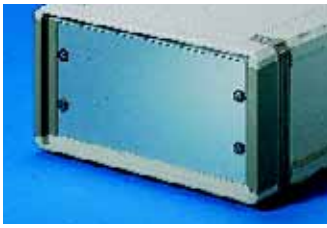
Material:

Sheet steel, zinc-plated, passivated

Packs of	Model No. DK
1 set	7063.102

482.6 mm (19") installation

482.6 mm (19")/metric installation

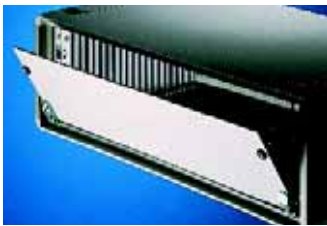


Blanking plate, 482.6 mm (19")

For the installation in electronic enclosures or housings.

Material:
Aluminium, natural-anodised

U	Packs of	Model No. VC	
		269.2 mm (1/2 19")	482.6 mm (19")
1	3	3746.000	1931.200
2	3	3747.000	1932.200
3	3	3748.000	1933.200
4	3	3749.000	1934.200
6	3	-	1936.200
7	3	-	1935.200
9	3	-	1939.200
12	3	-	1937.200



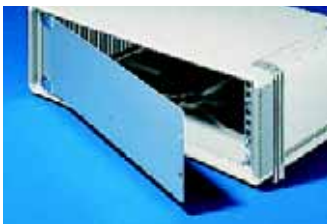
Blanking plate, horizontally hinged

For the installation in electronic enclosures or housings.

Material:
3 mm aluminium, natural-anodised
Hinge: Die-cast zinc, zinc-plated

Supply includes:
Assembly parts.

Width	U	Packs of	Model No. EL
482.6 mm (19")	3	1	1944.000
482.6 mm (19")	6	1	1945.000



Blanking plate, vertically hinged

For the installation in electronic enclosures or housings.

Material:
3 mm aluminium, natural-anodised
Hinge: Die-cast zinc, zinc-plated

Supply includes:
Assembly parts.

Width	U	Packs of	Model No. EL
482.6 mm (19")	3	1	1940.000
482.6 mm (19")	6	1	1941.000



Hinge for blanking plates

Material:
Die-cast zinc, zinc-plated

Supply includes:
Assembly parts.

Packs of	Model No. EL
2	1950.000

German patent no. 40 04 264

482.6 mm (19")/metric installation



Ventilation front panels

For venting enclosures and cases.

Material:
Aluminium, natural-anodised

Width	U	Packs of	Model No. EL
482.6 mm (19")	1	3	2231.000
482.6 mm (19")	2	3	2232.000
482.6 mm (19")	3	3	2233.000

482.6 mm (19") installation

482.6 mm (19")/metric installation



Infill panel, hinged

for 800 mm wide TS network enclosures

To cover the side cable chamber. The infill panel is attached to the vertical enclosure frame at the front. The generous curved design will conceal even large quantities of cables, and facilitates combined use with large-scale shunting rings DK 7220.600.

The infill panel has a hinged design and allows easy access to the cabling level by simply swinging it out. Locating points keep the panel in its open and closed state.

With an offset 482.6 mm (19") mounting level the panel may likewise be offset in the enclosure depth and secured to TS punched sections with mounting flange on the inner mounting level. For mounting the 482.6 mm (19") attachment level in front-most mounting position, version with straight trim panel.

Material:

Sheet steel, spray-finished in RAL 7035

Supply includes:

Assembly parts.



For installation height U	Packs of	Model No. TS	
		Trim panel curved	Trim panel straight
33	2	7827.530	–
38	2	7827.532	7827.518¹⁾
42	2	7827.534	7827.520
47	2	7827.536	7827.522¹⁾

¹⁾ Delivery times available on request.

+ Accessories:

TS punched section with mounting flange 17 x 73 mm for the inner mounting level, see page 993 – 994.

PS punched section without mounting flange, 23 x 73 mm, see page 998.

Note:

The installation of depth stays, e.g. DK 7827.600/.800 is not possible.



Brush strip, vertical

for TS, TE

Within the network distributor, this serves as a flexible infill panel which stylishly conceals the cable management area to the side of the 482.6 mm (19") mounting level. The brush strip facilitates convenient cable routing from the side and rear distributor area to the front connection level. The clearance required in front of the mounting level is at least 75 mm.

Within the TS, the brush strip is mounted at the side on the vertical frame section, on horizontal or vertical punched sections. It may also be mounted directly on the mounting level of the TS or TE 7000. For direct mounting on the 482.6 mm (19") mounting frame of the TS or TE, the brush strip should be cut to length accordingly.

Material:

Aluminium section with brush strip:
Plastic, UL 94-V0

Supply includes:

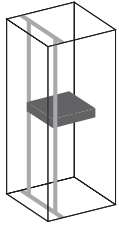
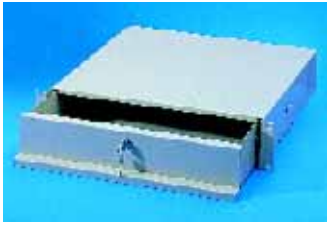
1 set = 4 brush strips,
length 950 mm each.



For enclosure height mm	Packs of	Model No. DK
2000	1 set	7827.544

482.6 mm (19") installation

482.6 mm (19")/metric installation



Drawer, 2 U, 3 U

for a 482.6 mm (19") attachment level

For front attachment to mounting angles, 482.6 mm (19"). With cover and telescopic slides to accommodate assignment lists, operating manuals and small parts. The small version of the 2 U variant is also suitable for mounting inside a swing frame.

Material:
Sheet steel

Colour:
RAL 7035

Supply includes:
Fully assembled,
including assembly parts.

Height	Clearance openings		Installation depth mm	Model No. DK
	Width mm	Depth mm		
2 U	411	244	250	7282.135
2 U	411	419	427	7282.035
3 U	411	419	427	7283.035



Drawer for 482.6 mm (19")

with shelf

For keyboards, operating manuals etc. The perforated plate in the base helps air to circulate in the enclosure. Load capacity 50 kg. The 1 U drawer can be installed rotated through 180°, allowing it to be used as a utility table.

Material:
Drawer: Aluminium, anodised
Telescopic slides:
Sheet steel, zinc-plated, passivated

Supply includes:
Telescopic slides.

U	Model No. PS
1	4541.000
3	4542.000

! Also required:

Installation kit, corresponding to the chosen enclosure system or depth-variable installation kit, see page 1102.

482.6 mm (19")/metric installation



Installation kit

for component shelves and drawers, with 482.6 mm (19") installation in TS, ES

For installation between the front and rear adaptor sections or adaptor pieces, 482.6 mm (19") in 600 mm wide enclosures.

Material:
Sheet steel, zinc-plated, passivated

Supply includes:
Assembly parts.

For enclosure depth mm	Packs of	For enclosure system	
		TS	ES
		Model No. TS	Model No. PS
500	1 set	8800.550	–
600	1 set	8800.560	4544.000
800	1 set	8800.580	–

! Also required:

Mounting angles, 482.6 mm (19") or adaptor pieces, 482.6 mm (19"), see page 1090.



Installation kit, depth-variable for 482.6 mm (19") component shelves and drawers

Depending on the distance between the two 482.6 mm (19") mounting levels, the installation kit is screw-fastened in the depth between the cranked or L-shaped mounting angles.

Material:
Sheet steel, zinc-plated, passivated

Supply includes:
Assembly parts.

Distance between 19" levels mm	Packs of	Model No. DK
550 – 850	2	7063.850

German patent no. 197 10 023

B
7.9

482.6 mm (19") installation

482.6 mm (19")/metric installation



Adaptor, 3 U

Depth offset 100 mm

This adaptor is used to recess 482.6 mm (19") mounting of equipment inside enclosures with 19" installation in the foremost position, such as server or electronic enclosures. In this way, sufficient space can be gained in front of the mounting equipment to integrate patch panels or switches, whilst at the same time exploiting the maximum enclosure depth.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.

Packs of	Model No. DK
2	7246.400



Mounting kit, 2 U

for 482.6 mm (19") equipment

Facilitates fast, simple integration of additional 2 U mounting space within an enclosure by attaching to the enclosure frame or to the existing mounting angles at the sides. The flexible slot fastening of the brackets means that the distance between the two installation brackets may be freely selected, so that other 482.6 mm (19") attachment dimensions may be implemented. The second row of holes is used for the optional configuration of additional mounting surfaces.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.

Packs of	Model No. DK
2	7246.420



Adaptor, metric to 482.6 mm (19"), 21"/19"

With this adaptor, 482.6 mm (19") assemblies may be fastened to metric (535 mm) mounting angles, or combined systems may be configured.

Material:

Extruded aluminium section

Supply includes:

Assembly parts.

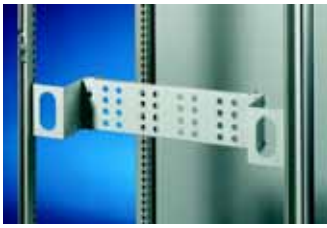
SU	U	Packs of	Model No. DK
2	1	2	7246.010
6	3	2	7246.030
11	6	2	7246.060

482.6 mm (19")/metric installation

B
7.9

482.6 mm (19") installation

482.6 mm (19")/metric installation



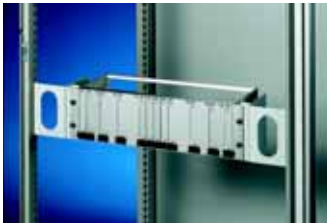
Adaptor kit 3 U

for 800 mm wide TS enclosures

For fastening individual 482.6 mm (19") components, or as an additional mounting facility at the rear of the enclosure. The mounting level in the adaptor angle can be adjusted by 100 mm in the depth, leaving sufficient space for baying where patch panels or splicing boxes are used.

Material:
Sheet steel

Colour:
RAL 7035



Height	Mounting position	Model No. DK
3 U	central	7246.100

! Also required:

Adaptor rail, see page 997 or assembly block, see page 997.



Mounting frame 54 U

for TS, FR(i)

The mounting frame allows configuration of a side-offset 482.6 mm (19") level with 42 U useful installation space plus the additional integration of a further 12 U for vertical installation. The additional side extension is divided into three installation levels arranged on top of one another, each with 4 U.

The mounting frame may be installed at either the front or rear.

Material:
Sheet steel

Colour:
RAL 7035

Supply includes:
12 U mounting trim at the side.

For enclosures		Additional vertical installation area	Model No. DK
Width mm	Height mm		
800	2000	12 U	7827.554

Delivery times available on request.

! Also required:

Mounting angles, 482.6 mm (19"), see page 1091.

482.6 mm (19")/metric installation



Spring nuts with screws

M6 x 10 mm for T-slot mounting angle

The spring nuts ensure flexible, secure mounting of accessory components on the T-slot of the FR(i) frame and on the T-slot mounting angles.

Supply includes:
50 spring nuts,
50 screws, 10 mm, self-locking.

Design	Packs of	Model No. DK
Phillips-head, M6	50	7000.990

482.6 mm (19") installation

482.6 mm (19")/metric installation



Assembly screws

M5 x 16 mm/M6 x 16 mm

For electronic equipment, 482.6 mm (19") installed components and blanking plates.

Supply includes:

Plastic washers.

Design	Packs of	Model No. EL
Phillips-head screw M5	100	2099.500
Cheese-head screw M6	100	2093.200
Phillips-head screw M6	100	2089.000



Multi-tooth screws

M5 x 16 mm/M6 x 16 mm

For optimum transmission of torques, an extended tool life and increased safety and reliability when tightening and loosening screw connections.

Supply includes:

Plastic washers.

	Bit size	Packs of	Model No. DK
M5	Multi-tooth 25	100	7094.500
M6	Multi-tooth 30	100	7094.600



Captive nuts M5/M6

For the attachment of rack-mounted electronic equipment, 482.6 mm (19") installed equipment and blanking plates to mounting angles, 482.6 mm (19").

For use with metal thickness from 0.8 – 2.0 mm. In areas of narrow tolerance, captive nuts for metal thicknesses of 1.2 – 1.5 mm should be used. Optionally with or without contact of the installed equipment to the 482.6 mm (19") section/ enclosure.



Captive nut M5

Design	For metal thicknesses mm	Packs of	Model No. EL
With contact	0.8 – 2.0	50	2094.500
Without contact	0.8 – 2.0	50	2092.500

Captive nut M6

Design	For metal thicknesses mm	Packs of	Model No. EL
With contact	0.8 – 2.0	50	2094.200
Without contact	0.8 – 2.0	50	2092.200
With contact	1.2 – 1.5	50	2094.300
Without contact	1.2 – 1.5	50	2092.300



Cage nut – front mounting, 482.6 mm (19")

The cage nut consists of an expanding nut which is simply inserted into the square attachment hole at the front and then secured with the assembly screw.

When tightening the screw, the cage expands and thus secures the required components. Clamping range from 1.2 – 4.5 mm. Multi-tooth screw head, bit size T 30.

Material:

Sheet steel

Dimensions mm	Size of mounting hole mm	Packs of	Model No. DK
M6 x 16	9.5 x 9.5	50	2094.400

Surface finish:

Zinc-plated, passivated

Supply includes:

50 expanding nuts including assembly screws and plastic washers.

482.6 mm (19")/metric installation

B
7.9

482.6 mm (19") installation

Patch panels for copper technology



Patch panels

With slots, prepared for cable clamping with cable ties SZ 2597.000.

Design:

Suitable for direct attachment on mounting plates and, by using mounting clip SZ 2309.000, also on support rails.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.



Accessories:

Mounting clip SZ 2309.000, see page 1002.
Cable tie SZ 2597.000, see page 1066.

Manufacturer	Usable modules	Packs of	Model No. IN		
			1 slot	2 slots	8 slots
ADC KRONE	RJ 45 KM8 STP	1	–	2203.260	2203.270
BTR	RJ 45 E-DAT module 8 (8) Cat. 6	1	–	2203.200	2203.210
Corning Cable Systems	RJ 45 FutureCom™ S250 module	1	–	2203.220	2203.230
Dätwyler	RJ 45 unilan® module MS 1/8 Cat. 6	1	–	2203.200	2203.210
Reichle & De-Massari (R&M)	RJ 45 connection module Cat. 5e and Cat. 6, fibre-optic couplings SC-RJ and E2000™ Compact (via module recess)	1	2203.110	2203.120	2203.160
Tyco Electronics Corporation (AMP NETCONNECT)	RJ 45 SL series (Toolless Jacks, 110Connect Jacks, AMP-TWIST-6S Jacks)	1	–	2203.240	2203.250

FutureCom is a brand name of Corning Cable Systems Brands, Inc.

unilan is a registered trademark of Dätwyler Kabel+Systeme.

AMP NETCONNECT and AMP-TWIST are brand names of Tyco Electronics Corporation.



Top-hat rail module

Top-hat rail module with mounting clip for top-hat rails to DIN 50 002, robust metal housing, with strain relief.

Cat. 6, 2 x RJ 45, System Corning Future Com S 250 (cables are attached without the use of tools).

Design	Cat.	Packs of	Model No. DK
2 x Corning Future Com S 250	6	3	7870.614

Data distributors

LSA-plus system

1 U (1/2 19") 42 HP

8 x RJ 45 jacks, shielded, cover with quick-release fastener, with strain relief and earth connection.

1 U (19") 84 HP

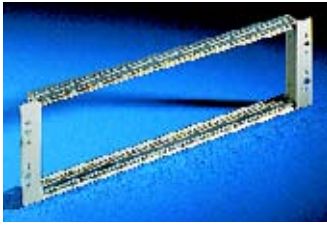
24 x RJ 45 jacks, shielded, cover with quick-release fastener, with strain relief and earth connection.



Design	HP	Cat.	Packs of	Model No. DK
8 ports, UTP, RJ 45/LSA, including 8 patch cables 0.25 m, yellow	42	6	1	7870.822
24 ports, STP, RJ 45/LSA, including 12 patch cables 0.6 m, yellow	84	6	1	7870.830

482.6 mm (19") installation

Patch panels for copper technology



Module panel, 482.6 mm (19") 3 U/84 HP

To accommodate various partial front plates and hence for individual assembly of a patch panel with any given combination of data connectors and couplings. The useful width is 84 HP.

Material:
Aluminium

Colour:
RAL 7035

Supply includes:
Two 482.6 mm (19") flanges,
2 horizontal rails
including 2 tapped strips.

Packs of	Model No. DK
1	7330.035

! **Also required:**

Partial front plates,
see page 1108.



Partial front plates

To accommodate various data connectors and couplings in the module panel DK 7330.035.

Material:
Sheet steel

Colour:
RAL 7035

For socket/coupling	Number of locations	HP	Packs of	Model No. DK
ST	4	4	2	7334.035 ¹⁾
BNC-E	4	6	2	7339.035
D-Sub 9-pole	3	4	2	7342.035
D-Sub 15-pole	2	4	2	7343.035
D-Sub 25-pole	1	4	2	7344.035
RJ 11 – 45	4	8	2	7349.035 ¹⁾
Filler panel	–	4	2	7355.035
Filler panel	–	6	2	7356.035 ¹⁾
Filler panel	–	8	2	7357.035 ¹⁾
Filler panel	–	24	1	7359.035 ¹⁾

Other versions available on request.

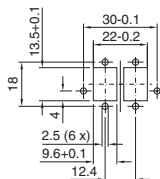
¹⁾ Extended delivery times.

Note:

For drawings of the cut-outs,
see page 1107, 1109.

482.6 mm (19") installation

Patch panels for fibre-optic technology



To accommodate E-2000, E-2000 duplex or SC fibre-optic couplings

For 1 U with accommodation facility for cable clamp straps DK 7610.000 or DK 7611.000.

Material:
Sheet steel

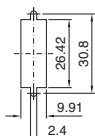
Colour:
RAL 7035

U	Number of locations single/duplex	Model No. DK
1	16/8	7433.035

Other versions available on request.

+ Accessories:

Cable clamp strap DK 7610.000 or DK 7611.000, see page 1070.



To accommodate SC duplex fibre-optic couplings

With accommodation facility for cable clamp straps DK 7610.000 or DK 7611.000.

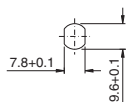
Material:
Sheet steel

Colour:
RAL 7035

U	Number of locations	Model No. DK
1	12	7154.035
2	24	7155.035

+ Accessories:

Cable clamp strap DK 7610.000 or DK 7611.000, see page 1070.



To accommodate ST fibre-optic couplings

With accommodation facility for cable clamp straps DK 7610.000 or DK 7611.000.

Material:
Sheet steel

Colour:
RAL 7035

U	Number of locations	Model No. DK
1	16	7437.035
2	24	7137.535
2	32	7637.035 ¹⁾

¹⁾ Extended delivery times.
Other versions available on request.

+ Accessories:

Cable clamp strap DK 7610.000 or DK 7611.000, see page 1070.



Panel 1 U, 482.6 mm (19") with solid tray

For the storage of fibre-optic coupling covers or assembly parts.
Depth: 100 mm

Material:
Sheet steel

Colour:
RAL 7035

U	Model No. DK
1	7300.335

482.6 mm (19") installation

Patch panels



Blanking panel, 482.6 mm (19")

As an extension cover or for population as required.

Material:
Sheet steel

U	Installation height mm	Packs of	Model No. DK	
			RAL 7035	RAL 9005
1	44	2	7151.035	7151.005
1,5	66	2	7157.035	–
2	88	2	7152.035	7152.005
3	132,5	2	7153.035	7153.005¹⁾
6	266	2	7156.035	7156.005¹⁾

¹⁾ Delivery times available on request.



Blanking panel, 1 U

Toolless attachment, 482,6 mm (19")

The blanking panel is used to seal unused areas within the 482.6 mm (19") mounting level. Quick toolless attachment means that it is easily integrated anywhere, and can also be removed again if necessary. Thanks to the consistent use of blanking panels, targeted air routing can be ensured in partially configured racks.

Colour	Packs of	Model No. DK
RAL 7035	10	7151.110
RAL 9005	10	7151.105

Material:
Plastic

Supply includes:
10 blanking panels with integral quick-fastening.



Identification strips

for patch panels

For individual labelling of different slots, self-adhesive.
Length: 210 mm, height: 10 mm.

Packs of	Model No. DK
32	7167.000



Splicing cassette holder

To accommodate differently sized splicing cassettes with variable cassette accommodation. Up to 8 splicing cassettes may be fitted in one holder. The splicing cassette holder can be flexibly secured to any mounting surface, and is particularly suitable for retro-fitting for small fibre-optic distributors without patch panels. One extra holder may be fitted in small fibre-optic distributor DK 7452.035 → max.: 16 splicing cassettes. Two extra holders may be fitted in small fibre-optic distributor DK 7453.035 → max.: 32 splicing cassettes.

Overall height mm	Height		Model No. DK
	Threaded bolts mm		
93	85		7450.035

Material:
Sheet steel

Colour:
RAL 7035

Supply includes:
Holder with threaded bolts, variable angle bracket, cassette cover, knurled nut and assembly parts.



Fibre-optic splicing box, depth-variable

The 482.6 mm (19") splicing box is designed to accommodate splicing cassettes and can be installed in any network distributor with 482.6 mm (19") accommodation and used as a fibre-optic termination or distributor. The variable cassette fixture permits twist-proof installation of all standard splicing cassettes. The rear section of the splicing box is completely open for cable entry; a rubber cable clamp strip provides protection against dust. The fibre-optic cables can be secured with cable ties or cable clamps. The splicing box is infinitely depth-adjustable up to 100 mm within the 482.6 mm (19") flanges. In addition, the splicing box may be fully withdrawn from the 482.6 mm (19") flanges. Two strain relief clips and cable routing clips for the fibre stock provide a solution to suit any fibre-optic wiring system.

U	Maximum no. of splicing cassettes	Model No. DK
1	2	7241.005
2	4	7242.005

Other versions available on request.

German patent no. 196 08 385

Installation depth:
302 mm

Material:
Sheet steel

Colour:
RAL 7035

Supply includes:
Splicing box, cable routing clips and cassette cover and assembly parts for patch panel.

Note:
Supplied without patch panel and splicing cassettes.



Patch panels for fibre-optic splicing box, depth-variable

There is a choice of 9 panels with appropriate cutouts for the installation of various fibre-optic couplings, together with 2 blanking panels for individual population or as a cover. The patch panels are fastened to the splicing box with quick-release fasteners.

Material:
Sheet steel

Colour:
RAL 7035

For coupling	Number of locations	Model No. DK 1 U	Number of locations	Model No. DK 2 U
ST	12	7241.015	24	7242.015
	16	7241.065		
E-2000, E-2000 Duplex ²⁾ or SC	24	7241.024	-	-
SC duplex	12	7241.045	24	7242.045¹⁾

¹⁾ Extended delivery times.
²⁾ For E-2000 Duplex only half of the locations are available. Other designs available on request.

482.6 mm (19") installation

Splicing boxes



Fibre-optic splicing box with telescopic pull-out

lockable

The 482.6 mm (19") splicing box is designed to accommodate splicing cassettes and can be installed in any network distributor with 482.6 mm (19") accommodation and used as a fibre-optic termination or distributor. The telescopic pull-out provides optimum access to the splicing cassettes and cable clamp. The variable cassette fixture permits twist-proof installation of all standard splicing cassettes. The security lock fitted at the front protects against unauthorised access. The rear section of the splicing box is completely open for cable entry; a rubber cable clamp strip provides protection against dust. The fibre-optic cables can be secured with cable ties or cable clamps; two strain relief clips and cable routing clips for the fibre stock provide a solution to suit any fibre-optic wiring system.

U	Maximum no. of splicing cassettes	Model No. DK
1	2	7170.535
2	4	7470.535
3	6	7570.535¹⁾

Other versions available on request.

¹⁾ German patent no. 44 13 136

Installation depth:

363 mm

Material:

Sheet steel

Colour:

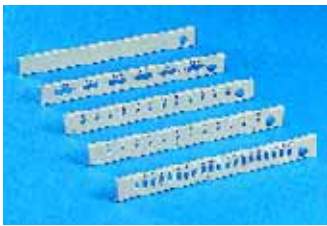
RAL 7035

Supply includes:

Splicing box, cable routing clips, security lock and cassette cover and assembly parts for patch panel.

Note:

Supplied without patch panel and splicing cassettes.



Patch panels

for fibre-optic splicing box, lockable

There is a choice of 20 panels with appropriate cut-outs for the installation of various fibre-optic couplings, together with 3 blanking panels for individual population or as a cover.

Material:

Sheet steel

Colour:

RAL 7035

For coupling	Number of locations	Model No. DK 1 U	Number of locations	Model No. DK 2 U	Number of locations	Model No. DK 3 U
DIN 47 256	12	7173.535¹⁾	–	–	–	–
ST	12	7174.535	24	7474.535	48	7574.535
	16	7174.135¹⁾				
FC-PC	12	7175.535¹⁾	–	–	–	–
E-2000, E-2000 Duplex ²⁾ or SC	20	7178.535	24	7478.535	48	7578.535
SC duplex	12	7169.535	24	7469.535	–	–
Blanking panel	–	7179.535	–	–	–	–

¹⁾ Delivery times available on request.

²⁾ For E-2000 Duplex only half of the locations are available. Other designs available on request.



Blanking cover

for fibre-optic cut-outs

To cover unused cut-outs in patch panels.

Material:

Plastic PA 6.6

Colour:

Black

	Packs of	Model No. DK
SC, E-2000	20	7300.230
E-2000 Duplex	20	
SC duplex	20	7300.240
ST	20	7300.250



Fibre-optic breakout box 1 U

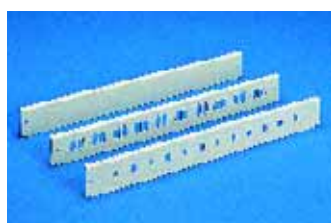
For splice-free cabling of fibre-optic breakout cables. Cable bundles may be clamped on the hammer heads at the rear. 4 self-adhesive cable clips are supplied loose for cable clamping and for storing excess lengths inside the box.

Material:
Sheet steel

Colour:
RAL 7035

Supply includes:
Breakout box, cable routing clips, assembly parts for patch panel.

Installation depth	Model No. DK
250 mm	7241.500



Patch panels

for fibre-optic breakout box 1 U

There is a choice of 5 panels for the breakout box with appropriate cut-outs for the installation of various fibre-optic couplings, together with 1 blanking panel for individual population or as a cover.

Material:
Sheet steel

Colour:
RAL 7035

For coupling	Number of locations	Model No. DK
ST	12	7241.015
ST	16	7241.065
E-2000, E-2000 Duplex ²⁾ or SC	24	7241.024
SC duplex	12	7241.045
Blanking panel	-	7241.055 ¹⁾

¹⁾ Delivery times available on request.

²⁾ For E-2000 Duplex 10 locations are available. Other designs available on request.



Fibre-optic splicing distributor

Unlike the splicing box, the splicing distributor may optionally be installed inside or outside of network distribution enclosures.

The splicing distributor is designed to accommodate fibre-optic splicing cassettes. These are mounted individually between mounting trays which can be stacked on top of one another as required. Strain relief for the cables and individual fibres is provided by cable ties.

The basic unit can accommodate up to 2 additional packs of 4 extension units DK 7381.035.

Dimensions:
W x H x D: 190 x 250 x 90 mm

Threaded bolts:
75 mm



	Model No. DK
Fibre-optic splicing distributor	7380.035

German patent no. 40 08 840

Material:
Sheet steel

Colour:
RAL 7035

Supply includes:
Base including one pair of mounting trays, lid and assembly parts.



Fibre-optic splicing distributor extension unit

Additional pairs of mounting trays, each of which can accommodate one splicing cassette and the fibre stock, are used to extend the splicing distributor.

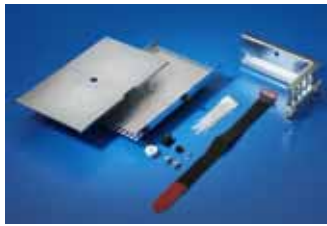
Material:
Sheet steel

Colour:
RAL 7035

Packs of	Model No. DK
2	7381.035

482.6 mm (19") installation

Splicing boxes/LSA connection system



Fibre-optic splicing cassette support

To accommodate up to 4 splicing cassettes to DIN 47 662.

The cassettes may be removed individually, to avoid damaging intact connections during maintenance work.

May be installed in two positions on the mounting plate or on punched sections, to ensure space-saving integration.

There is plenty of space for buffered fibres. Strain relief of buffered fibres and cable pigtailed may be provided from above and below using cable ties.



	Packs of	Model No. IN
Holder and support for 1 splicing cassette (maximum configuration: 4 supports)	1	2203.300
Support for 1 splicing cassette (extension)	1	2203.310

Dimensions:

W x H x D: 104 x 250 x 165 mm

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.



Fixture with rods, 3 U for LSA strips

To accommodate 15 LSA profile dividing strips 2/10 on 2 rods, Ø 12 mm.

The fixture unit may be integrated in all 482.6 mm (19") mounting levels. With cable clamp rail at the rear.

Dimensions:

W x H x D:
482.6 mm (19") x 132.5 mm (3 U) x 180 mm

U	Model No. DK
3	7050.200

Material:

Side panels: Aluminium plates
482.6 mm (19") side panels/horizontal rail:
Extruded aluminium section

Supply includes:

Fixture with rods as modular system.



Support unit, 3 U

for LSA-Plus strips, max. 150 paired wires

To accommodate a maximum of 15 LSA-Plus strips (each with 10 paired wires). 3 x 5 LSA-Plus connection strips 2/10, series 2, may be installed horizontally. Strip length 124 mm, height pitch pattern 22.5 mm. The support unit may be integrated in all 482.6 mm (19") mounting levels.

The mounting level is recessed 75 mm behind the 482.6 mm (19") flanges. Integral shunting rings enable tidy routing and distribution of the telecommunication cables.

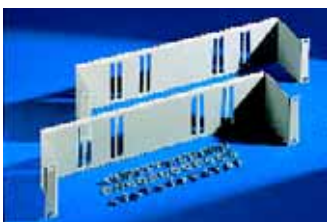
U	Model No. DK
3	7050.100

Material:

Stainless steel

Supply includes:

Support unit, 8 shunting rings.



Accommodation system, 2 U for LSA installation kit

To accommodate LSA mounting troughs/cable retainers on the 482.6 mm (19") mounting angle.

Dimensions:

Total depth: 98.5 mm
Height: 2 U

Material:

Sheet steel

Colour:

RAL 7035

U	Packs of	Model No. DK
2	2	7050.035



Accessories:

FM universal mounting bracket, see page 861.





Handle set

for Comfort Panel

For external mounting on corner pieces, also suitable for retro-fitting.

Material:

Handle tube: Aluminium, natural-anodised
 Handle holder: Die-cast zinc, powder-coated in RAL 7024
 Covers: Polyamide, similar to RAL 7024

Note:

Shorter heights and widths can be achieved by cutting the handle tube to length.

For enclosures with 74 mm depth, cannot be mounted on the same side as the

- Support arm connection.



Accessories:

Clipboard, display board
 see page 1118.



For horizontal mounting

With front panel width	Packs of	Model No. CP
482.6 mm (19")	1 set	6375.010
As specified	1 set	6375.019¹⁾

Supply includes:

Handle tube, Ø 20 mm,
 2 handle holders,
 2 covers,
 Assembly parts.

For vertical mounting

With front panel height	Packs of	Model No. CP
7 U	1 set	6375.020
As specified	1 set	6375.029¹⁾

¹⁾ Please additionally state when ordering:
 – Number/dimensions of front panel
 – Number of cross members

Supply includes:

2 handle tubes, Ø 20 mm,
 4 handle holders,
 4 covers,
 assembly parts.



Handle set

for Optipanel

For external mounting on corner pieces, also suitable for retro-fitting.

Material:

Handle tube: Aluminium, natural-anodised
 Handle holder: Die-cast zinc, powder-coated in RAL 7035
 Covers: Polyamide, RAL 7024

Note:

Shorter heights and widths can be achieved by cutting the handle tube to length.

For enclosures with 100 mm depth, cannot be mounted on the same side as the support arm connection.



Accessories:

Clipboard, display board
 see page 1118.



For horizontal mounting

With front panel width	Packs of	Model No. CP
482.6 mm (19")	1 set	6385.010
As specified	1 set	6385.019¹⁾

Supply includes:

Handle tube, Ø 25 mm,
 2 handle holders,
 2 covers.

For vertical mounting

With front panel height	Packs of	Model No. CP
7 U	1 set	6385.020
As specified	1 set	6385.029¹⁾

¹⁾ Please additionally state when ordering:
 – Number/dimensions of front panel
 – Number of cross members/sealing bars
 – Order number of enclosure

Supply includes:

2 handle tubes, Ø 25 mm,
 4 handle holders,
 4 covers.

Human/machine interface

Handles, external mounting accessories



Handle set VIP

for VIP 6000 with wide frame

For mounting on the corner connectors of the enclosure frame.

Material:

Handle tube:
Extruded aluminium section, natural-anodised
Handle holder:
Die-cast zinc, powder-coated in RAL 7035

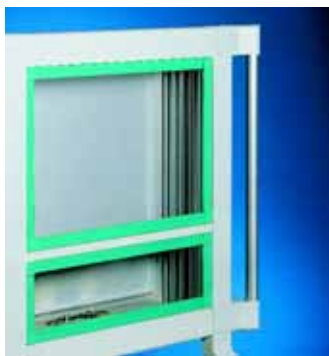
Note:

Shorter heights and widths can be achieved by cutting the handle tube to length.



Accessories:

Clipboard, display board
see page 1118.



For horizontal mounting

With front panel width	Packs of	Model No. CP
482.6 mm (19")	1 set	6101.000
As specified	1 set	6101.009¹⁾

Supply includes:

2 handle holders,
1 handle tube,
2 screws.

For vertical mounting

With front panel height	Packs of	Model No. CP
7 U	1 set	6102.000
As specified	1 set	6102.009¹⁾

¹⁾Please additionally state when ordering:

- Number and dimensions of front panel
- Number of cross members/sealing bars
- Order number of your enclosure

Supply includes:

Packs of 4 handle holders,
2 handle tubes,
4 screws.



Handle set

For vertical and horizontal mounting on all surfaces.
Overall length: 420 mm.

Material:

Handle tube: Aluminium, natural-anodised
Conduit holder: Die-cast zinc, RAL 7035

Supply includes:

1 set =
4 conduit holders,
2 handle tubes.

Packs of	Model No. SZ
1 set	2389.000



Accessories:

Clipboard, display board
see page 1118.



Handle frame

for operating housing with display panel front

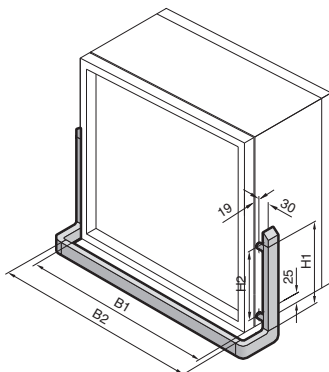
For operating housing with display panel front	CP 6442.500 CP 6462.500	CP 6552.500	CP 6662.500
Model No. CP	6191.000	6192.000	6190.000
Operating housing width (B1) mm	380	500	600
Width of the horizontal rectangular tube (B2 = B1 + 48) mm	428	548	648
Height of the vertical rectangular tube (H1) mm	345	465	299
Hole distance between the assembly holes (H2) mm	295	415	249

Colour:

RAL 8019

Supply includes:

Rectangular aluminium tube,
plastic corner bracket,
end caps,
assembly parts.



Handles

For horizontal or vertical attachment to the enclosure panel of:

- Comfort Panel,
- VIP 6000 with combined or narrow front frame,
- Optipanel,
- other enclosures or
- surfaces.

Mounting holes and surfaces without fins are required for assembly purposes. For the VIP 6000 version with fins, corresponding milling work may be carried out. With the operating/keyboard housing, please specify "Prepared for handle set CP 6107.XXX".

Material:

Handle holder: Die-cast zinc, RAL 7035
 Cover bungs: Plastic, similar to RAL 7035
 Handle tube: Aluminium, powder-coated similar to RAL 9006

German patent no. 19 937 966

French patent no. 2 797 555

Italian patent no. 0 131 8210

US patent no. 6,507,978

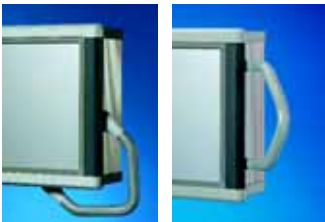


Corner handle

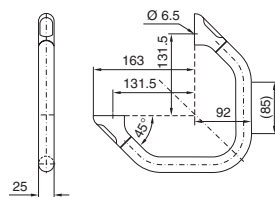
Supply includes:

4 handle holders,
 2 handle tubes,
 assembly parts.

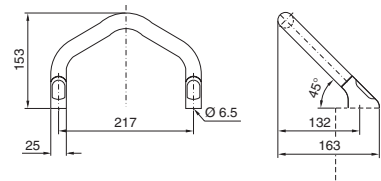
Packs of	Model No. CP
1 set	6107.000



Mounting on enclosure corner



For external mounting on straight surfaces
 (90° rotation of handle holder)

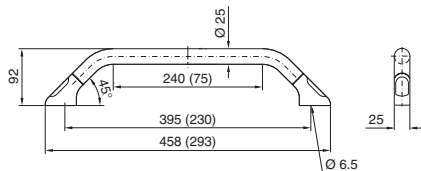


U handle

Supply includes:

2 handle holders,
 1 handle tube,
 assembly parts.

For front panel size	Packs of	Model No. CP
≥ 7 U	1 set	6107.100
482.6 mm (19")	1 set	6107.200



Note:

Dimensions in brackets for CP 7 U.



Accessories:

For CP 6107.200:
 Clipboard, display board
 see page 1118.



Display board with wall bracket

see page 1118.

Human/machine interface

Handles, external mounting accessories/connection components



Clipboard

For securing operating instructions or plans (A4 size) at eye level. Prepared for mounting on the right-hand side; mounting on the left is also possible by unscrewing and moving the clip part. For mounting purposes, a straight tube length of ≥ 200 mm, $\varnothing 20$ mm or $\varnothing 25$ mm, is required.

Material:

Sheet steel, RAL 7035
Clip: Aluminium, natural-anodised.

Width mm	Height mm	Model No. CP
225	315	6013.000

Clipboard in conjunction with Command Panel VIP 6000:

European patent no. 0 839 093 with validity for DE, FR, GB, IT



Also required:

Handle set SZ 2389.000, see page 1116
or
Handle set for Comfort Panel, see page 1115
or
Handle set for VIP 6000, see page 1116
or
Handle set for Optipanel, see page 1115
or
U handle CP 6107.200, see page 1117.



Display board with wall bracket

To accommodate test plans, documents etc. in A4 format.

Installation:

- On surfaces,
- On a 25 mm pitch pattern of the TS frame or rail system,
- On handle set $\varnothing 20$ mm or $\varnothing 25$ mm.

Supply includes:

10 display boards, wall brackets and assembly parts.

Packs of	Model No. CP
1 set	6013.100



Accessories:

Handle set SZ 2389.000, see page 1116
or
Handle set for Comfort Panel, see page 1115
or
Handle set for VIP 6000, see page 1116
or
Handle set for Optipanel, see page 1115
or
U handle CP 6107.200, see page 1117.



Enclosure surface connector

To accommodate:

- Support for keyboards (SM 2383.000)
- Optipanel keyboard housing for front panel width = 482.6 mm (19") CP 6384.009. Please state front panel height and installation depth (50 or 100 mm) in addition to Model No.

Material:

Extruded aluminium section, natural-anodised, Side cover, sheet steel RAL 7024.

Supply includes:

Assembly parts.

Packs of	Model No. SM
1 set	2383.010

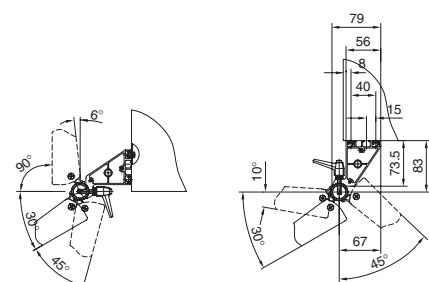
Note:

Other widths available on request.



Mounting on surfaces

Mounting underneath surfaces





Enclosure duct connector

for Comfort Panel and VIP 6000

To fit

- Comfort Panel in conjunction with the switch housing 74 mm and 113 mm deep.
- VIP 6000 with narrow and combined frames in conjunction with the keyboard housing 105 mm deep.

The angle between the operating and keyboard housing is 120°.

At the same time, the duct connector is used for cable routing from the operating housing to the keyboard housing.

Material:

Aluminium

Colour:

RAL 7035

Supply includes:

Assembly parts.

Weight kg	Packs of	Model No. CP
2.0	1 set	6006.000

Delivery times available on request.

Note:

When retro-fitting, appropriate mounting holes and cut-outs must be made in the operating and keyboard housings for assembly purposes.



Cable tube, flexible

for VIP 6000

Suitable for cable routing from the operating housing to the keyboard housing.

Suitable for use with

- Frame connector, adjustable
- Hinged frame connector
- Frame connector, rigid
- Enclosure bar connector

May be mounted on the following keyboard housings:

- Keyboard housing: 105 mm
- Keyboard housing: 44 mm
- Keyboard housing: 27 mm with connection for flexible cable conduit (design 4.1, see page 223).

Corresponding cut-outs are required for connecting the cable tube in the operating and keyboard housing.

A cable tube is included with the supply to selection 4.5, see page 226.

Colour:

RAL 7035

Supply includes:

Assembly parts.

For keyboard housings	Model No. CP
CP 6351.009, design 4.1, 2 and 4	6017.100
Others	6017.000



Front panels

for Comfort Panel, VIP 6000 and Optipanel

Material:

3 mm aluminium, natural-anodised

Note:

If more than one front panel is used cross members are required, see page 1122.

Width mm	Height mm	Model No. CP	
		with mounting hole	with threaded bolts M5
482.6 (19")	155.0 (3.5 U)	6027.000	6027.010
482.6 (19")	310.3 (7 U)	6028.000	6028.010



Also required:

Mounting kit for Comfort Panel CP 6053.800, see page 1122, for VIP 6000 and Optipanel CP 6053.000/.500, see page 1121.



Rittal service:

Other sizes and versions with threaded bolts, cut-outs and engravings available on request.

Human/machine interface

Front assembly



Front panels for Optipanel CP 6380.100

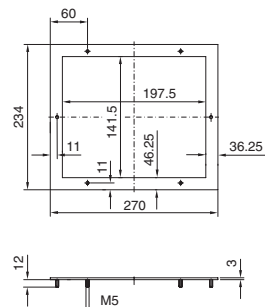
With threaded bolts M5.

Dimensions:
270 x 234 mm

Material:
3 mm aluminium, natural-anodised

Supply includes:
Mounting kit.

Mounting cut-out	Packs of	Model No. CP
Without	1	6027.500
For Siemens Simatic TP 177 A/B	1	6027.520
According to specifications	1	6027.509



Front panels for Compact Panel

Material:
3 mm aluminium, natural-anodised

Size W x H mm	To fit Compact Panel	Model No. CP
178 x 200	CP 6340.0X0	6028.500
178 x 350	CP 6340.1X0	6028.510
178 x 482.6	CP 6340.2X0	6028.520¹⁾
252 x 200	CP 6340.3X0	6028.530
252 x 350	CP 6340.4X0	6028.540

¹⁾ Delivery times available on request.



Front panels, hinged for VIP 6000 and Optipanel

Dimensions:
19" x 7 U (482.6 x 310.3 mm)

Opening angle:
Optipanel: 125°
VIP 6000: 95°

Material:
Front panel: 3 mm aluminium, natural-anodised
Extruded aluminium section: Natural-anodised

Supply includes:
Hinge section, hinge strip, 2 end trims and assembly parts.

Front panel for	Design	Model No. CP
Optipanel	Screw-fastened from the outside	6027.100
	Screw-fastened from the inside	6027.110
	With cam	6027.120
VIP 6000	Screw-fastened from the outside ¹⁾	6027.200
	Screw-fastened from the inside ¹⁾	6027.210
	With cam ¹⁾	6027.220

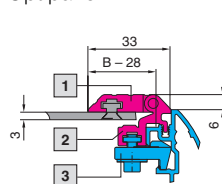
Delivery times available on request. For other sizes, please add the extension .XX9 to the model no.

¹⁾ When ordering, please specify the colour of the required end trim (see page 219).

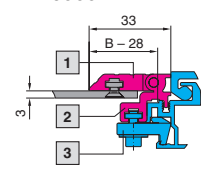
Required distance from edge "D" to avoid collisions

Installation depth	Dimension "D"
Optipanel 50 mm	25 mm
Optipanel 100 mm	34 mm
Optipanel 150 mm	48 mm
VIP 6000 44 mm	25 mm
VIP 6000 105 mm	36 mm
VIP 6000 155 mm	52 mm

Installation situation
Optipanel

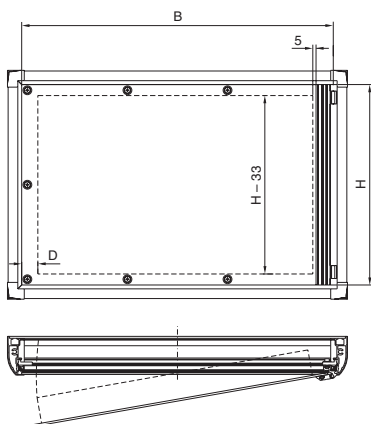


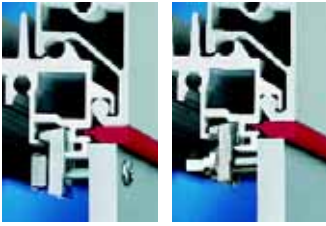
Installation situation
VIP 6000



- 1** Hinge strip
- 2** Hinge section
- 3** Retaining claw

B = Width





Mounting kit

for VIP 6000 and Optipanel

For installing

- Aluminium front plates
- Command panels
- Keyboards



For holes

Supply includes:

Packs of
30 retaining claws, captive nuts,
screws and sealing washers.

For threaded bolts

Supply includes:

Packs of
10 retaining claws and cap screws.

For screw clamp

Supply includes:

Packs of
4 pressure plates,
4 attachment strips.

For front panels	Thread	Model No. CP
Others	M4	6058.000
Rittal and others	M5	6053.000

For front panels	Thread	Model No. CP
Others	M4	6058.500
Rittal and others	M5	6053.500¹⁾

¹⁾ For the installation of TFT monitors 15", 17" and 19".

For direct installation of	Model No. CP
Siemens Sinumerik: OP 010, OP 010C, OP 012, OP 015, MCP 483, PP 012, Query 19", KB 483C	6053.210
Siemens Simatic: Panel PC 477, 577, 677, 677B: 12.1" touch, 15.1" touch, 12.1" keys, 15.1" keys, 19" touch ¹⁾ Panel PC 877: 15.1" touch, 12.1" keys, 15.1" keys, 19" touch ¹⁾	
Command panels Siemens Simatic: OP 270 10" MP 270B 10" keys, MP 277 10" key MP 370 12" key, MP 377 12" key	6053.220

The mounting set can only be installed vertically.
Installation in VIP 6000 only in conjunction with end trim.
¹⁾ 2 packs are required.

Installation of command panels
TP 270 6", TP 277 6", TP 270 10", OP 270 6",
OP 277 6", MP 270B 6", MP 270B 10" touch,
MP 277 10" touch, MP 370 12" touch,
MP 377 12" touch, MP 370 15", MP 377 15" touch
is achieved via an adaptor plate (included with
the supply of the enclosure if the appropriate
selection is made, or else available on request).

Human/machine interface

Front assembly



1



2



3

Mounting kit

for Comfort Panel

For the installation of aluminium front panels, command panels and keyboards.

Supply includes:

CP 6058.800, CP 6053.800:

20 each of retaining claws, captive nuts, screws, nuts and sealing washers.

CP 6053.300:

6 medium retaining claws, 8 short retaining claws

CP 6053.400:

4 long retaining claws, 6 short retaining claws

1 6058.800, 6053.800

2 6053.300

3 6053.400

For drilled holes/bolts/front panel mounting from behind

Thread	Model No. CP
M4	6058.800
M5	6053.800

For screw clamp

For installing:	Model No. CP
Siemens Sinumerik: OP 010, OP 010 C, OP 012, TP 012, OP 015, OP 015 A, MCP 483 C, MCP 483, PP 012, PP 012 extension, MCP, KB 483 C, Querty 19" Siemens Simatic: Panel PC 477, 577, 677, 677B: 12.1" keys, 12.1" touch, 15.1" keys, 15.1" touch, 19" touch Panel PC 877: 12.1" keys, 15.1" keys, 15.1" touch, 19" touch, TP 270 6", TP 277 6" MP 270 B 6" MP 370 15" touch, MP 377 15" touch, MP 370 12" touch, MP 377 12" touch, MP 377 19" touch B & R: Automation Panel Panel PC	6053.300
Siemens Simatic: OP 270 6", OP 277 6" TP 270 10", MP 270 B 10" touch, MP 277 10" key, MP 377 10" touch, OP 270 10", MP 270 B 10" keys, MP 370 12" key, MP 377 12" key	6053.400

Cross member

for VIP 6000 and Optipanel

For horizontal and/or vertical division of the Command Panel front.
With mounting channel on both sides to accommodate mounting kits.

Material:

Extruded aluminium section

Supply includes:

2 retaining claws,
2 screws with washers,
2 trim sections.



Front panel width mm	Model No. CP	
	for VIP 6000 ²⁾	for Optipanel
482.6 (19")	6015.000	6386.000
As specified ¹⁾	6015.009	6386.009

¹⁾ Please specify width/height of front panel.

²⁾ Trim type and trim colour, see page 219.

Please state on the order.

⊕ Accessories:

Mounting kit,
see page 1121.

Detailed drawing,

for VIP 6000,
see page 1210.
for Optipanel,
see page 1204.



Spacer panel and built-in trim panel

for VIP 6000 and Optipanel

For additional space with cable entry and for installing

- Switches/indicator lamps
 - Emergency-off switches/key switches
 - CD-ROM/disk drives
 - Interfaces
- etc.



For mounting (horizontally or vertically) on the enclosure, snap into position and screw-fasten from behind.

Other spacer panels and built-in trim panels, front panels and operator panels may be installed without an additional cross member.

Material:

Extruded aluminium section, natural-anodised

Supply includes:

Assembly parts and end trim (VIP 6000), spacer trim (Optipanel).



For VIP 6000

For front panel width mm	Model No. CP ²⁾
482.6 (19")	6015.300
As specified ¹⁾	6015.309

Height corresponding to a front panel height of 103 mm.

¹⁾ Please specify width of front panel.

²⁾ Trim colour see page 219.

Please state on the order.

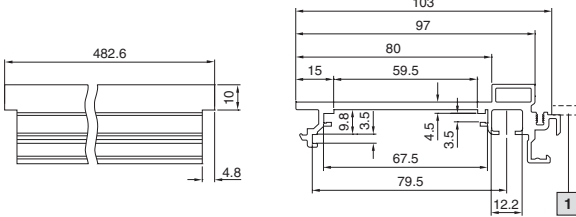
For Optipanel

Front panel width mm	Model No. CP
482.6 (19")	6386.300
As specified ¹⁾	6386.309

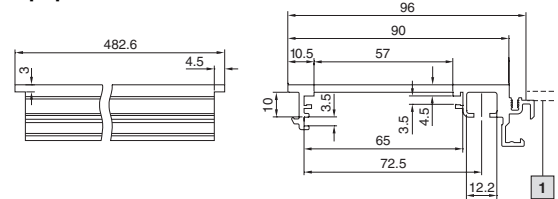
Height corresponding to a front panel height of 96 mm.

¹⁾ Please specify width of front panel.

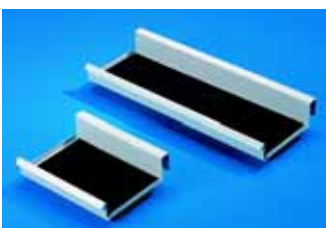
VIP 6000



Optipanel



1 Other spacer panels and built-in trim panels, front panel or operator panel



Utility shelf

screw-fastened

With support mat for: Measuring tools, writing equipment, mouse, scanner, small parts etc.

For mounting

- Underneath:
 - Comfort Panel
 - VIP 6000
 - Optipanel
 - Command Panel housing with door
 - Operating housing
 - IW worktop
- For visual reasons, not drilled for assembly.
- On surfaces (doors, rear panels) via rear assembly holes
- To TS punched section with mounting flange 17 x 73 mm, locatable, without screw fastening,
 - For servicing work on the enclosure.

Material:

Sheet steel

Colour:

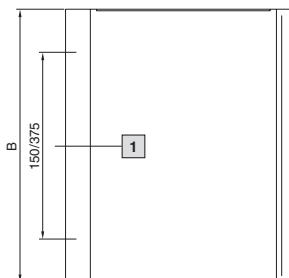
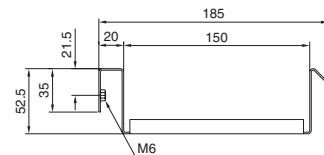
RAL 7035

Supply includes:

Assembly parts.



Width (B) mm	Model No. CP
220	6514.110
450	6514.100



1 Additional central thread only for CP 6514.100

Human/machine interface

General accessories



Cover plate

for support arm connection

For secure sealing of an unrequired support arm connection in the enclosure.

Material:
Sheet steel

Supply includes:
Seal and assembly parts.

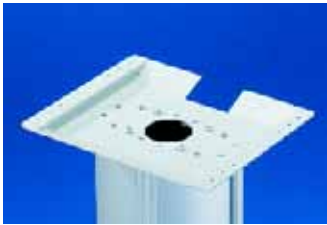
Note:

If with

- Comfort Panel
- VIP 6000
- Optipanel
- Compact panel

command panels, there are already 2 support arm cut-outs provided, a cover plate is included with the supply of the enclosure.

Support arm connection	Surface finish	Model No. CP
CP-S,	Spray-finished 7024	6505.200
CP-L, Ø 130 mm	Zinc-plated, passivated	6505.500
CP-L, □ 120 x 65 mm	Zinc-plated, passivated	6505.100



Worktop attachment

for pedestal and support arm system

For mounting worktops on:

- Lifting pillar, electric
- Enclosure attachment CP-L, round
- Enclosure coupling CP-L, round
- Enclosure attachment CP-XL, round
- Enclosure coupling CP-XL

Material:
Sheet steel

Colour:
RAL 7035

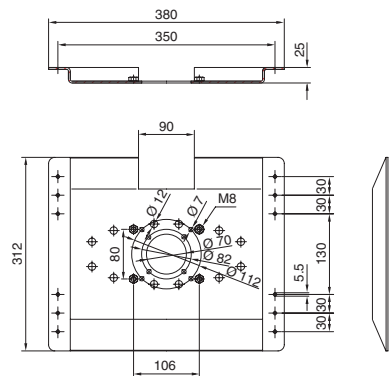
Supply includes:
Assembly parts.



Packs of	Model No. IW
1	6902.780

+ **Accessories:**

Accessories	Model No. CP	See page
Lifting pillar, electric	6142.000	287
Enclosure attachment, CP-L, Ø 130 mm	6525.5X0	256
Housing coupling, CP-L, Ø 130 mm	6525.0X0	262
Enclosure attachment, CP-XL, round	6130.6X0	271
Housing coupling, CP-XL	6130.0X0	272



General accessories



Aluminium strip

For

- AP one-piece console
 - Surfaces
- Prevents wiring plans etc. from slipping.

For console	Length mm	Packs of	Model No. AP
AP 2666.500	583	3	2676.000
AP 2668.500	783	3	2678.000
AP 2672.500	1183	3	2682.000

May be cut to length for other dimensions.



Signal pillars, LED compact

Benefits:

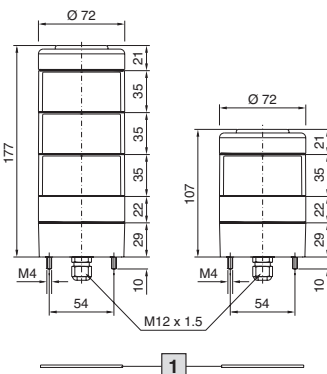
- Complete, ready-to-connect solution
- Minimal build height
- Extremely long service life of the LEDs (at least 70,000 h) – therefore maintenance-free
- Minimal assembly work and warehousing costs

Technical specifications:

Operating voltage: 24 V AC/DC
 Electrical connection: Screw terminals
 Light: LED
 Transmission angle: 3 x 120°
 Operating temperature: -20 to +70°C
 Flash function: Controllable via PLC
 Cable entry: Metric gland
 M12 x 1.5 for cable diameter 3.0 – 6.5 mm

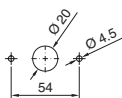
Protection category:

IP 65 to EN 60 529/09.2000



1 Seal

Mounting cut-out

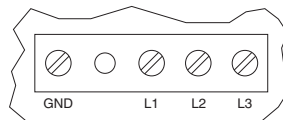


Ordering example/ LED compact, configurable

(from top to bottom):
 Signal pillar, 2-stage, acoustic component, red continuous light, green flashing light, screw fastening

Position	1	2	3	4	5	6
Code no.	1	1D	2B	0	0	1

Connection picture SG 2372.100/.130/.140



- GND – 0 V (Ground)
 A – +24 V DC (acoustic, where included with the supply)
 L1 – L4 – +24 V DC (LED light stages, from bottom to top, unneeded contacts are left free)

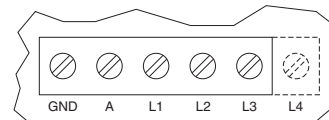
Design	Packs of	H mm	Model No. SG	
			non-configurable	configurable
3-stage, red, yellow, green	1	177	2372.100	–
1-stage, red	1	107	2372.130	–
1-stage, yellow	1	107	2372.140	–
As per specifications	1	–	–	2372.109¹⁾

¹⁾Please additionally give the design code.
 Minimum order volume 10 units.
 Delivery times available on request.

! Also required:

For wall mounting:
 Bracket for wall mounting, see page 1128.
 For conduit mounting/support arm systems:
 Connection adaptor, see page 1125.
 Other mounting components, see page 1129.

Connection picture SG 2372.109



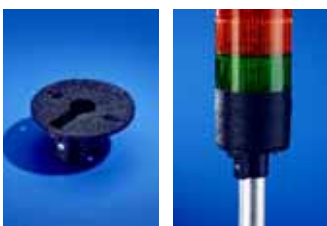
Description	Design	Code number ¹⁾
Acoustic element in cover, controllable up to 90 dB, may be switched between intermittent and continuous tone	Without acoustic element	0
	With acoustic element	1
LED light stages (max. 4 units)	None	0
	Red steady light	1D
	Red flashing light	1B
	Green steady light	2D
	Green flashing light	2B
	Yellow steady light	3D
	Yellow flashing light	3B
	Clear steady light	4D
	Clear flashing light	4B
	Blue steady light	5D
Blue flashing light	5B	
Connection component	Screw fastening (cable infeed at bottom)	1
	Magnetic attachment (cable infeed at side)	2

Connection adaptor

for signal pillar, LED compact
 For conduit mounting and mounting on support arm systems.

Material:
 Plastic

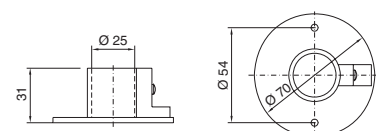
Colour:
 Black



Packs of	Model No. SG
1	2372.120

+ Accessories:

Mounting components for conduit mounting, see page 1129.
 Mounting components for support arm system, see page 1129.



Signal pillars



Signal pillars, modular

Benefits:

- Simple assembly and contact via bayonet fastener.
- Configuration of up to five components with the same voltage.
- The incandescent lamps are replaced in seconds – no need for tools.
- Components are available in a range of colours and voltages.

For modular configuration from:

- Connection components
- Optical components
- Incandescent lamps/LED lamps
- Acoustic components
- Label panel



Connection component

for signal pillars, modular

Optionally for conduit or wall/base mounting. Screw terminals in the connection component. With cover for optical components. Contact hazard protection to VDE.

Material:

Enclosure of polyamide

Colour:

Black

Protection category:

IP 54

Connection component	Model No. SG
For conduit mounting	2368.000
For wall/base mounting	2368.010

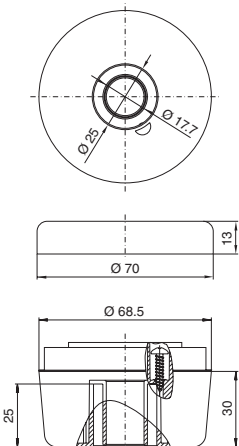
+ Accessories:

Mounting components for wall/base mounting, see page 1128.

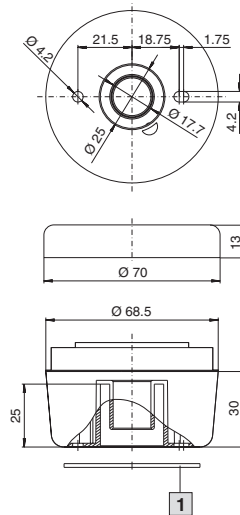
Mounting components for conduit mounting, see page 1129.

Mounting components for support arm systems, see page 1129.

Connection component for conduit mounting
SG 2368.000

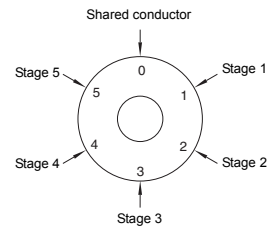


Connection component for wall/base mounting
SG 2368.010



1 Seal

Connection diagram





1



2



3



4

Optical components

for signal pillars, modular

With 360° signal transmission thanks to optimised prism system.

No. of potential stages =
5 components, with identical voltage.
115 V components available on request.

Material:

Enclosure: Polyamide
Spherical cap: Transparent polycarbonate

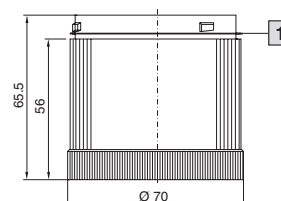
Protection category:

IP 54 if a cover or acoustic component is fitted at the top.



Also required:

Incandescent or LED lamps for steady and flashing light component, see page 1127.



1 Pre-configured seal

Optical components	Model No. SG				
	Red	Green	Yellow	Clear	Blue
1 Steady light component ¹⁾ 12 – 240 V AC/DC	2369.000	2369.010	2369.020	2369.030	2369.040
2 Flashing light component ¹⁾ 24 V AC/DC	2370.000	2370.010	2370.020	2370.030	2370.040
2 Flashing light component ¹⁾ 230 V AC/DC	2370.050	2370.060	2370.070	2370.080	2370.090
3 Flashing light component 24 V DC, 125 mA	2371.000	2371.010	2371.020	2371.030	2371.040
3 Flashing light component 230 V DC, 35 mA	2371.050	2371.060	2371.070	2371.080	2371.090
4 LED steady light component 24 V AC/DC, 45 mA	2372.000	2372.010	2372.020	2372.030	2372.040

¹⁾ Incandescent or LED lamps not included with the supply.



Incandescent lamps

for steady and flashing light components

With BA 15d base/plinth.
For new orders or replacements.

Incandescent lamp	Packs of	Model No. SG
24 V, 5 W	3	2374.060
230 V, 5 W	3	2374.070



LED lamp

for steady and flashing light components

The energy-saving alternative with a long service life.

The LEDs have a transmission angle of 2 x 180°.

LED lamp	Packs of	Model No. SG				
		Red	Green	Yellow	Clear	Blue
24 V AC/DC	1	2374.200	2374.210	2374.220	2374.230	2374.240
For steady and flashing light components from SG 2369.000 to SG 2370.040						
230 V AC	1	2374.300	2374.310	2374.320	2374.330	2374.340
For steady light components SG 2369.000 to SG 2369.040						

Signal pillars



Acoustic components

for signal pillars, modular

To indicate warnings or malfunctions. The sound level is 85dB/100 dB. Mounting only on the upper end of the optical components or directly on the connection component.

Material:
Enclosure: Polyamide

Colour:
Black

Acoustic components	Model No. SG	
	24 V AC/DC	230 V AC
85 dB ¹⁾ max. 25 mA	2376.000	2376.020
100 dB ²⁾ max. 25 mA	2376.010	2376.030

¹⁾ Continuous tone or pulsating

²⁾ Volume and 8 tones may be set



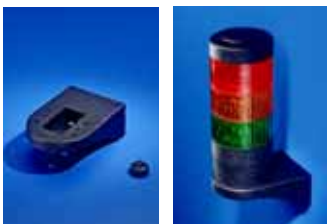
Label panel

for signal pillars, modular

For text additions for up to 5 optical components, with break point for any fields that are not required (50 x 150 mm), including clamping section for base or tube with a diameter of 25 mm.

Material:
Acrylic, transparent

Label panel	Model No. SG
for 5 optical components	2374.150



Mounting components

for wall/base mounting

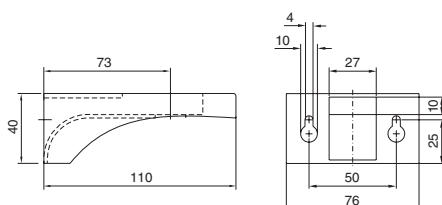
Fig.	Mounting component	Colour	Suitable for signal pillar		Model No. SG
			LED compact	modular	
1	Bracket for wall mounting, including rubber gland for concealed cable routing	Black	■		2372.110
2	Bracket for connection component	Black		■ ¹⁾	2374.040
3	For side cable outlet	Black		■ ¹⁾	2374.080

! Also required:

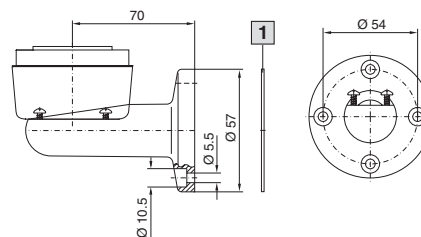
¹⁾ Connection component SG 2368.010, see page 1126.



Bracket for wall mounting

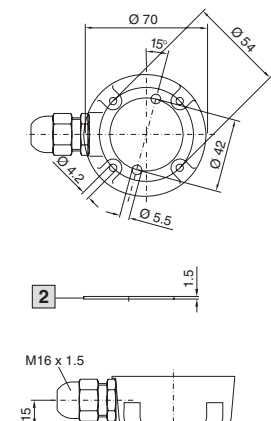


Bracket for connection component

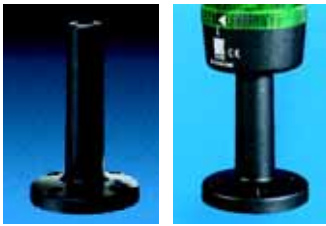


- 1** Seal
- 2** Flat seal

For side cable outlet



Mounting components for conduit mounting



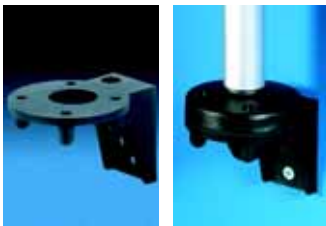
4



5



6



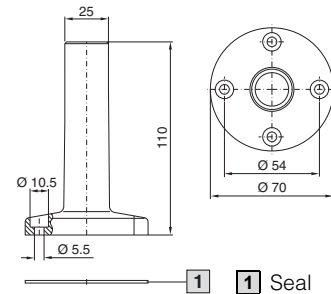
7

Fig.	Mounting component	Colour	Suitable for signal pillar		Model No. SG
			LED compact	modular	
4	Base with integral conduit, Ø 25 mm, 110 mm long	Black	■ ¹⁾	■ ²⁾	2374.000
5	Individual base	Black	■	■	2374.010
6	Single conduit, 250 mm long	Aluminium	■ ¹⁾	■ ²⁾	2374.020
	Single conduit, 400 mm long	Aluminium	■ ¹⁾	■ ²⁾	2374.030
7	Angle bracket for conduit mounting	Black	■	■	2374.050

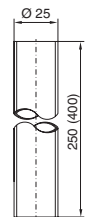
! Also required:

- 1) Connection adaptor SG 2372.120, see page 1125.
- 2) Connection component SG 2368.000, see page 1126.

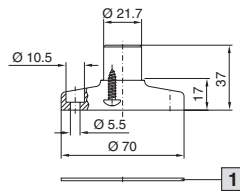
Base with integral conduit



Single conduit

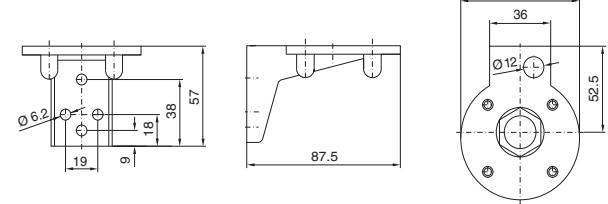


Individual base, plastic



1 Seal

Angle bracket for conduit mounting



Mounting components for support arm systems



8



9



10

Fig.	Mounting component	Colour	Suitable for signal pillar		Model No. SG
			LED compact	modular	
8	For support arm system CP-L – Angle piece CP 6524.0X0 – Angle coupling CP 6526.0X0	RAL 9017 (traffic black)	■ ¹⁾	■ ²⁾	2375.000
9	For support arm system CP-L – Intermediate hinge CP 6523.0X0 – Wall mounted hinge CP 6521.0X0 – Top mounted joint CP 6522.0X0	RAL 9017 (traffic black)	■ ¹⁾	■ ²⁾	2375.020
10	For support arm system CP-S – Angle piece 90° CP 6501.140	RAL 7024 (graphite grey)	■ ¹⁾	■ ²⁾	2375.030

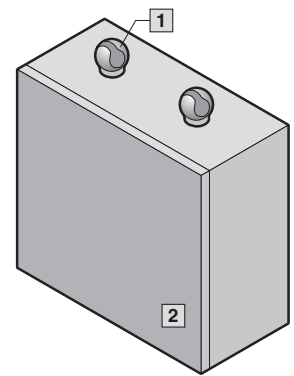
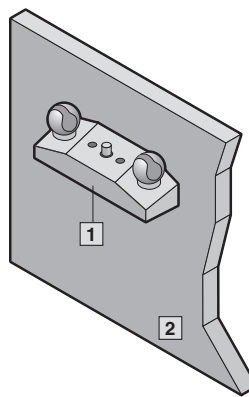
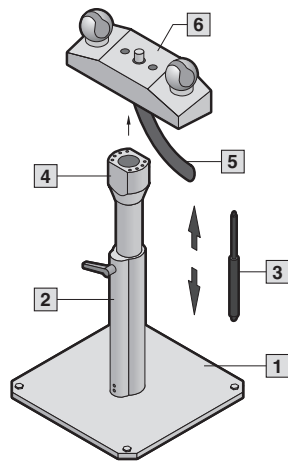
! Also required:

- 1) Connection adaptor SG 2372.120, see page 1125.
- 2) Connection component SG 2368.000, see page 1126.

Human/machine interface

Two-handed operating console

- 1** Pedestal base (see page 289)
- 2** Support section, height-adjustable (see page 288)
- 3** Gas pressurised spring (see page 288)
- 4** CP-S attachment (see page 244)
- 5** Cable conduit (see page 1065)
- 6** Two-handed operating console (see page 1131)



- 1** Two-handed operating console (see page 1131)
- 2** Wall/machine

- 1** Safety switch (see page 1130)
- 2** Enclosures

Note:

The plant installation engineer is responsible for observing the safety clearance between moving parts and the hazard zone in accordance with prEN 999.



Safety switch for two-handed controls

Thanks to the new design with two trigger fields, the hand remains fully in contact with the safety switch for the duration of operation. In this way, it is possible to configure two-handed controls which adhere to the distances prescribed by the relevant standards, without the need for additional covers.

Properties:

- Maximum safety level EN 574 (type IIIC), EN 954-1 (safety category 4) in conjunction with safety relay SM 6451.200.
- Minimal operating force of approx. 2 N.
- Flexible choice of mounting location, e.g. enclosure or surfaces.
- Two switches for each hand that must be pressed simultaneously.
- Long mechanical service life.

Dimensions:

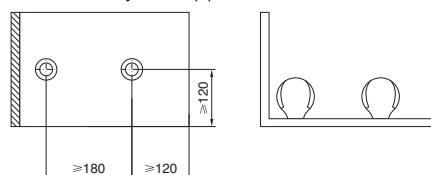
Height: 71 mm, ball diameter: 68 – 72 mm

Technical specifications:

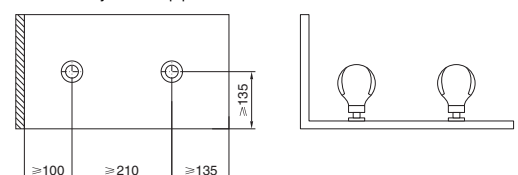
Weight: 0.2 kg per safety switch (including cable)
 Operating temperature: 0°C to +55°C
 Storage temperature: -20°C to +70°C
 Actuator travel: 1.3 ± 0.6 mm
 Switching capacity:
 Recommended load: 24 V/10 mA DC
 Minimum: 6 V/10 mA DC (Ohmic load)
 Maximum: 30 V/2 A DC (Ohmic load)
 Contact material: Silver alloy, gold-plated
 Contact resistance: 100 mΩ
 Lifecycle:
 Mechanical: 1 x 10⁶ switching cycles at max. 1 Hz
 Electrical: Depending on the electrical load
 Connection cable: PVC, 4 x 0.75 mm², length: 2 m, black

Minimum distance between individually installed safety switches SM 6451.100

Without ball joint support



With ball joint support



For all other mounting situations, the installation technician should perform an analysis to EN 574.

Design	Packs of	Model No. SM
1 normally closed contact/ 1 normally open contact	2	6451.100

Material:

Polypropylene

Colour:

Yellow/black

Protection category:

IP 67 to EN 60 529/09.2000

Supply includes:

Safety switch, seal, assembly parts.



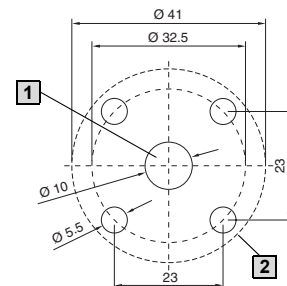
Also required:

Safety relay, see page 1132.



Accessories:

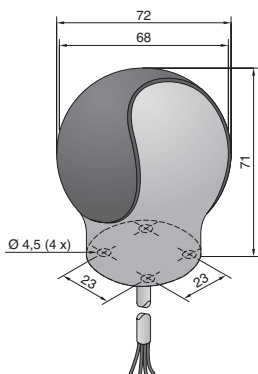
Ball joint support, see page 1131.



- 1** Optional hole for cable entry
- 2** Contact surface

Two-handed operating console

B
7.10



Two-handed operating console



Two-handed operating console

Maximum safety levels EN 574 (type IIIC), EN 954-1 (safety category 4) are met in conjunction with safety relay SM 6451.200.

Design with

- 2 safety switches (1 normally closed contact/1 normally open contact)
- 1 emergency off button (2 normally closed contacts/1 normally open contact)
- 2 locations for other command devices Ø 22.5 mm, covered

While observing the safety distances prescribed by the relevant standards, prepared for attachment optionally via the rear of the enclosure

- to walls
- to machines
- or via the gland plate
- on height-adjustable pedestal, modular, CP-S (see page 288)

Material:

Enclosure and gland plate: Sheet steel 3 mm

Surface finish:

Enclosure and gland plate: Spray-finished in RAL 7035

Supply includes:

Depending on the design (see above).

Technical specifications:

Operating temperature: 0°C to +55°C
Storage temperature: -20°C to +70°C

Safety switch prewired on clamping strip

Emergency off switch: Prewired on clamping strip

Design: 2 normally closed contacts/1 normally open contact

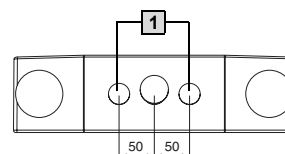
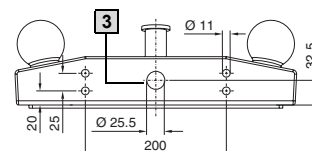
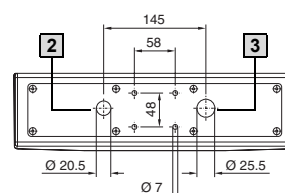
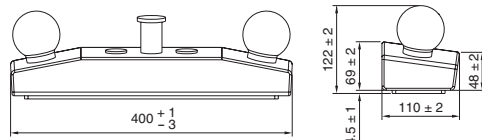
Properties of auxiliary contacts:

Rated insulating voltage: 690 V

Max. permissible fuse: 10 A gG

Switch actuating force: 5 N each

Electrical lifecycle: 1 x 10⁶ switching cycles



1 Switch cut-out Ø 22.5 mm

2 Holes for M20 cable glands

3 Holes for M25 cable glands

All openings are equipped with plugs.

Packs of	Model No. SM
1	6451.000

Protection category:

IP 65 to EN 60 529/09.2000

(subject to correct cable entry and attachment)

Dimensions:

W x H x D 400 x 122 x 110 mm (including switch)



Also required:

Safety relay, see page 1132.



Accessories:

Pedestal, modular, CP-S, comprised of:

- Pedestal base plate (CP 6146.100), see page 289.
- Support section, height adjustable (CP 6146.200), see page 288.
- Attachment CP-S (CP 6501.070), see page 244.

Ball joint support (SM 6451.190), see page 1131.

Cable conduit NW29 (SZ 2589.100), see page 1065.

Plug-in connection NW29, angled (SZ 2589.120), see page 1065.

Ball joint support

For individual adjustment of the safety switches to an ergonomic position. Recommended for long-term operation or for use by alternating personnel. May be twisted and tilted, rotation range limited to protect the cable.

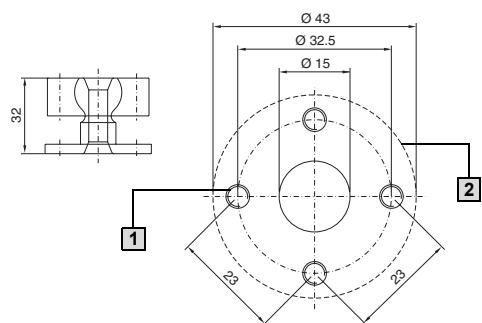
Material:

Brass, nickel-plated

Supply includes:

Ball joint support, seal, including assembly parts.

Packs of	Model No. SM
2	6451.190

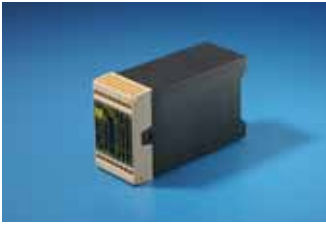


1 M5, optional hole Ø 5.5 mm

2 Contact surface

Human/machine interface

Two-handed operating console



Safety relay

Applications

- Configuration of two-hand controls, type IIIC to EN 574
- Connection of EMERGENCY OFF switches

Product features:

- Two-channel system
- Monitored reset
- Test input
- LED display for power supply, inputs and outputs
- 3 normally open contacts/1 normally closed contact
- Operating voltage 24 V DC
- Simple interconnection and rapid exchange via removable clamping strips
- Support rail mounting TS 35

Functional description:

The safety relay has dual inputs which must be closed in order for the safety outputs to close. A short-circuit between the inputs will effect an immediate stop, as they have different potentials. The inputs may be permanently short-circuited without damaging the safety relay.

To close the safety outputs, the RESET input must close and then reopen. This prevents unintentional resets in the event of short-circuits in cables or if a RESET button becomes jammed in the depressed position.

The reset input is also provided as a test for the monitoring e.g. of contactors or valves which must have dropped out or fallen back prior to restarting.

When using the safety relay as a two-handed relay, all push-buttons must be actuated within 0.5 sec.

Packs of	Model No. SM
1	6451.200

Dimensions:

W x H x D 45 x 74 x 120 mm

Safety level:

- Two monitored control circuits of different potentials.
- Short-circuits, interruptions, device malfunctions or external defects will not lead to a dangerous situation.
- Safety category 4 to EN 954-1.

Technical specifications:

Operating voltage: 24 V DC $\pm 15\%$

Power consumption: < 2 W

Switching capacity:

Min. 10 mA/10 V (if contact load has not exceeded 100 mA)

Max. 6 A/250 V AC/1500 W (Ohmic load AC)

Max. 6 A/24 V DC/150 W (Ohmic load DC)

Max. input resistance:

at rated voltage 300 Ω (S13/S14 and S23/S24)

Clearance and creepage distance:

4 kV/2 DIN VDE 0110 (IEC 60 664-1)

Reaction time for stop:

< 15 ms (input – output),

145 ms in the event of a mains failure

Connection clamps:

Single conductor: 1 x 4.0 mm² or 2 x 1.5 mm²

Conductor with end ferrule:

1 x 2.5 mm² or 2 x 1.0 mm²

Operating temperature: -10°C to +55°C

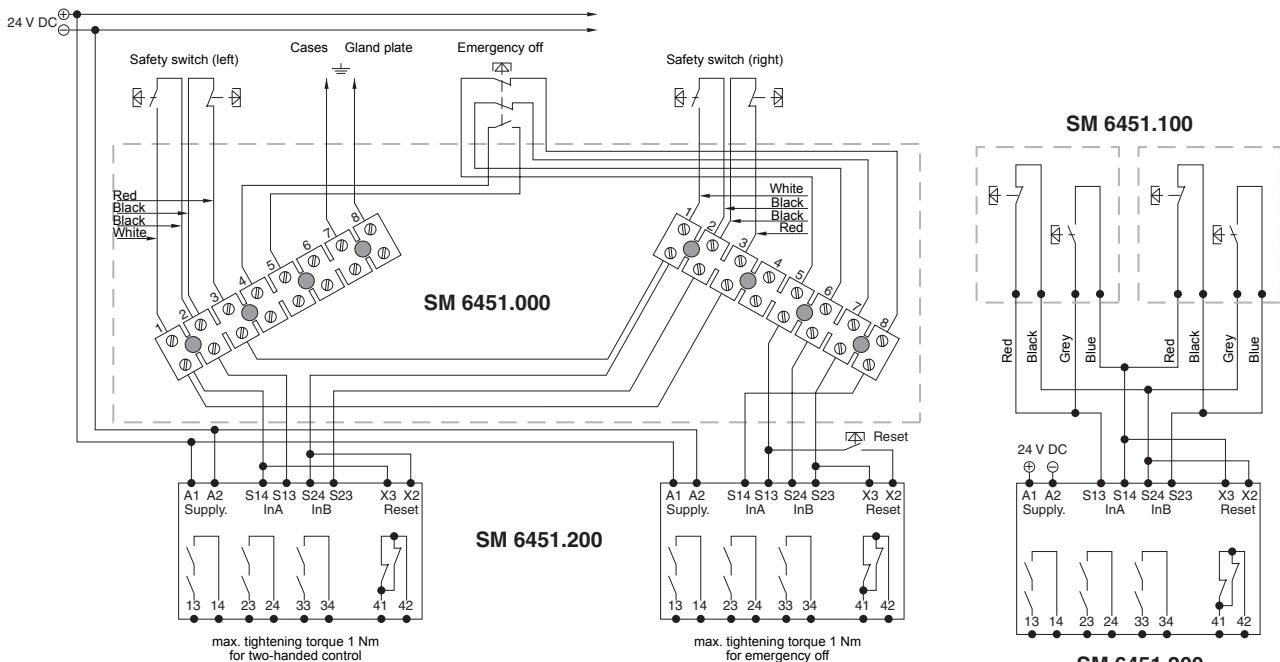
Weight: 350 g

Protection category:

IP 40/20 to EN 60 529/09.2000

(enclosure/terminals)

Electrical connection



SM 6451.100

SM 6451.200



Premium TFT 17", IP 69K

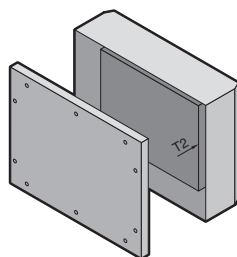
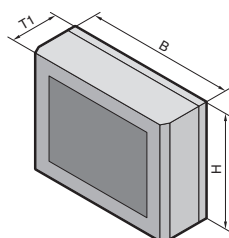
The complete solution, resistant to high-pressure cleaning.

Technical specifications:
see TFT monitor 17".

Material:
Stainless steel 1.4301 (AISI 304)

Surface finish:
Brushed, grain 240

Protection category:
IP 69K to DIN 40 050-9



B = Width
T = Depth

Support arm connection	W (B) mm	H mm	T1 mm	T2 mm	Model No. SM
Bottom	530	360	120	70	6450.100
Top	530	360	120	70	6450.110

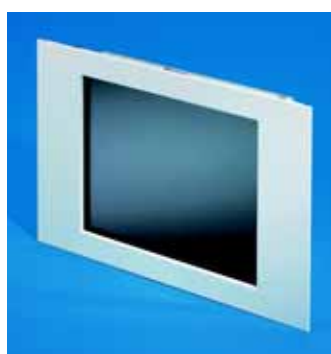
Stainless steel design 1.4404 (AISI 316L) available on request.

! Also required:

Power pack SM 6450.050 and connection cable SM 6450.060, see page 1134, if an operating voltage of only 100 – 240 V AC is available instead of 12 V DC.

+ Accessories:

Rear panel holder CP 6682.000, see page 962.
Support arm system CP-S, stainless steel, see page 313.



TFT monitor

Installation variant for surfaces and command panels.

Benefits:

- High-quality industrial design
 - Reduced installation work thanks to integral front frame
 - No additional ventilation required
 - Very small installation depth (45 mm)
- Resistive touchscreen for operation with a pen, finger or glove.

Front frame:
Aluminium, powder-coated, RAL 7035
Rear threaded bolts M5 (14 off)

Protection category:
IP 65 to EN 60 529/09.2000, front

Supply includes:
Seal, hex nuts (for installation in surfaces), VGA cables and (where applicable) DVI cables. Touch variants additionally with integral connection cable and driver CD-ROM.

Size	Interfaces	Model No. SM		
		Touch		
		without ²⁾	resistive, serial	resistive, USB
15"	VGA	6450.010	6450.030	–
	VGA + DVI	6450.150¹⁾	6450.120¹⁾	6450.070¹⁾
17"	VGA	6450.020	6450.040	–
	VGA + DVI	6450.160¹⁾	6450.130¹⁾	6450.080¹⁾
19"	VGA + DVI	6450.170¹⁾	6450.140¹⁾	6450.090¹⁾

¹⁾ Extended delivery times.

²⁾ With anti-reflection coated safety glass.

! Also required:

Mounting kit CP 6053.800 (when installing in Comfort Panel), see page 1122.
Mounting kit CP 6053.500 (when installing in VIP 6000 and Optipanel), see page 1121.
Power pack SM 6450.050 and connection cable SM 6450.060, see page 1134, if an operating voltage of only 100 – 240 V AC is available instead of 12 V DC.

Detailed drawing,
see page 1304.

Technical specifications	15"	17"	19"
Resolution of display (max. pixels)	1024 x 768	1280 x 1024	
Resolution of controller/colours	VGA-SXGA/16.2 million		
Brightness (cd/m ²)	400	300	250
Contrast ratio	500 : 1		
Reading angle horizontal (right/left)	65°/65°	75°/75°	88°/88°
Reading angle vertical (top/bottom)	45°/65°	65°/65°	88°/88°
Lamp life ¹⁾ (h)	min. 35,000	typ. 50,000	min. 40,000
On-screen display (OSD)	At rear		
VGA input	D-Sub HD 15-pole		
DVI input (if available)	DVI-D single TMDS (all pins on display side)		
Operating temperature (°C)/Storage temperature (°C)	0 to +50/-20 to +60		
Voltage input	12 V DC		
Power consumption (W)	30	35	40
H-Sync. (kHz)/V-Sync. (Hz)	31.5 to 80/60 to 75		
Humidity in operation (%)	20 to 80 (non-condensing)		
Humidity in storage (%)	5 to 95 (non-condensing)		

¹⁾ Until half the original brightness is achieved.

Human/machine interface

Monitors, keyboards



Power pack

for TFT monitor and Premium TFT 17", IP 69K

- With IEC 320 socket,
 - With connection cable (1.5 m) and connector for connecting to the TFT monitor.
- Dimensions: 107 x 30 x 59 mm.

Technical specifications:

Input voltage: 100 – 240 V AC
Output voltage: 12 V DC

Packs of	Model No. SM
1	6450.050

Material:

Enclosure: Plastic

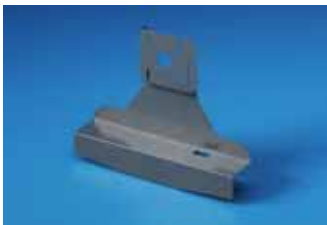


Connection cable

for power pack

With IEC connector at one end, length: 1.5 m.

Packs of	Model No. SM
1	6450.060



TFT holder

for the attachment of TFTs up to 20.1" prepared for the external mounting of:

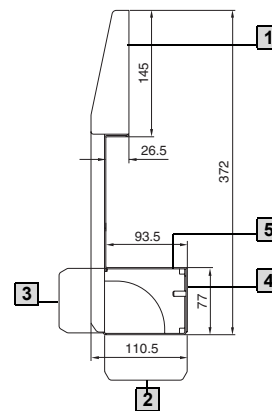
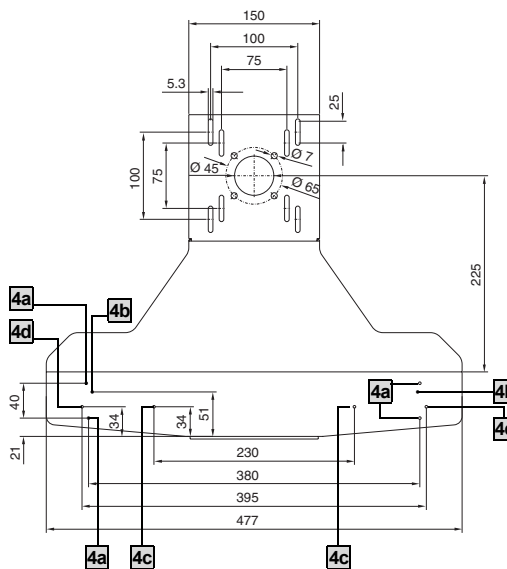
- VESA 75 or 100 rigid
 - VESA 75 and tilt adjustment via IW 6902.670 (page 243)
- Enclosure attachments CP-S (page 242) or CP-L \square 120 x 65 mm (page 251)
- Enclosure attachments on the horizontal support arm CP-S or CP-L \square 120 x 65 mm, for mounting on the vertical support arm via tilt adjuster IW 6902.670

Dimensions in mm	Model No. SM
477 x 372 x 110.5	2383.030

- Support for keyboards SM 2383.000 (page 1140) via enclosure surface connector SM 2383.010 (page 1118)
 - Utility shelf CP 6514.100 (page 1123)
 - U handle CP 6107.100 (page 1117)
 - U handle CP 6107.200 (page 1117)
- via marked points
- Connector gland SZ 2400.300/500 (page 1057) as strain relief for the connection cable

Material:

Sheet steel, spray-finished in RAL 7024





Support arm, height adjustable, compact

For small panels and TFTs with mounting cut-out

- VESA 75
- VESA 100 via adaptor plate CP 6510.010

Mounting bracket with

- Desk clamp for worktops up to 75 mm thick
- Hole pattern for support section CP-L horizontal or wall mounting

Almost any position is individually adjustable:

- Height-adjustable +90°,
- Vertically hinged 350°,
- VESA attachment, tiltable ±90°,
- VESA attachment, vertically hinged ±90°

Material:

Support arm:
Sheet steel, aluminium, RAL 7024

Panel mouldings:

Plastic, similar to RAL 7035
Optional adhesive design film, RAL 7024

Supply includes:

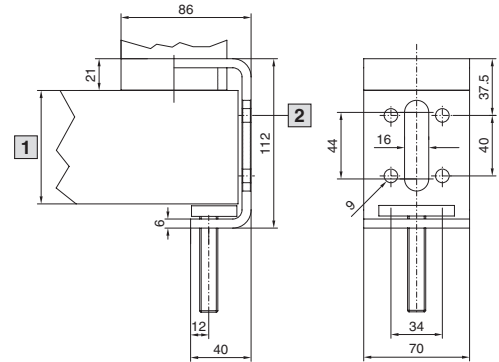
Assembly parts.

Weight range:

2.5 – 8.5 kg infinitely adjustable.

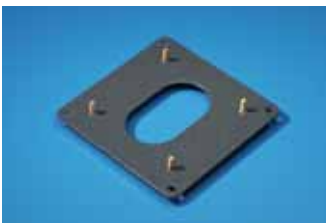


Jib length mm	Model No. CP
400	6510.110



1 Max. 75 mm

2 Support section CP-L may be mounted here



Adaptor plate

from VESA 75 to VESA 100

For mounting panels, enclosures and TFTs with VESA 100 connection on

- Support arm, height adjustable, compact, CP6510.110,
- Enclosure attachment, tilting, IW 6902.670, see page 243.

Material:

Sheet steel

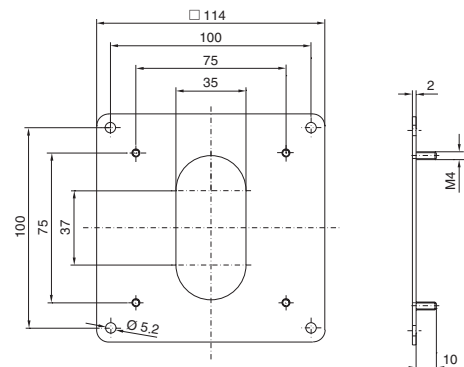
Colour:

RAL 7024

Supply includes:

Assembly parts.

Packs of	Model No. CP
1	6510.010



Human/machine interface

Monitors, keyboards



Mounting on surfaces



Mounting in niches



1



2

Pedestal, height-adjustable, CP

The ideal attachment for lightweight operating units such as:

- Compact Panel
- TFT up to 20.1"
- Other assemblies up to max. 15 kg.

Assembly

- Rear: Attachment using cage nuts
- Front: Via mounting bracket CP 6510.520 (accessories, see below).

Adjustment range 200 mm

- Sliding height adjustment, may be secured using a knurled screw
- With integral 10 kg gas pressurised spring for pressure relief during height adjustment
- For a suspended load, to adjust the operator simply the differential weight to the spring force of the gas pressurised springs

Swivel area max. 180°

- Adjustable in 7.2° increments.

Note:

Other gas pressurised springs available on request.

Detailed drawings, available on the Internet.

1 With holder for Compact Panel

For Compact Panel	Width mm	Height mm	Depth mm
CP 6340.020	241	238	87
CP 6340.320	315		

Material:

Connection and slide profile: Natural-anodised
Pedestal unit: Sheet steel, RAL 7024

Supply includes:

Connection profile, slide profile, pedestal unit including assembly parts.

Packs of	Model No. CP
1	6510.500

End stop on left of machine as standard, right on request.

2 With support for TFT up to 20.1"

Material:

Connection and slide profile:
Natural-anodised

Hinges:

Die-cast zinc, RAL 7024
End cover, support for TFT:
Sheet steel, RAL 7024

Supply includes:

Connection profile, slide profile, hinges, holder for TFT: including assembly parts.

Packs of	Model No. CP
1	6510.510

End stop on left of machine as standard, right on request.

Mounting angles

For front mounting of height-adjustable pedestals CP 6510.500 and CP 6510.510.

Material:

Sheet steel, RAL 7024

Packs of	Model No. CP
1 set	6510.520





Keyboard, pull-out with integral trackball

Super-slimline keyboard with cursor keys and trackball. The handle also serves as a hand rest. The versions without lock insert of the 10° angled pullout ensure ergonomic working.

For installation in:

- Comfort Panel (see page 192), Optipanel (see page 204) and VIP 6000 (see page 213) from an installation depth of 150 mm
- 482.6 mm (19") systems
- Any sufficiently large surface (e.g. door, side panel)

Technical specifications:

- Keyboard:
 - 84 short-stroke keys, IBM-AT compatible (MF2), incl. cursor keys
 - With integral 16 mm trackball
- Interface:
 - 2 x 6-pole PS/2 DIN connector
 - Operating temperature: +5°C to +50°C
 - Storage temperature: -10°C to +60°C
 - Humidity: Max. 95 % (non-condensing)
- Front panel, powder-coated in RAL 7035

Protection category:

IP 65 (front, solid) to EN 60 529/09.2000



Keyboard layout	Features	Packs of	Model No. SM
German	10° angled pull-out	1	6002.100
US English		1	6002.101¹⁾
UK English		1	6002.102¹⁾
As specified ²⁾		1	6002.109¹⁾
German	3 mm double-bit lock insert	1	6002.110
As specified ²⁾		1	6002.119¹⁾

¹⁾ Extended delivery times.

²⁾ Available layouts:

BE, DK, FR, IT, NO, PO, ES, RU, SE/Fl, CH, CZ

Note:

For sub-division of the operating front when installing in command panels, a cross member is required:

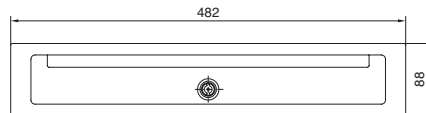
- Comfort Panel (see page 199, version 2.2.).
- VIP 6000 (see page 218, version 3.2). At the same time, the end trim (see page 219, version 3.4) must be selected.
- Optipanel (see page 208, version 2.2).



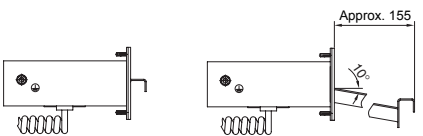
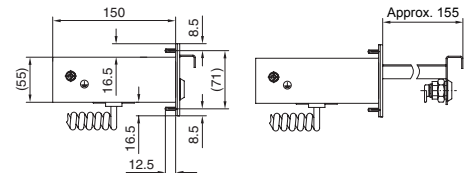
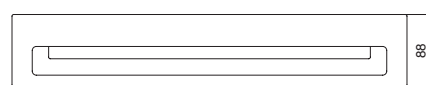
Accessories:

Standard double-bit lock insert may be exchanged for 27 mm lock inserts, version A, see page 956, or lock cylinder inserts, version B, see page 957.

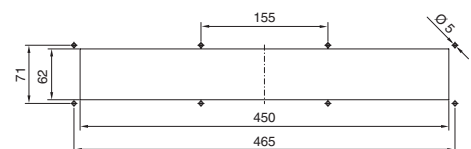
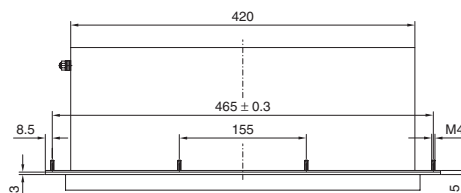
SM 6002.11X



SM 6002.10X



Mounting cut-out



Human/machine interface

Monitors, keyboards



Desktop keyboard IP 65

Particularly well-suited to all areas with dusty or damp industrial atmospheres and places where hygiene is particularly crucial, such as in the food industry or medical technology.

- Sealed, wipeable surface finish.
- High level of mechanical and chemical resistance to DIN 42 115.
- Lenticular key caps and minimal typing force for optimum finger guidance and fast operation. This makes it ideally suited for workstations where it is necessary to input large quantities of data.

Supply includes:

Connection cable with PS/2 connector, length 1.8 m.

	Model No. SM
Desktop keyboard	6446.000

Technical specifications:

Dimensions: 410 x 220 x 25 mm
 105 keys
 Actuator travel/force: 0.4 mm/2 N
 Service life: ≥ 1 million switching cycles
 Operating temperature: -20°C to +70°C
 German layout



Rittal service:

Country-specific layout and USB connection available on request.



Built-in keyboard 19"/4 U

with integrated touchpad

The integrated touchpad means that the installation of an additional, correct protection category mouse is no longer required and cabling is also reduced. The short stroke keys are easily identified by edge embossing, less force is required to operate them and they have good positive key actuation.

Benefits:

- The separate number pad enables the parameters to be entered quickly
- Sealed, wipeable surface finish
- High level of mechanical and chemical resistance as per DIN 42 115

Technical specifications:

- Number of keys: 105
- Front panel dimensions: 482.6 x 177.0 mm (19" x 4 U)
- Installation depth: 23 mm
- 12 M5 x 20 threaded bolts at back
- Actuation travel/force: 0.3 mm/2.6 N
- Service life: 3 million switching cycles
- Operating temperature: -40°C to +90°C
- Touchpad resolution, capacitive: 40 pixels/mm
- Interfaces: 2 x PS/2 (1 USB adaptor supplied)

Material:

Front panel: Aluminium

Protection category:

IP 65 to EN 60 529/09.2000, front

Supply includes:

Y-supply cable, 1.8 m long, with PS/2 connections, seal, USB adaptor, drilling template and surface assembly parts.

Keyboard layout	Packs of	Model No. SM
German	1	6446.020
As specified ¹⁾	1	6446.029 ²⁾

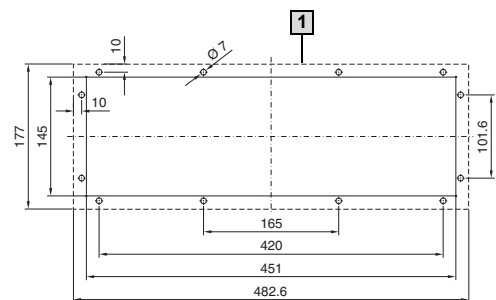
¹⁾ Layouts available: BE/FR, CH, DK, ES, HU, IT, PO, SE/Fl, Tü, UK, US, US Arabic, US Cyrillic

²⁾ Extended delivery times.



Also required:

Mounting kit CP 6053.800 (when installing in Comfort Panel), see page 1122.
 Mounting kit CP 6053.500 (when installing in VIP 6000 and Optipanel), see page 1121.



1 Contact surface



Stainless steel keyboard 19"/4 U

based on the piezo system. With this innovative technology, merely tapping lightly with your finger is sufficient to initiate switching. There are no edges, cracks or hollows, as with conventional keyboards. It is therefore particularly well-suited for the food industry (compact enclosures Hygienic Design, see page 299).

Technical specifications:

- Dimensions of front panel: 482.6 x 177 x 25 mm
- Installation depth: 25 mm
- 105 keys
- Actuator travel/force: 0 mm/0.7 N
- Service life: ≥ 10 million switching cycles
- Keypad: Abrasion-resistant electrolyte lettering
- Operating temperature: -25°C to +55°C
- PS/2 and USB connection
- German layout

Material:

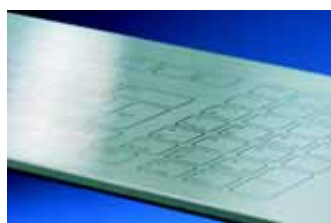
Stainless steel 1.4301

Protection category:

IP 69K to DIN 40 050-9

Supply includes:

Connection cable, length 1.8 m, with PS/2 connector and hex nuts.

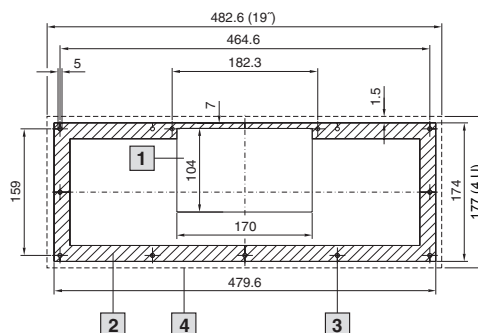


	Model No. SM
Stainless steel keyboard	6446.010



Rittal service:

Country-specific layout available on request.



- 1 Front panel cut-out
- 2 Seal
- 3 Holes for fastening bolts
- 4 Contact surface



Fold-out tray for keyboard and mouse

- For installation in
- 600 and 800 mm wide doors
 - 482.6 mm (19") swing frames and enclosures

Standard double-bit lock insert which may be exchanged for lock inserts 27 mm, version A, see page 956 and for lock cylinder SZ 2571.000, see page 957.

Material:

Flap: Sheet steel
Side parts: Cast aluminium
Tray: Extruded aluminium section

Surface finish:

Cover, side parts: RAL 7035
Tray: Natural-anodised

Protection category:

IP 55 to EN 60 529/09.2000



Accessories:

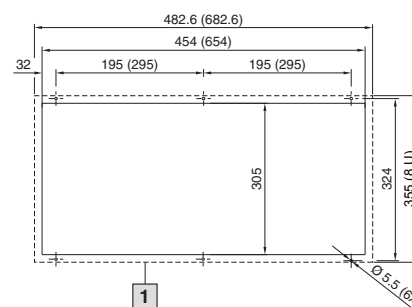
Mousepad support, pull-out, see page 1140.



Rittal service:

Other widths available on request.

Mounting cut-out



- 1 Contact surface

For door width mm	External dimensions WHD mm	Installation depth mm	Max. keyboard size WHD mm	Model No. SZ
600	482.6 (19") x 355 (8 U) x 126	93	405 x 50 x 250 405 x 50 x 195 ¹⁾	2379.600
800	682.6 x 355 (8 U) x 126	93	605 x 50 x 250 605 x 50 x 195 ¹⁾ 475 ¹⁾ x 50 x 250	2379.800

¹⁾ Maximum keyboard size with holder for mouse.

Monitors, keyboards



Support for mousepad, pull-out

with mouse holder

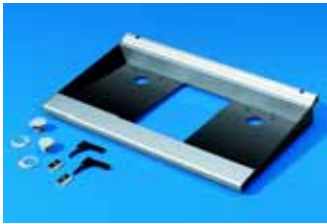
For screw-fastening into the fold-out tray
SZ 2379.600/SZ 2379.800.

To fit all standard mousepads up to
250 x 205 mm.

Note:

When installing the fold-out tray into the swing frame, the swing frame must be open in order to pull the mousepad out of the fold-out tray.

Packs of	Model No. SZ
1 set	2379.900



Support

for keyboards

for max. 473 x 210 mm.

Prepared for

- Cable gland
- Support for mousepad, vertically hinged (SM 2383.020)

Material/surface finish:

Side parts: Sheet steel, RAL 7024

Front and rear:

Extruded aluminium section, natural-anodised

Supply includes:

2 clamping screws, end stoppers, cover plate, cable entry grommet and nylon loop tape.



Rittal service:

Other widths available on request.

May be ordered as a complete unit with Comfort Panel operating housing (see page 197), VIP 6000 (see page 216) or Optipanel (see page 207) via design code number.

Packs of	Model No. SM
1 set	2383.000



Also required:

For mounting on surfaces:
Enclosure surface connector,
see page 1118.



Accessories:

Mousepad support, pull-out,
see page 1146.

Detailed drawing

for Comfort Panel,
see page 1202,
for VIP 6000,
see page 1213,
for Optipanel,
see page 1205.



Utility bars, vertically hinged

To support standard keyboards during programming and servicing work.
Mounting distance between utility bars at least 300 mm to allow problem-free insertion.
Depth adequate for keyboards up to max. 210 mm.

For mounting beneath:

- Comfort Panel¹⁾
- VIP 6000 with narrow or combined frame²⁾
- Optipanel³⁾
- Any sufficiently large surface, such as:
 - Worktops IW
 - Quickline panel
 - Operating housing
 - Command Panel housing with door

on:

- Vertical services (doors/side panels)

Min. front panel width

¹⁾ 385 mm

²⁾ 370 mm

³⁾ 405 mm

After use, the utility bars fit securely and neatly under the mounting surface, thus giving the operator more space to move around.

Packs of	Model No. CP
1 set	6514.200

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.





Keyboard rack, 482.6 mm (19")

- 482.6 mm (19") rack-mounted chassis 1 U, 430 mm deep
- Prepared for the installation of 482.6 mm (19") keyboards with touchpad or trackball with the following dimensions:
max. height: 39 mm,
max. width: 417 mm,
max. depth: 210 mm
- Solid, lockable front
- Telescopic slides with integral clamp
- Prepared for installation of a mousepad

Material:
Sheet steel

Packs of	Model No. RP
1	3659.520

Colour:
RAL 7035

Supply includes:
19" keyboard rack **without keyboard**,
connection cable,
mounting bracket for 800 and 900 mm
enclosure depth,
assembly parts.



Mousepad

for keyboard drawer

- For optional mounting on the left, right or front of the keyboard rack (fold-away design)
- Maybe folded into the keyboard drawer after use
- Only suitable for use in conjunction with 482.6 mm (19") keyboards with a total height of max. 39 mm (Model No. RP 3659.590)

Material:
Sheet steel

Packs of	Assembly	Model No. RP
1	right/left	3659.620
1	at the front	3659.630

Colour:
RAL 7035

Supply includes:
Assembly parts.

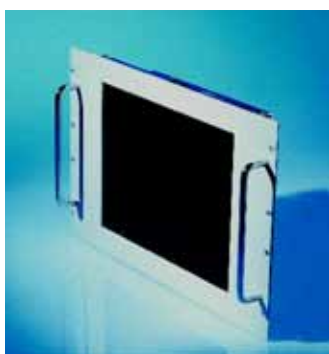


Keyboard, 482.6 mm (19")

- 482.6 mm (19") keyboard for installation in the 482.6 mm (19") keyboard drawer in conjunction with the touchpad mouse
- German keyboard layout
- 38.9 mm high keys facilitate installation in 1 U keyboard drawers
- PS/2 connector
- IP 20
- Touch-sensitive technology
- W x H x D = 405 x 38.9 x 180 mm
- 105 keys (including WIN 95 keys)
- Actuating force 0.6 N/4.0 mm
- Operating temperature: 0°C to 50°C

Packs of	Model No. RP
1	3659.590

Supply includes:
Connection cable.



TFT display, 15"

- 19" front panel 7 U, RAL 7035
- TFT LCD 15.1"
- Automatic brightness control depending on the ambient light
- Anti-reflection coated safety glass screen
- Brightness: 250 cd/m²
- On-screen display
- Colours: 16.7 million
- Power pack: Input voltage: 100 – 240 V AC, output: 12 V DC/3.75 A
- OSD membrane keyboard and infrared sensor
- VGA + SVGA, non-interlaced
- Maximum resolution 1024 x 768 pixels
- Contrast ratio: 300 : 1
- Viewing angle: 160° (H+V)
- Video input 15-pin D-SUB (analog RGB)
- RS-232 monitor interface

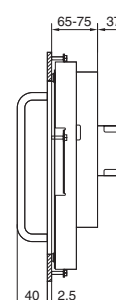
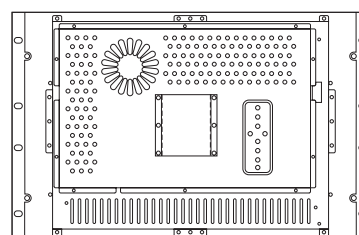
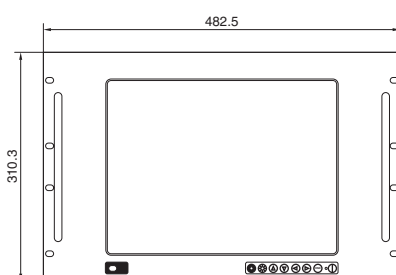
Packs of	Model No. RP
1	3659.530

Material:
Front panel: Aluminium, powder-coated

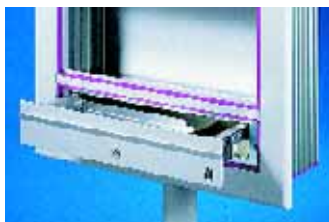
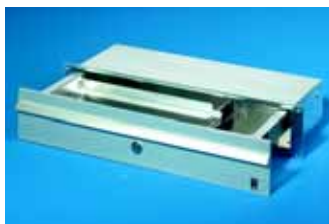
Colour:
RAL 7035

Protection category:
Tested to EN 60 950 and
EMC directive 89/336/EEC.

Note:
Depth varies according to the display design
(protective glass, touchscreen etc.).



Drawers for keyboards



Keyboard drawer 19"/2 U for keyboard and mouse

For installation in:

- Comfort Panel¹⁾
(from an installation depth **A2** = 152 mm, see page 198).
- VIP 6000 Command Panel¹⁾
(all installation depths **1** to **9**, see page 217).
- Optipanel command panel¹⁾
(installation depth **3** = 150 mm, see page 207).
- Any sufficiently large surface
(e.g. door, side panel).
- 482.6 mm (19") systems.

Suitable for

- Accommodation of keyboards up to max. 390 x 32 x 139 mm.
- Support of standard commercially available mouse or trackball.

Design:

- Drawer:
 - with stay
- Front panel
 - with security lock (lock no. 12321)
 - with handle strip

Width mm	Height	Depth mm	Model No. CP
482.6 (19")	2 U	150	6002.000

Material:

Drawer housing:
Sheet steel, zinc-plated, passivated
Drawer and front panel:
Aluminium, natural-anodised.

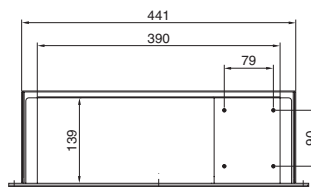
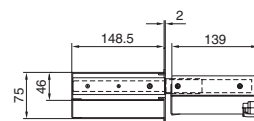
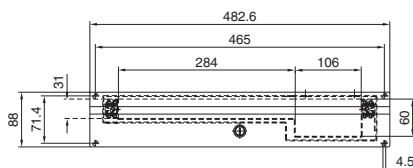
Supply includes:

Assembly parts for installation in Comfort Panel/ VIP 6000/Optipanel command panels.

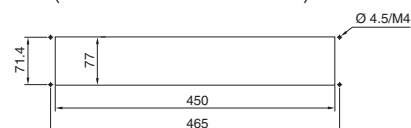


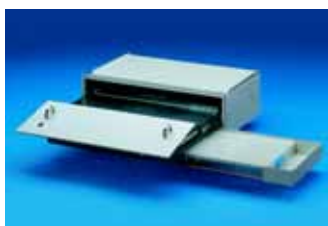
Also required:

- ¹⁾ For sub-division of the operating front:
- Comfort Panel requires one cross member (see page 199, version 2.2).
 - VIP 6000 requires one cross member (recommended) or sealing bar (see page 218, version 3.2).
At the same time, the end trim (see page 219, version 3.4) must be selected.
 - Optipanel requires one cross member (see page 208, version 2.2).



Mounting cut-out (for installation in surfaces)





Drawer for keyboard and mouse

with mousepad support

For installation in:

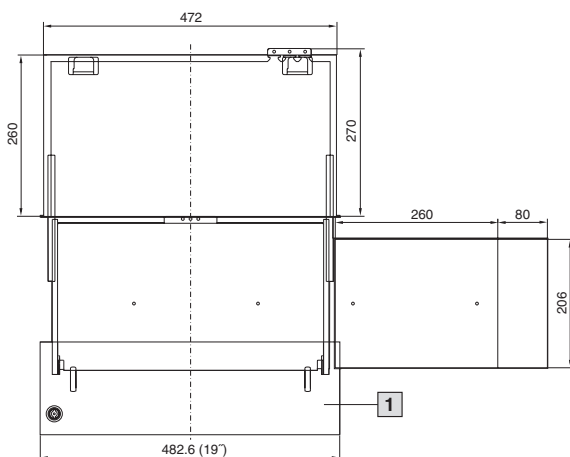
- VIP 6000 Command Panel¹⁾ (installation depth **4**, **6** or **8**, see page 217, 3.1)
- Any sufficiently large surface (e.g. door, side panel).

Suitable for accommodating

- Keyboards up to a maximum of 460 x 42 x 170 mm.
- Standard mouse and mousepad

Design:

- Drawer and enclosure
 - with side pull-out mousepad support and tray
- Front panel
 - with 3 mm double-bit lock insert
 - folds out as a wrist support



1 Front trim panel

Width mm	Height	Depth mm	Model No. CP
482.6 (19")	3.5 U	261	6003.000

Material:

Keyboard and drawer: Sheet steel
Front panel: Aluminium, natural-anodised.

Supply includes:

Assembly parts for installation in VIP 6000 Command Panel.



Also required:

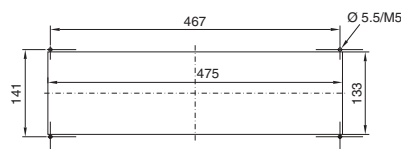
¹⁾ For sub-division of the operating front, a cross member (see page 218, version 3.2) is required. The end trim (see page 219, version 3.4) must be selected at the same time.



Accessories:

Standard double-bit lock insert may be exchanged for 27 mm lock inserts, version A, see page 956.

Mounting cut-out for installation in surfaces



Keyboard drawer 1 U

for 482.6 mm (19") attachment level

This space-saving keyboard drawer is screw-fastened to the front and rear 482.6 mm (19") attachment level.

The installation spacing is infinitely adjustable from 460 – 800 mm.

It is fully extendible, lockable, with strain relief and hinged cable support.

The drawer is suitable to accommodate 482.6 mm (19") keyboards.

Interior dimensions:

W x H x D approx. 420 x 40 x 220 mm

Material:

Sheet steel

Colour:

RAL 7035

Supply includes:

Assembly parts, excluding keyboard.



Note:

Monitor/keyboard unit, 1 U, see page 840.

Distance between levels mm	Model No. DK
460 – 800	7281.200



Accessories:

482.6 mm (19") long-stroke keyboard with numeric keypad and touchpad, connection cable (approx. 1.15 m) and PS/2 connector, colour RAL 7035.

W x H x D mm	Keyboard layout	Model No. DK
415 x 37 x 193	German	9004.400
	US English	9004.402
	French	9004.403
	Spanish	9004.404
	Finnish	9004.406
	Swedish	9004.407

Human/machine interface

Monitors/drawers for keyboards



Panel for monitors

for monitors with screen diagonals of up to 17"
For mounting between 482.6 mm (19") mounting angles. Fitted with safety glass.

Material:
Sheet steel

Colour:
RAL 7035

U	Model No. DK
9	7300.135



Monitor drawer 1 U with 15" TFT

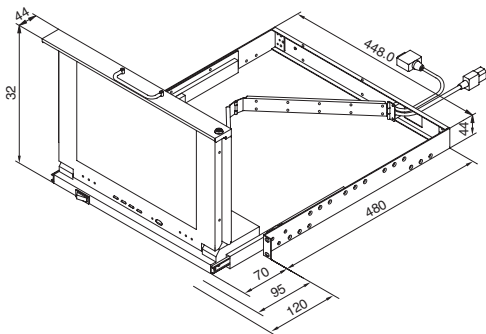
- 19" rack-mounted chassis 1 U, 480 mm deep
- Including installation kit for depth-variable mounting in enclosures/cases with depths from 600 – 900 mm
- Display pulls out forwards
- Lockable at the front
- Telescopic slides with integral clamp

Material:
Sheet steel, spray-finished

Colour:
RAL 7035
Special colours available on request

Supply includes:
Monitor drawer fully populated, assembly parts.

Protection category:
IP 40



Model No. RP	3659.660
Technical design	
TFT screen with anti-reflection coated safety glass	15" (381 mm)
Maximum resolution	1024 x 768
Full screen	VGA + SVGA
Colours	16.7 million
Brightness	250 cd/m ²
Contrast ratio	350 : 1
Mains voltage	100 – 240 V AC, 48 – 62 Hz
Connections on the rear	
Mains voltage	IEC 320 connection
Video input	Analog (D-SUB 15-pole, jack)
	Digital (DVI-D, jack)



Keyboard drawer 2 U

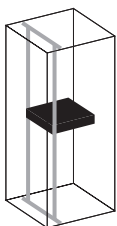
for one 482.6 mm (19") attachment level
For keyboards up to 430 mm wide and 250 mm deep with the front panel folded over.

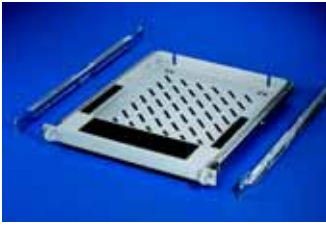
Material:
Sheet steel with aluminium front, spray-finished in RAL 7035.

Supply includes:
Lockable drawer with handles, hinged front, pull-out mouse pad, mouse support, practical cable entry and strain relief.

Height	Model No. DK
2 U	7281.035

Installation depth: 390 mm.





Drawer 482.6 mm (19")

for keyboard

For attaching to the 482.6 mm (19") mounting angles front and rear. Suitable for standard keyboards > 482.6 mm (19"). Keyboard support with non-slip base, plus wrist support. Depth-variable installation from 610 – 950 mm. Clearance opening W x H x D: 408 x 40 x 550 mm.

Material:

Sheet steel

Colour:

RAL 7035

Supply includes:

Assembly parts, excluding keyboard.

Packs of	Model No. DK
1	7063.888

Note:

Installation only possible on L-shaped and cranked 482.6 mm (19") mounting angles and/or 482.6 mm (19") mounting frames.



Support for mousepad

for command panels and surfaces

The angle of the mousepad support is individually adjustable. Two holes are needed on the enclosure for attachment purposes.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.



Weight kg	Model No. SM
1.0	2381.000



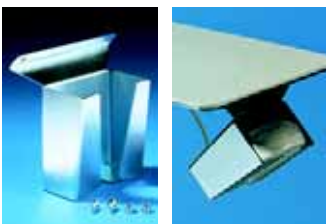
Also required:

Vertical handle set for wide frame (for mounting on VIP 6000 with wide front frame), see page 1116.



Accessories:

Holder for mouse, see page 1145.



Holder for mouse

To fit mousepad support and for secure accommodation of a standard mouse.

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.

Weight kg	Model No. SM
0.3	2382.000



Also required:

Support for mousepad, see page 1145.

Human/machine interface

Drawer for keyboards/mouse, mousepad



Mousepad, passive

For installing in PC enclosures based on ES.
Pulls out to the front or on the left or right.



For fold-out tray of PC enclosure/case	Model No. PC
4603.920 4617.920	4613.000

German patent no. 43 30 926

For drawer of PC enclosure/case	Model No. PC
4603.603 4603.913 4609.703 4617.703	4614.000



Support for mousepad, vertically hinged

For mounting on the left/right, beneath support
for keyboards. Latches home automatically, both
when retracted and extended.

With mounting holes for mouse holder
(SM 2382.000).

With cut-outs for cable routing and holes for
attachment via cable ties, for fast assembly
(SZ 2597.000).

Material:

Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.



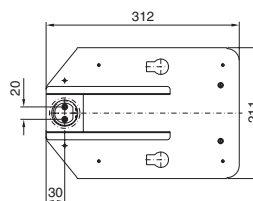
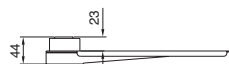
Packs of	Model No. SM
1	2383.020



Accessories:

Holder for mouse,
see page 1145.

Cable ties,
see page 1066.



Mobile workstations/shelf for mobile workstations



Mobile workstation

for tower PCs, printers, UPS, servers etc.

Load capacity: 75 kg

Material:
Sheet steel

Colour:
RAL 7035

Supply includes:
1 mounting frame,
2 shelves top/bottom,
1 set of telescopic slides,
1 handle,
1 cable support, hinged,
mounting accessories.



Packs of	Model No. PC
1	4641.000

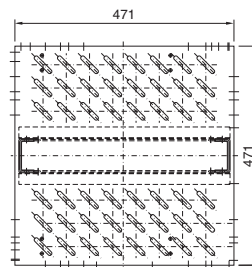
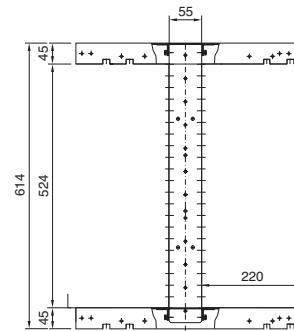
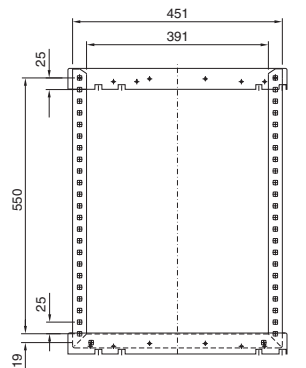
! Also required:

For enclosure depth mm	For installation in	
	TS, PC based on TS, IW 2 punched sections with mounting flanges, see page 993	ES, PC based on ES, AP universal console 2 punched sections without mounting flanges ¹⁾ , see page 998
600	TS 8612.060	PS 4376.000
800	TS 8612.080	PS 4377.000

¹⁾ plus:
4 support brackets, PS 4183.000, see page 1007,
8 threaded blocks M6, PS 4162.000, see page 1010,
8 screws M6, SZ 2504.500, see page 1011.

+ Accessories:

Fastening bolt DK 7115.000, see page 1026.
Shelf, see page 1147.



Shelf

for mobile workstation

For additional equipment such as modems, power packs etc. or simply as a paper tray. Installation height-adjustable on a 25 mm pitch pattern.

Material:
Sheet steel

Colour:
RAL 7035

Supply includes:
Assembly parts.

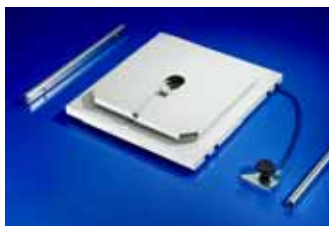
Packs of	Model No. PC
1	4642.000

+ Accessories:

Fastening bolt DK 7115.000, see page 1026.

Human/machine interface

Printer accessories



Printer base, swivel

Operation of the printer for servicing purposes is possible, even in enclosures with are only accessible from the front.

Load capacity: 20 kg.
Surface for printer 340 x 360 mm.

Material:
Sheet steel

Colour:
RAL 7035

Supply includes:
Component shelf,
turntable with cable routing
and stay,
telescopic slides.



To fit TS width x depth mm	Model No. IW
600 x 600	6902.990



Also required:

2 TS punched sections with mounting flanges for enclosure depth of 600 mm, see page 993.



Accessories:

Paper tray,
see page 1148.



Paper removal flap

for printer cabinet IW 6900.110

Facilitates easy removal of pages from the printer without opening the enclosure door. Plexiglass flap with magnetic lock.

Paper removal flap	Colour RAL	Model No. IW
DIN A4	7015	6903.200
With cut-out to specifications	7015	6903.299¹⁾

¹⁾ Delivery times available on request.



Paper tray

for laser printers with rear output.

Printed pages are routed to the outside and collated. The door only needs to be opened for servicing purposes. This protects the printer against dust, humidity and theft. The paper tray may be mounted on surfaces with a width of 600 mm or more (e.g. door, side panel) and accommodates up to 20 pages of standard A4 paper.

Material:
Sheet steel

Colour:
RAL 7035

Supply includes:
Assembly parts.



Width x height x depth mm	Model No. IW
270 x 390 x 122	6903.000



Accessories:

Printer base, swivel,
see page 1148.



Rittal service:

Installation in doors and side panels on request.



Base

for tubular door frame

The space-saving alternative instead of component shelves to accommodate tower PCs (maximum 20 kg). For screw-fastening to the tubular door frame of 600 mm wide enclosures based on TS.

Load capacity: 20 kg.

Material:

Sheet steel, spray-finished

Colour:

RAL 7015

Supply includes:

Retaining strap and assembly parts.

Width x height x depth mm	Model No. IW
495 x 159 x 230	6902.950



Also required:

Support strips for direct screw-fastening to the tubular door frame, see page 997.



Interface box

For secure accommodation for all common computer ports, 3 1/2" disk drives and sockets. The lockable metal cover provides a high mechanical load-bearing capacity, protects against unauthorised access and ensures an increased shielding effect for the installed equipment.

Modifications such as

- Other sizes
- Acrylic covers
- Cut-outs for connectors etc. are possible on request.

Material:

Frame:

Extruded aluminium section, powder-coated

Mounting tray:

Sheet steel, 1.5 mm, powder-coated

Flap:

3.0 mm aluminium, natural-anodised

Colour:

RAL 7035

Supply includes:

Frame with hinged flap,

cam with security lock (no. 12321).

Mounting tray including seal and assembly parts.

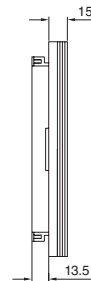
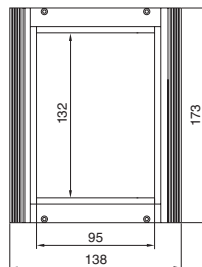
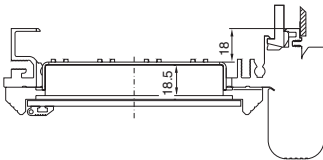
Weight kg	Model No. SZ
0.8	2482.000



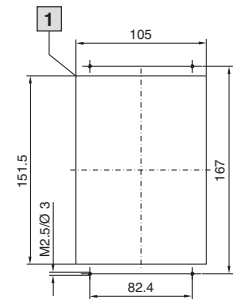
Rittal service:

Upon request, the interface box can be supplied with customer-specific cut-outs, pre-installed in the operating housing. If required, please specify the desired treatment and installation position.

Mounting example in the VIP 6000:



Mounting cut-out



1 Max. R3

Human/machine interface

Interface accessories



Interface flap

The compact alternative to the interface box SZ 2482.000.

For secure accommodation of all standard sockets, computer ports, 3 1/2" or CD-ROM drives. The cast aluminium flap ensures a high mechanical load-bearing capacity, and guards against unauthorised access.

For:

- Comfort Panel from D = 113 mm
- Optipanel from D = 100 mm
- Any sufficiently large surface

Standard double-bit lock insert may be exchanged for 27 mm lock inserts, version F, see page 956.

Material:

Flap: Cast aluminium, finely-textured
Board: Sheet steel 2 mm, zinc-plated, passivated

Colour:

RAL 7035

Protection category:

IP 65 to EN 60 529/09.2000

Supply includes:

Seal and assembly parts.



Packs of	Model No. SZ
1	2482.200

Note:

For side mounting in 100 mm deep Optipanel, a handle set (CP 6385.0XX, see page 1115), may be mounted, although not in the same place.



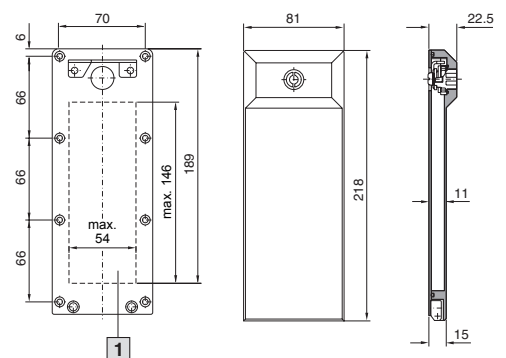
Rittal service:

Cut-outs are possible in the cover plate and enclosure.

Available without cover plate on request.

View without flap

View with flap



1 Surface for interface cut-outs



Interface extension with wall connection and built-in RJ 45 module

For extending the internal enclosure interfaces – e.g. from industrial PCs and switches – up to the outside of the enclosure. The wall connection only needs the same space as a switch.

Benefits:

- Rapid access for maintenance work
- The protection category of the enclosure is preserved
- The lock nut cuts automatically into the spray-finish or eloxal layer, thereby creating a conductive connection
- Captive protective cap

Material:

Enclosure: Brass, nickel-plated
Cover: Aluminium, anodised
Seal: Polyamide

Protection category:

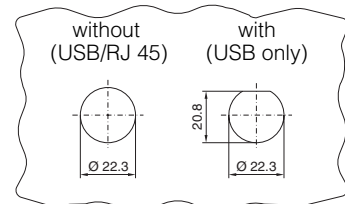
IP 66/67 to EN 60 529/09.2000
(with the protective cap closed)



Rittal service:

Slots or installation ex-works in the Comfort Panel, Optipanel and VIP 6000 (via version code).
Cut-outs in many Rittal enclosures.

Anti-twist guard



Material thickness: 1 – 6 mm

Design	Wall connection	Inside	Length m	Packs of	Model No. SZ
USB	Type A jack	Type A connector	0.5	1	2482.210
			1.0	1	2482.220
			2.0	1	2482.230
RJ 45	Jack	Connector	0.5	1	2482.700
			1.0	1	2482.710
			2.0	1	2482.720
RJ 45	Jack	Jack	–	1	2482.730

Other versions and lengths available upon request.



Interface flaps, modular

For universal use in all situations where rapid access to interfaces and sockets is needed. The affected enclosure remains closed and is therefore protected from ambient influences and unauthorised access.

Space-saving installation e.g.

- in **small enclosures and compact enclosures** as a programming interface for controllers
- in **IT and industrial enclosures** as maintenance access for networks
- in **PC enclosures and console systems** for the temporary connection of additional equipment
- in mobile **Industrial Workstations** for rapid connection to existing network structures
- in **Command Panel systems** for programming and maintenance of integral components.

The mounting frame has a flap which snaps into position in various stages at opening angles of 90 to 180°. A snap fastener ensures a reliable seal. This may be locked if required.

Material:

Mounting frame and metal flap:
Fine die-cast zinc, matt nickel-plated
Plastic flap: Polycarbonate (semi-transparent)
Lock: Polycarbonate, RAL 7024

Protection category:

IP 65 to EN 60 529/09.2000 with sealed flap and proper assembly.



Rittal service:

Cut-outs and mounting in many Rittal enclosures.

Detailed drawing and installation dimensions, see page 1304.

Description	C-UL	UL	Packs of	Model No. SZ
Mounting frame¹⁾				
1 Single, with plastic flap (semi-transparent)			1	2482.300
2 Double, with plastic flap (semi-transparent)			1	2482.310
3 Single, with metal flap	■	■	1	2482.320
4 Double, with metal flap	■	■	1	2482.330
Socket modules				
5 Germany (VDE), spring-action terminals max. 2 x 2.5 mm ² , connection at rear			1	2482.400³⁾
6 Germany (VDE), screw terminals max. 6 mm ² , connection at rear, colour: yellow (RAL 1016), for installation in front of main switch			1	2482.410³⁾
7 USA NEMA 5-15, plug-in solder connection 4.8 x 0.8 mm	■	■	1	2482.420⁴⁾
8 USA NEMA 5-15, plug-in solder connection 4.8 x 0.8 mm (N, PE) 6.3 x 0.8 mm (phase), fuse 3 A	■	■	1	2482.430⁴⁾
Interface inserts				
9 2 x SUB-D9 (jack/pin)	■	■	1	2482.500
10 SUB-D9 (jack/jack)	■	■	1	2482.510
11 SUB-D9 (jack/pin), SUB-D25 (jack/pin)	■	■	1	2482.520
12 SUB-D25 (jack/pin)	■	■	1	2482.530
13 2 x USB A (jack/jack)	■	■	1	2482.540²⁾
14 RJ 45 (jack/jack, Cat. 5e), SUB-D9 (jack/jack), SUB-D9 (pin/pin)	■	■	1	2482.550
15 2 x RJ 45 (jack/jack, Cat. 5e)	■	■	1	2482.560²⁾
16 USB A (jack/jack), RJ 45 (jack/jack, Cat. 5e), SUB-D9 (jack/pin)	■	■	1	2482.570²⁾
17 RJ 45 (jack/jack, Cat. 5e), SUB-D9 (jack/pin), SUB-D25 (jack/pin)	■	■	1	2482.580
18 Blanking plate (slimline), for individual population, usable area: 45 x 75 mm	■	■	1	2482.590

¹⁾ Electrically conductive.

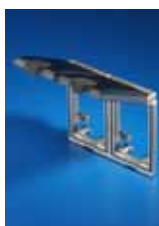
²⁾ Conductively linked to mounting frame.

³⁾ Rated voltage: 250 V AC, rated current: 10 – 16 A

⁴⁾ Rated voltage: 125 V AC, rated current: 15 A (SZ 2482.420)/3 A (SZ 2482.430)

All SUB-D interfaces may be rotated while in operation.

Other socket modules and interface inserts available on request.



1

2



3

4



11

12

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18



Rittal on the Internet

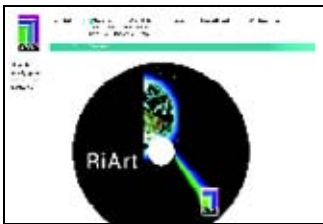
With innovations, product summaries and many other topics available on our homepage, Rittal's customers always have access to the very latest information. Product data, contract tender texts, dimensions and assembly instructions in Acrobat Reader format and demo versions of the Rittal software are available at any time for downloading from www.rittal.com. Want to order brochures via the Internet? No problem, with our special brochure request feature on our homepage. Rittal can also be contacted by e-mail.

Internet services:

- Extensive product database with CAD drawings
- Configurators and solution visualisations
- Assistance with planning and calculation
- Online generation of text folders for tender texts

More detailed information at:

www.rittal.com



RiArt

The electronic price list with product catalogue offers you:

- Data sheets in HTML, text and PDF format
- Excel price list
- DATANORM/ELDANORM component database
- Catalogues to eCI@ss/ETIM/BMEcat
- Shopping basket with Excel interface
- Item data for EPLAN
- Contract tender texts
- DWG catalogue drawings
- Assembly instructions
- Quick climate calculation
- Software demo
- PDF pages from our latest brochures
- Accessory assignment

Note:

Please order your free copy from www.rittal.com!

German language only.



PlanIT

From Rittal's extensive range of products and solutions, we have compiled the information that is specifically relevant for the planning of IT enclosures, IT infrastructure and data centres.

The following applications are contained on this CD:

- Product overview
- Product search
- Documentation
- Enclosure monitoring software
- Drawings (VISIO)
- Brochures
- Tender texts (TXT, DOC, PDF, GAEB format)
- Contacts and contact details
- Lists of materials

Note:

The software PlanIT is sent free of charge on CD. Request your copy at info@rittal.de
For an online preview, go to: www.rittal.com/planit



Rittal Power Engineering

The configurator for Ri4Power low-voltage switchgear

For

- Form 1: High-current power distributor
- Form 1: Distribution enclosure
- Forms 2-4: Low-voltage switchgear

The multi-lingual software package includes the following functions:

- Project handling, from the initial enquiry through to ordering
- Complete, automatic function for the generation of bills of materials and a calculation program for producing a quote
- Input and evaluation of assembly times to determine labour values
- Access to the entire range of Rittal products
- Output of orders including combining several projects into one order

Supply includes

CD-ROM

Language: German/English/French/Dutch/Swedish/Czech/Italian/Polish/Russian

Model No. SV	3020.300
---------------------	-----------------

- Generation of special fields configured by the customer with graphical processing in the CAD view
- Import/export interfaces for product and CAD data
- Export function of order and parts lists in Excel or CSV format
- Calculation based on current copper price
- Integration of the new product range form subdivisions as per Forms 2, 3 and 4 (Ri4Power).
- Interface to Eplan Electric P8, for the export of CAD data and bills of materials
- The extra benefit for engineering and planning offices: Output of detailed tender texts on the basis of plant project-planned in Power Engineering in MS Word/GAEB format



Rittal PlanSV

Software support for engineering and planning offices.

With PlanSV, Rittal makes an extensive range of information available for the planning of Rittal Ri4Power low-voltage switchgear.

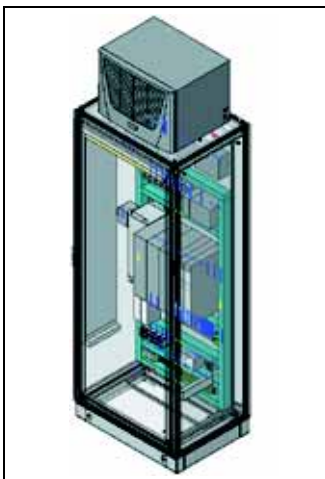
The German-language planning software includes the following functions:

- Contract tender texts
- Drawing templates
- Calculation aids
- References
- Application images
- Assembly instructions
- Documentation

Note:

Rittal PlanSV is available free of charge at www.rittal.com.

German language only.



EPLAN Cabinet

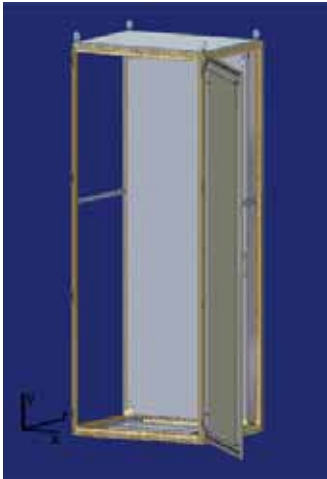
Productivity increases, from electrical planning, to enclosure population, through to production

The electrical planning and mechanical installation of an enclosure are combined into an integrated workflow with EPLAN Cabinet.

Equipment and component data is transferred from the wiring schematic from EPLAN Electric P8 or earlier versions of EPLAN into the layout plan. Rittal enclosures are integrated as original 3D models via component libraries (Rittal RiCAD-3D). Cable trunking, support rails, terminals and devices may be positioned in the 3D representation of the enclosure at a click of the mouse. Collision controls ensure compliance with distances and blocked surfaces, and help to avoid design errors.

Automatic generation of bills of materials and order lists are, of course, included, as are high-quality, dimensioned drawings for plant documentation.

Supplementary modules such as routing or NC generate drilling plans and programs, optimised wiring paths and lists, as well as information for drilling and milling machines. The simple planning and detailed documentation of EPLAN Cabinet support an optimum workflow, from the wiring schematic through to the populated enclosure.



RiCAD 3D

The download platform for seamless integration of Rittal CAD data into your plant designs

Irrespective of which CAD system you use, RiCAD-3D effectively supports the efficiency and productivity of your plant design.

- Considerable reduction of engineering and design work
- Shorter assembly times
- Error-free detailed Rittal data
- Generic original files in 2D and 3D format – no conversion of neutral formats

Online access to original data for virtually any CAD system via:

www.rittal.com/RiCAD3D

Supply includes

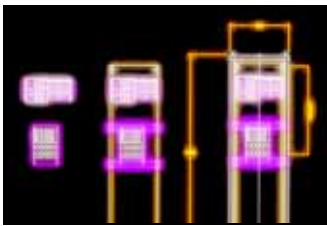
CD-ROM

Language: German/English/Russian/Chinese

Model No. SZ	2406.110
---------------------	-----------------

CD-ROM with CAD data for the following formats:

- AUTOCAD DWG, DXF (>R12)
- ProE 2001
- ProE Wildfire
- SolidWorks 3D (= 2003)
- SolidWorks 3D (≥ 2004)
- EPLAN Cabinet
- Neutral Step format



RiGeo

From the design into the CNC machine

With the RiGeo CD-ROM, Rittal offers an extensive library of geometry data for virtually all Rittal products in a variety of views and data formats. The files on the CD-ROM are divided into directories based on individual product groups to simplify the search process. It also supports a database search function.

Installation on the hard disk is not necessary, since the data may be read directly from the CD-ROM into your CAD system.

Features in brief:

- No unnecessary, memory-consuming storage on the hard disk.
- Simple positioning of accessory components.
- The correct format to suit every application.
- Representation to scale, suitable for CNC machining.

Supply includes

CD-ROM

Language: German/English/French/Dutch

Model No. SZ	2406.100
---------------------	-----------------



RiDiag II

RiDiag II is a tool for diagnosing the operating behaviour of Comfort controller-regulated cooling units. By connecting a PC, it is possible to retrieve error messages, temperatures and capacity utilisation levels of the cooling units which are stored in the Comfort controller. The system includes integrated temperature measurement from four sensors in the cooling unit, and also features graphical representation of the temperature development over time.

Supply includes

CD-ROM

Language: German/English/Italian/French

Connection cable

Model No. SZ	3159.100
---------------------	-----------------



Therm Software

Rittal Therm is a calculation program for climate control of enclosures.

All electrical and electronic components have a certain power loss which is dissipated to the environment in the form of heat. Because an increasing number of components are now being housed in ever smaller spaces, the heat produced can soon reach levels which are harmful to electronic components and may severely curtail their useful lives.

The Therm software package takes care of the complex calculation of climate control requirements. A user-friendly interface guides the operator to the most suitable, correctly dimensioned climate control component.

All evaluations are closely based on the requirements of IEC/TR 60 890 AMD 1/02.95 and DIN 3168 for enclosure cooling units.

Supply includes

CD-ROM

Languages: Available in 13 languages

Model No. SK

3121.000

Note:

Your 30-day trial version may be downloaded at www.rittal.com



RiWatchIT

Video edition (for Rittal IP-Cams)

This client/server application is the management centre for the Rittal video monitoring system. This software allows several cameras to be monitored, controlled, and on request linked to CMC-TC sensors.

Note:

The RiWatchIT "Video Edition" software can only be used with Rittal IP-Cams (DK 7555.xxx)!

Further information:
www.rimatrix5.com

Model No. DK

RiWatchIT Video Edition

7555.300

Benefits and functions:

- Cost-effective, because it uses the existing network infrastructure
- Future-proof IP technology
- Flexible use for data centre and indoor building monitoring
- Global access is supported via IP networks
- Scalability – the system grows along with your requirements
- Free monitoring software for Rittal IP-Cams
- Supports a unique link with the CMC-TC sensors
- 16 camera views may be represented simultaneously

For detailed information,

see page 847/848.



IT-Check certification

IT-check certification offers:

- Planning confidence for data centres and server rooms
- Review of the sensitivity of IT applications to failure
- Automatic determination of protection requirements
- Target description of the technical supply infrastructure
- Target description of the security equipment

Supply includes

CD-ROM

Language: German/English

Model No. DK

7200.950