The VIP 6000 offers exceptionally diverse opportunities.

Each of the three frames conveys its own design line with special functions. Each enclosure is manufactured to order and covers every conceivable requirement.

### Protective rights for frames:

- **German patent** no. 195 25 876
- **German patent** no. P 41 09 695
- **European patent** no. 0 505 681 with validity for DE, FR, GB, IT
- **European patent** no. 0 839 299 with validity for FR, GB, IT
- **Jap. patent** no. 3199745
- **Jap. patent** no. 3221506
- **South Korean patent** no. 97-70 77 12
- **US patent** no. 5,921,050
- **German registered design** no. M 94 02 325
- **IR reg. design** no. DM/053 168
- **Japanese patent** no. 63 77 983
- **Austrian registered design** no. 17467
- **Swedish registered design** no. M 94 02 325
- **IR reg. design** no. DM/053 168
- **US design patent** no. des. 375,726
- **Brazilian design pattern** no. DI 5500 709-0
- **US patent** no. 5,921,050
- **German registered design** no. M 94 02 325
- **IR reg. design** no. DM/053 168
- **US design patent** no. des. 375,726

### Three customised design lines

- **Wide frame**
  - A frame and handle in one; the ideal choice where enclosures with fins all round are used for better heat dissipation.

- **Narrow frame**
  - An eye-catching design with its stylish lines, particularly for small enclosures.

- **Combined frame**
  - The soft-coated frame at the sides is particularly sympathetic to the touch. This is also suitable for use with enclosures with fins at the sides.

### Enclosure/rear panels

- There is a choice of five installation depths (155, 185, 295, 328 and 438 mm). Either screw-fastened or hinged, depending on requirements.

- Because it is equipped with cooling fins, the VIP 6000 solution often eliminates the need for active cooling components.

- Screw-fastened or vertically/ horizontally hinged – choose the rear panel to suit your servicing requirements.

### Attachment/trim

- Each attachment point all round is achieved with sliding retaining claws.

- The screw heads disappear stylishly beneath the cover trim (A).

- Front panels with threaded bolts may also be combined with the end trim (B) or spacer trim (C).

- Panels with screw clamp (D) are mounted with the end trim.
Nothing's impossible . . .

A kaleidoscope of incredible solution diversity. Configure your perfect enclosure.
Allow yourself to be inspired by these examples: e. g. by the front divisions, the handle arrangements, the enclosure depths, and much more besides.

. . . with wide frame.

A small selection from the wide range of opportunities available. For enclosures with cooling fins, the wide frame is important.

Example A
- Operating housing, 155 mm deep
- Support for keyboards with cable entry grommet
- Frame connector, adjustable
- Vertical handle set
- With vertical and horizontal cross member
- Support arm connection at the bottom

Example B
- Operating housing, 155 mm deep
- Side keyboard housing, 44 mm deep
- Frame connector, rigid
- Vertical handle set with clipboard
- With horizontal cross member and vertical sealing bar
- Support arm connection at the bottom

Example C
- Operating housing, 155 mm deep
- Keyboard housing at top, 44 mm deep, with frame connector, adjustable
- Keyboard housing at bottom, 44 mm deep, with frame connector, rigid
- Cable tube, flexible
- Vertical handle sets
- Support arm connection at the bottom

Example D
- Operating housing, 155 mm deep, with vertical handle set
- Keyboard housing with handle set horizontal and vertical
- Cable tube, flexible
- Support arm connection at the bottom

Example E
- Operating housing, 155 mm deep
- Keyboard housing, 105 mm deep
- Frame connector and cable tube, rigid
- Support arm connection at the bottom

Example F
- Operating housing, 438 mm deep, e. g. for colour screen
- With handle set vertical
- With horizontal sealing bar
- Support arm connection, top

Rittal Command Panel VIP 6000
Configuration examples
**Configuration examples**

**. . . with narrow frame.**
Stylish lines for small enclosures and those without fins.

- **Example G**
  - Operating housing, 155 mm deep
  - With U handle, vertical
  - Enclosure connector, adjustable, on the left-hand side for vertically hinged wall mounting

- **Example H**
  - Operating housing, 155 mm deep
  - Keyboard housing, 105 mm deep
  - Enclosure duct connector
  - Support arm connection at the bottom

- **Example I**
  - Operating housing, 155 mm deep
  - Keyboard housing, 44 mm deep
  - Hinged frame connector
  - U handles, vertical
  - Cable tube, flexible
  - Support arm connection, top

**. . . with combined frame.**
The soft-coated frame at the sides is particularly sympathetic to the touch.

- **Example J**
  - Operating housing, 155 mm deep
  - Keyboard housing, 44 mm deep
  - With enclosure bar connector
  - With corner handles
  - Cable tube, flexible
  - Support arm connection at the bottom

- **Example K**
  - Operating housing, 155 mm deep
  - Keyboard housing, 44 mm deep
  - Enclosure bar connector
  - Support arm connection at the bottom

- **Example L**
  - Operating housing, 185 mm deep, hinged
  - Keyboard housing, 44 mm deep
  - Enclosure bar connector
  - Cable tube, flexible
  - Support arm connection, top

- **Example M**
  - Operating housing, 155 mm deep
  - Keyboard housing, 44 mm deep
  - Enclosure bar connector
  - Cable tube, flexible
  - Support arm connection, top

- **Example N**
  - Operating housing, 155 mm deep
  - Keyboard housing, top, with hinged frame connector
  - Keyboard housing, bottom, with enclosure bar connector
  - Cable tube, flexible
  - Support arm connection, top

- **Example O**
  - Operating housing, 155 mm deep
  - Keyboard housing, top, with hinged frame connector
  - Keyboard housing, bottom, with enclosure bar connector
  - Cable tube, flexible
  - Support arm connection, top

- **Example P**
  - Operating housing, 155 mm deep
  - Corner handles
  - Support arm connection, top
Selection: Operating housing/keyboard housing

We need the following information in order to deal with your enquiry/order:
- Model No. front frame: CP 6392.X09
- The dimensions and number of panels/front panels to be installed in the operating/keyboard housing
- Design code number for the operating/keyboard housing

Protection category:
IP 65 (if the opening in the enclosure is covered or sealed in accordance with the protection category).

Order form, available on the Internet.

1. Front frame
Select the frame to match your requirements. It is automatically used for a keyboard housing as well.

**Model No. CP**
- Command Panel: 6 3 9 2 0 9
- Keyboard housing: 6 3 5 1 0 9

Wide frame
- Extruded aluminium section
- Die-cast zinc corner pieces
- Colour: RAL 7035
- Finely-textured

Combined frame
- Extruded aluminium section
- Soft-coated frame similar to RAL 7024 (sides), vertical
- Die-cast zinc corner pieces
- Note: For visual reasons, only enclosures without fins or with fins at the sides should be mounted here.

Narrow frame
- Extruded aluminium section
- Die-cast zinc corner pieces
- Note: For visual reasons, only enclosures without fins should be mounted here.

Other RAL colours available on request.

2. Panel dimensions

2.1 For operating housings CP 6392.X09 and
2.2 For keyboard housings CP 6351.X09
On the order form, please state the width (B) x height (H) x depth (T) of the control components and the manufacturer/model, with due regard for the installation criteria (see below).

Checking the installation criteria
Subject to compliance with criteria 1 – 4, front panels/panels may be mounted directly with the appropriate mounting kits, see page 1121.
Otherwise, an adaptor panel is needed – see 3.2, design code number 6, page 218.
The dimensions of the operating panel and keyboard housing are derived from the dimensions of your panel and the number of cross members.

1. 7 to 13 mm edge spacing of the mounting holes or bolts.
2. Front panel projection on sides with mounting holes or bolts at least 17 mm, on sides without attachments at least 6 mm.

3. Front panel thickness
- Varies according to the type of trim section, see page 219, version 3.4.

4. Installation depths:
- Command Panels = 155 mm, 185 mm, 295 mm, 328 mm, 438 mm.
- Command Panels with 45 mm deep rear panel1) = 200 mm, 230 mm, 340 mm, 373 mm, 483 mm.
- Command Panels with 245 mm deep rear panel1) = 400 mm, 430 mm, 540 mm, 573 mm, 683 mm.

For versions with a hinged rear panel, the maximum installation depth is reduced by 27 mm in the vicinity of the lock.

1) Other depths available on request.

*Note:* Load information for installed equipment, see page 1214.
3.1 Installation depth

Material:
Enclosure: Extruded aluminium section
Corner protectors: Plastic, self-extinguishing

Surface finish:
Enclosure: Natural-anodised

Note:
Support arm connection see 3.6.
Drawing view from above. R/h hinge is also possible.

Detailed drawing, see page 1208/1209.

Installation depth
155 mm
Screw-fastened

Installation depth
185 mm
Screw-fastened

Installation depth
295 mm
Screw-fastened

Support arm system
CP-L
Prepared

Support arm system
CP-XL/CP-Q
Prepared
with adaptor CP 6528.0X0

X = 0 (RAL 7030)
X = 1 (RAL 7024)

Installation depth
328 mm
Screw-fastened

Installation depth
438 mm
Screw-fastened

Support arm system
CP-L
with adaptor CP 6528.0X0

Support arm system
CP-XL/CP-Q
with adaptor CP 6528.0X0

1) Cam lock with double-bit lock insert may be exchanged for 41 mm lock inserts, type C, see page 956.

2) Provided the admissible load capacity of the support arm system is adequate, see page 237.
3.2 Front design

Cross member
For horizontal and/or vertical division. With channel on both sides for mounting kits, see page 1121.

Material:
Extruded aluminium section, RAL 7035

Sealing bar
For horizontal and/or vertical division. The “slot-free” division produces a height gain of 28 mm.

Material:
Extruded aluminium section 8 x 20 mm, natural-anodised

Adaptor plate
Material thickness:
3 mm aluminium, natural-anodised.

Please specify the dimensions for the front panel and the desired holes and cut-outs.

Spacer and built-in trim panel
For additional space for cable entry and for the installation of switches/indicator lights, emergency off/key switches, CD-ROM drives, interfaces etc. With channel on one side for mounting kits, see page 1121.

Material:
Extruded aluminium section, natural-anodised.

Detailed drawing,
see page 1123.

Also required:
Mounting kit for installing front panels, operating panels and keyboards in operating and keyboard housings, see page 1121.

1) Not possible with spacer trim (see 3.4).
2) Unless otherwise specified: Sealing bar at the top, cross member at the bottom.
3) Only for use in conjunction with end trim.
4) Screw-fastened from the inside, with cam or l/h hinge on request.
3.3 Cooling fins

Fin design is chosen according to the heat loss to be dissipated. Guidelines for dissipatable heat loss, see page 227.

3.4 Trim types

Cover trim
To cover the front panel fastening screws. For front panel thickness up to 3.5 mm.

End trim
Attractively finishes off the space between the front panel and the frame section. For all front panel thicknesses. Only this trim may be selected when installing drawers.

Spacer trim
For installed equipment flush with the frame section. For front panel thickness approx. 3.5 mm.

3.5 Trim colours

Turquoise (similar to RAL 5018)

Bright blue (similar to RAL 5005)

Bright red (similar to RAL 3001)

Pebble grey (similar to RAL 7030)

Graphite grey (similar to RAL 7024)

Note:
Enclosure corner protectors are supplied in the chosen colour. Other colours available on request with larger orders.
### 3.6 Support arm/wall and pedestal connection

Users may choose from 4 different support arm systems, see page 237, and a variety of stand systems, see page 286.

**Note:** Support arm connection CP-S for small enclosures with an installation depth of 155 mm is selected by adding an “S” after the design code number.

**Detailed drawing,** see page 1205.

#### Without connection

<table>
<thead>
<tr>
<th>3.1</th>
<th>3.2</th>
<th>3.3</th>
<th>3.4</th>
<th>3.5</th>
<th>3.6</th>
<th>3.7</th>
<th>3.8</th>
<th>3.9</th>
</tr>
</thead>
</table>

#### Connection top

<table>
<thead>
<tr>
<th>3.1</th>
<th>3.2</th>
<th>3.3</th>
<th>3.4</th>
<th>3.5</th>
<th>3.6</th>
<th>3.7</th>
<th>3.8</th>
<th>3.9</th>
</tr>
</thead>
</table>

#### Connection top and bottom

<table>
<thead>
<tr>
<th>3.1</th>
<th>3.2</th>
<th>3.3</th>
<th>3.4</th>
<th>3.5</th>
<th>3.6</th>
<th>3.7</th>
<th>3.8</th>
<th>3.9</th>
</tr>
</thead>
</table>

#### Wall connection rigid, see page 1119

1 Support arm connection for the narrow variant of connection plate 6528.420, see page 274, housing coupling for desktop mounting 6528.400, see page 273, by additionally specifying the code number: A for the wide variant of connection plate 6528.430, see page 274, housing coupling for desktop mounting 6528.410, see page 273, by additionally specifying the code number: B

### 3.7 Preparations for mounting keyboard housings

**Detailed drawing,** see page 1211.

#### Without connection to keyboard housing

<table>
<thead>
<tr>
<th>3.1</th>
<th>3.2</th>
<th>3.3</th>
<th>3.4</th>
<th>3.5</th>
<th>3.6</th>
<th>3.7</th>
<th>3.8</th>
<th>3.9</th>
</tr>
</thead>
</table>

#### Connection to frame connector either rigid or adjustable

<table>
<thead>
<tr>
<th>3.1</th>
<th>3.2</th>
<th>3.3</th>
<th>3.4</th>
<th>3.5</th>
<th>3.6</th>
<th>3.7</th>
<th>3.8</th>
<th>3.9</th>
</tr>
</thead>
</table>

#### Connection with enclosure duct connector

<table>
<thead>
<tr>
<th>3.1</th>
<th>3.2</th>
<th>3.3</th>
<th>3.4</th>
<th>3.5</th>
<th>3.6</th>
<th>3.7</th>
<th>3.8</th>
<th>3.9</th>
</tr>
</thead>
</table>

#### Connection with hinged frame connector

<table>
<thead>
<tr>
<th>3.1</th>
<th>3.2</th>
<th>3.3</th>
<th>3.4</th>
<th>3.5</th>
<th>3.6</th>
<th>3.7</th>
<th>3.8</th>
<th>3.9</th>
</tr>
</thead>
</table>

To fit keyboard housing depth:

| Connection of operating housing to keyboard housing: (Selection 4.4, page 225) | – |
| Cable tube: (Selection 4.5, page 226) | – |

To fit keyboard housing depth:

| Connection of operating housing to keyboard housing: (Selection 4.4, page 225) | – |
| Cable tube: (Selection 4.5, page 226) | – |

To fit keyboard housing depth:

| Connection of operating housing to keyboard housing: (Selection 4.4, page 225) | – |
| Cable tube: (Selection 4.5, page 226) | – |

To fit keyboard housing depth:

| Connection of operating housing to keyboard housing: (Selection 4.4, page 225) | – |
| Cable tube: (Selection 4.5, page 226) | – |
### 3.8 Rear panels

1) On the longest side (right/bottom), cam with double-bit insert, may be exchanged for lock inserts 41 mm, type C, see page 956, plastic handles and T handles, type C, see page 954/955.

<table>
<thead>
<tr>
<th>3.8 Rear panels</th>
<th>3.8.1 Screw-fastened with built-in VIP SK small cooling unit, condenser assembly at the top left</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Recommended for operating housing design (see 3.1 from an installation depth of 185 mm)</td>
</tr>
<tr>
<td></td>
<td>Material: Aluminium, natural-anodised</td>
</tr>
<tr>
<td></td>
<td>Detailed drawing, see page 641.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3.8.2 Screw-fastened</th>
<th>Material: Aluminium, natural-anodised</th>
</tr>
</thead>
<tbody>
<tr>
<td>for rapid service access</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3.8.3 Hinged1) Depth plus 45 mm, hinged, screw-fastening</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material: Sheet steel, RAL 7035</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3.8.4 Depth plus 245 mm, square2), screw-fastened</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material: Sheet steel, RAL 7035</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3.8.5 Hinged1) for heavy installed equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material: Aluminium, natural-anodised</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3.8.6 Screw-fastened with built-in VIP SK small cooling unit, condenser assembly at the top right</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended for operating housing design (see 3.1 from an installation depth of 185 mm)</td>
</tr>
<tr>
<td>Material: Aluminium, natural-anodised</td>
</tr>
<tr>
<td>Detailed drawing, see page 641.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3.8.7 Screw-fastened with built-in VIP SK small cooling unit, condenser assembly at the top right</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended for operating housing design (see 3.1 from an installation depth of 185 mm)</td>
</tr>
<tr>
<td>Material: Aluminium, natural-anodised</td>
</tr>
<tr>
<td>Detailed drawing, see page 641.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3.8.8 Rear cooling panel, modular3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increases the dissipation of heat loss from the enclosure by approx. 10%.</td>
</tr>
<tr>
<td>Material: Extruded aluminium section, natural-anodised</td>
</tr>
<tr>
<td>Detailed drawing and arrangement of sections, see page 1206.</td>
</tr>
</tbody>
</table>

3) When installing the pull-out keyboard CP 6002.1X0 (see page 1137) in the VIP 6000, design variant 3.1, no. 1 the cooling fins and screw channels protruding 11 mm into the enclosure may be milled off in this area. Please state the installation position when ordering.
### 3.9 Integration of accessories

In addition to the design code, you should also indicate the position or enclose a sketch.

1) Interface inserts may be found on page 1151, these may also be fitted by specifying the Model No. and position.

#### Without accessories

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Interface flap, single, with plastic flap(^1) from installation depth 155 mm</td>
</tr>
</tbody>
</table>

#### Interface flap, double, with plastic flap\(^1\)

1. only possible in the front panel, spacer and built-in trim panel or rear panel.

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Interface flap, double, with plastic flap(^1) from installation depth 155 mm</td>
</tr>
</tbody>
</table>

#### Interface flap, single, with metal flap\(^1\)

1. only possible in the front panel, spacer and built-in trim panel or rear panel.

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Interface flap, single, with metal flap(^1) from installation depth 155 mm</td>
</tr>
</tbody>
</table>

#### USB/RJ 45 extension

For order information, refer to page 1150.

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>USB/RJ 45 extension</td>
</tr>
</tbody>
</table>

#### Mounting preparations for signal pillars

Mounting component, see page 1129. Signal pillars, modular, see page 1126.

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Mounting preparations for signal pillars</td>
</tr>
</tbody>
</table>

---

1. Interface inserts may be found on page 1151, these may also be fitted by specifying the Model No. and position.
4.1 Keyboard housing

Without fins.

For the internal or surface mounting of keyboards.

All keyboard housings are custom-produced to your dimensions. When selecting the wide front frame, the width of the keyboard housing depends on the operating housing.

Material:
Extruded aluminium section

Detailed drawing, see page 1211 – 1213.

Example of the versatility of the keyboard housing:
Mounting on doors

With all keyboard housings, the rear panel may be supplied prepared for external mounting on flat surfaces on request.

Also required:

Enclosure duct connector CP 6006.000, see page 1119. For mounting and cable entry.

1) Only in conjunction with hinged frame connector, see 4.4 design code number 5.
### 4.2 Trim types<sup>1)</sup>

**Cover trim**
To cover the front panel assembly screws. For front panel thickness up to 3.5 mm.

**End trim**
Attractively finishes off the space between the front panel and the frame section. For all front panel thicknesses.

**Spacer trim**
For installed equipment flush with the frame section. For front panel thickness approx. 3.5 mm.

<sup>1)</sup> Selection not possible with support for keyboards. In such cases, please enter an X.

<table>
<thead>
<tr>
<th>Trim type</th>
<th>Description</th>
<th>Illustration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cover trim</td>
<td>To cover front panel assembly screws.</td>
<td><img src="image1" alt="Cover trim" /></td>
</tr>
<tr>
<td>End trim</td>
<td>Attractively finishes the space between the front panel and the frame section.</td>
<td><img src="image2" alt="End trim" /></td>
</tr>
<tr>
<td>Spacer trim</td>
<td>For installed equipment flush with the frame section.</td>
<td><img src="image3" alt="Spacer trim" /></td>
</tr>
</tbody>
</table>

### 4.3 Trim colours<sup>1)</sup>

**Note:**
Enclosure corner protectors are supplied in the chosen colour. Other colours available on request with larger orders.

<sup>1)</sup> Selection not possible with support for keyboards. In such cases, please enter an X.

<table>
<thead>
<tr>
<th>Trim colour</th>
<th>Description</th>
<th>Illustration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turquoise</td>
<td>Similar to RAL 5018</td>
<td><img src="image4" alt="Turquoise" /></td>
</tr>
<tr>
<td>Bright blue</td>
<td>Similar to RAL 5005</td>
<td><img src="image5" alt="Bright blue" /></td>
</tr>
<tr>
<td>Bright red</td>
<td>Similar to RAL 3001</td>
<td><img src="image6" alt="Bright red" /></td>
</tr>
<tr>
<td>Pebble grey</td>
<td>Similar to RAL 7030</td>
<td><img src="image7" alt="Pebble grey" /></td>
</tr>
<tr>
<td>Graphite grey</td>
<td>Similar to RAL 7024</td>
<td><img src="image8" alt="Graphite grey" /></td>
</tr>
</tbody>
</table>
### 4.4 Keyboard housing connector

Supplied loose with the keyboard housing for connecting operating housings and keyboard housings.

<table>
<thead>
<tr>
<th>Frame connector (rigid)</th>
<th>Frame connector (adjustable)</th>
<th>Enclosure duct connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**To fit keyboard housing depth:**

- **Tilt angle:**
  - 105
  - 44
  - Support for keyboards
  - 120°, rigid
  - See 4.5

**Material:**

- Die-cast zinc, RAL 7035

**To fit operating and keyboard housings with the same width.**

**Material:**

- Die-cast zinc, RAL 7035

**To fit operating housings with keyboard housings 105 mm deep, also available in different widths.**

**Material:**

- Aluminium, RAL 7035

---

<table>
<thead>
<tr>
<th>Enclosure bar connector</th>
<th>Hinged frame connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**To fit keyboard housing depth:**

- **Tilt angle:**
  - 105
  - 44
  - Support for keyboards
  - 120°, rigid
  - See 4.5

**Cable tube:**

- See 4.5

**To fit operating housings with keyboard housings 44 mm deep, also available in different widths.**

**Material:**

- Sheet steel, RAL 7035

**To fit operating housings with keyboard housings 105, 44 mm deep and support for keyboards, also available in different widths.**

**Material:**

- Aluminium, RAL 7035
Command Panel VIP 6000

Selection: Keyboard housing

4.5 Cable tube

Without cable tube

Cable tube, rigid

Cable tube, flexible

Suitable for cable routing when using the rigid frame connector (for wide frames) and keyboard housings with a depth of 105 mm.

Material:
Aluminium, RAL 7035

Note:
Not possible with:
3.1 Operating housing, design code numbers 3 and 7.
4.4 Keyboard housing connector, design code 2.

Suitable for cable entry when using the frame connector, adjustable, hinged frame connector or enclosure bar connector. For mounting on keyboard housings with an installation depth of 105 mm, 44 mm or support for keyboards.

Material:
Plastic, RAL 7035

Note:
Not possible with:
4.1 Keyboard housing, design code numbers 3 and 5.

Example
The picture opposite shows the solution we have chosen, together with its corresponding design code number. The following key explains how the code number in our example is made up.

We need the following information in order to deal with your enquiry/order:

- Model No. front frame: CP 6392.X091)
- The dimensions and number of panels/front panels to be installed in the operating/keyboard housing
- Design code number for the operating/keyboard housing

Order form, available on the Internet.

Operating housing
Model No.: CP 6392.009

Design code number:

3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9
1 1 1 1 2 2 2 1 1

3.1 Operating housing, installation depth 155 mm
3.2 With one cross member
3.3 No fins
3.4 Cover trim
3.5 Trim colour: Bright blue
3.6 Support arm connection CP-L, Ø 130 mm, bottom
3.7 Connection with frame connector, rigid
3.8 Rear panel, hinged with double bit lock
3.9 Fitted interface flap

Keyboard housing
Model No.: CP 6351.009

Design code number:

4.1 4.2 4.3 4.4 4.5
1 1 2 1 1

4.1 Keyboard housing, installation depth 105 mm
4.2 Cover trim
4.3 Trim colour: Bright blue
4.4 Frame connector, rigid
4.5 Cable tube, rigid

1) Replace X with the number after selecting the front frame.

Note:
If the design code number does not cover your requirements, please enter an X and enclose a written explanation.
Operating housings

Configurators and guides to dissipatable heat loss

Comfort Panel and Optipanel Configurator
Individual, perfectly coordinated panel solutions can be configured using these online tools. The configurator guides you automatically through the catalogue of questions in the individual selection masks. There is also an integrated intelligent consistency check that ensures that your selected configuration is complete, feasible and error-free.

When you have completed your configuration you can display a visual presentation and 3D CAD model of your separate command panel solutions in the format of your choice, which can be imported into your machines and plant design. You can also call up an online quote from Rittal.

Benefits at a glance:
● Design your panel solution at a click of the mouse
● Check the installation of pre-defined command panels
● Integrated consistency checks to exclude configuration errors
● The possibility of using a standard size is automatically checked
● Detailed description of the specified panel

Sent to you:
– A visual presentation of the enclosure
– 3D CAD data for interlinking the machines and plant design to display a virtual prototype on the screen
– A quote for the selected command panel solution.

Further information can be found at: www.rittal.com/configurator

Guides to the dissipatable heat loss with aluminium operating housings
for front panel dimensions W = 482.6 mm (19”) x H = 310.3 mm (7 U)

<table>
<thead>
<tr>
<th>Operating housings</th>
<th>Model No. CP</th>
<th>Installation depth mm</th>
<th>Enclosure1) without fins</th>
<th>Enclosure1) with partial fins</th>
<th>Enclosure1) with fins all round</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comfort Panel</td>
<td>6372.009</td>
<td>152</td>
<td>100 W</td>
<td>115 W</td>
<td>–</td>
<td>197</td>
</tr>
<tr>
<td>Optipanel</td>
<td>6382.009</td>
<td>150</td>
<td>80 W</td>
<td>–</td>
<td>–</td>
<td>206</td>
</tr>
<tr>
<td>VIP 6000</td>
<td>6392.X09</td>
<td>155</td>
<td>105 W</td>
<td>120 W</td>
<td>135 W</td>
<td>216</td>
</tr>
</tbody>
</table>

1) With additional use of the rear cooling panel, the dissipatable heat loss is increased by around 10 %.

Tests were carried out under the following conditions:
● Single enclosure, free-standing (location)
● Difference between internal and external temperature Δt = 20 K

Note:
Other dimensions may be checked using the Rittal Therm software (see page 1155).

Other climate control options

Fan-and-filter unit, see page 690.
Air/water heat exchangers, see page 676.
Small cooling unit, see page 641.
DCP Panel Cooling, (on request) see page 735.