

The Secret to Beautiful Doors

LAMP®

Concealed Hinge
The HES Series



No.420A



Experience the Unseen

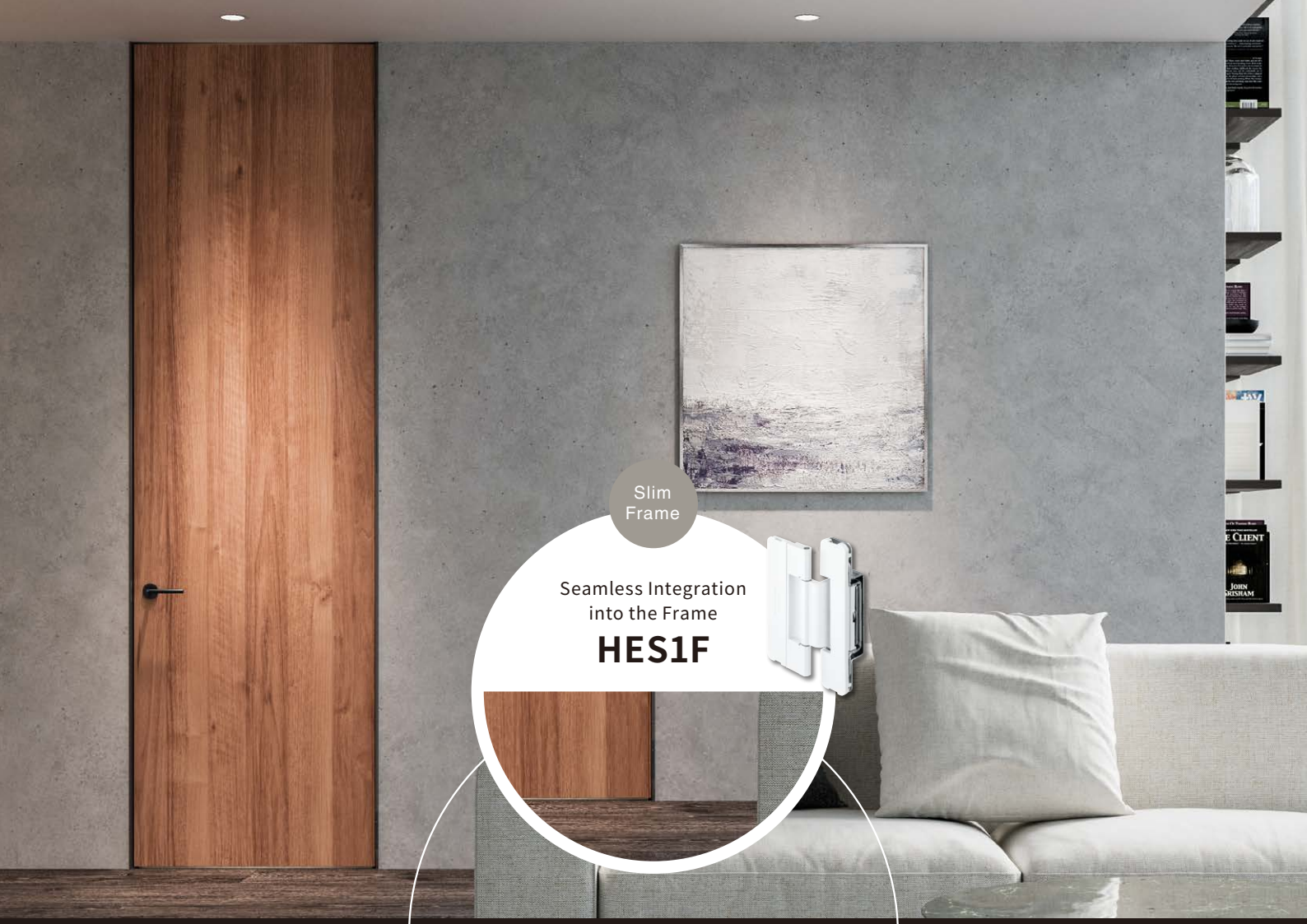
When designing a door,
it's normal to focus on obvious visual aspects.

Hinges are often a secondary matter.

With this in mind,
we realise the value of hinges
that won't interfere with the door design.

The HES was designed to reflect this concept
to achieve great door design and functionality.

HES
Hinge + Esprit®



Slim
Frame

Seamless Integration
into the Frame

HES1F



Frameless / Framed
Doors Supported

HES3D



Without
Frame

With
Frame

Easy
Surface Mounting

HES2S





Enhance the Interior Space You Design

The HES series offers superb hinges that are virtually invisible from the outside.

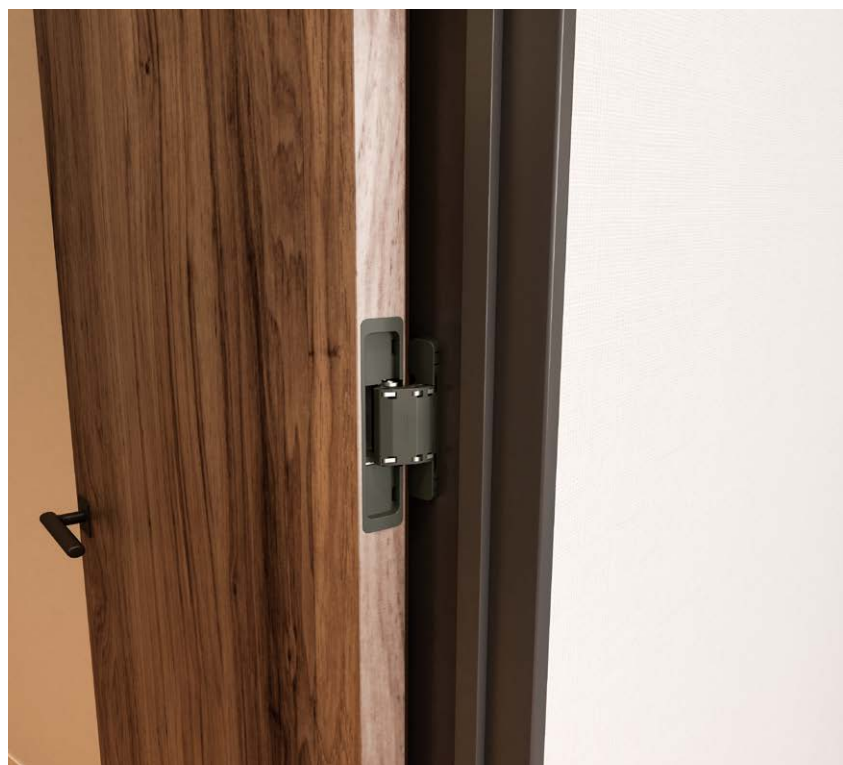
It discreetly enhances the beauty of doors without obstructing original designs.

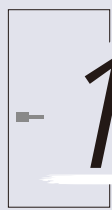
Various interior styles look better with the HES hinges.

For example, the HES1F seamlessly integrates into door frames
and it enhances the overall aesthetic of interior spaces.

[Video Link](#)







Flawless Architectural Integration

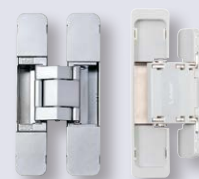


The HES1F integrates into slim frames for flush-to-wall doors.



The new HES1F is the best hinge for minimalist interior design.

It blends into slim frames of only 8 mm and will be virtually invisible.

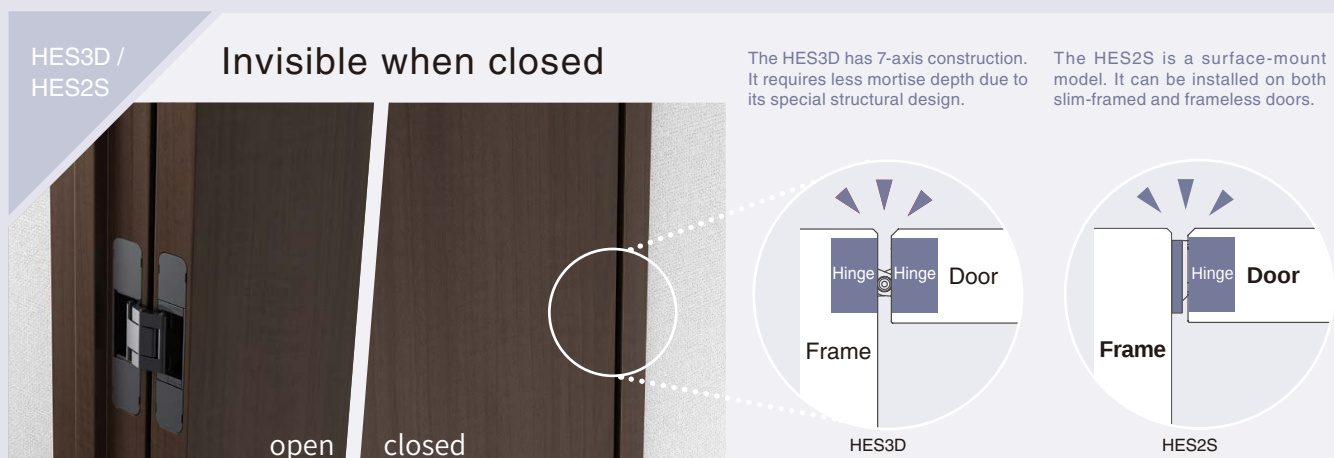


The HES3D and HES2S are completely hidden when closed.



The shafts of the hinges are concealed inside the frame and do not protrude from the door.

They do not interfere with the original door design and help create seamless interiors.



2 Increased Safety

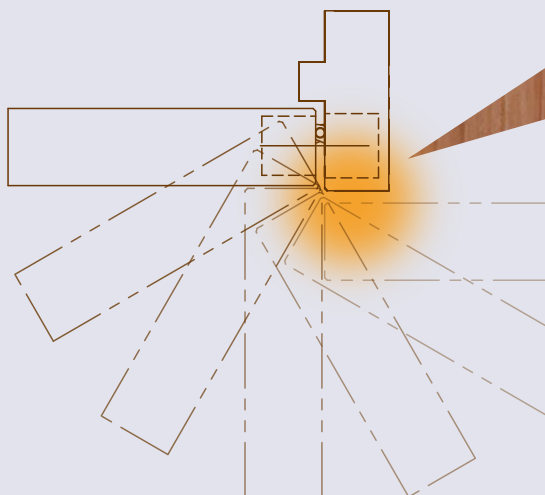
The HES series minimises the hinge-side door gap and increases safety.

KIDS DESIGN AWARD 2021

HES3D-70/90/120/
H120-36/120-A100

KIDS DESIGN AWARD 2022

HES1F-140



Conventional hinge
Risk of Injuries



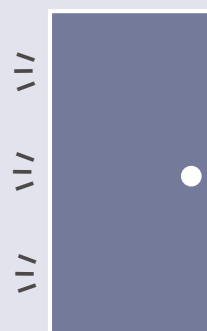
A large gap is made on the hinge side when the door is moved. This causes a risk of finger injury.



HES hinge
Prevent Finger Pinch

Safe for kids
The gap is under 5mm.

Sleek Design
Hidden from outside



The HES series has minimum gap on the hinge side and is under 5mm at any angle. It reduces the risk of finger pinching.

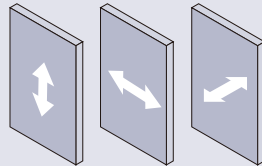
* In the case of the HES2S, the space will be over 5mm.
Note that there may be a possibility that the space could be over 5mm depending on door specs.



3 Easy Installation

3D Door Adjustment

The door position can be adjusted in three directions even post installation.



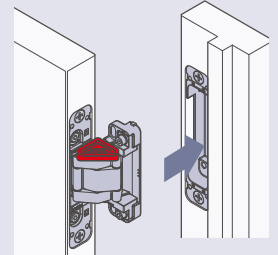
Also, the hinge can be separated into two parts: the door and frame sides. This makes installation much easier.

* HES1F / HES3D

No Help Needed

* HES1F / HES3D

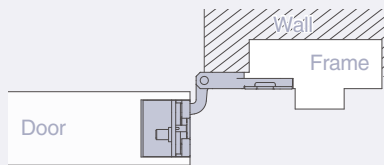
The HES can be split into two parts (door/frame sides) and the door can be temporarily hung on the frame before fixing the screws.



An optional jig is available for the HES3D-120 / HES3D-H120-36. It keeps the angle at 90° during installation.

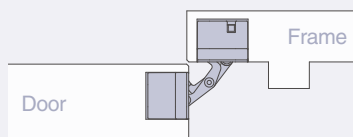
Installation Difference

HES1F



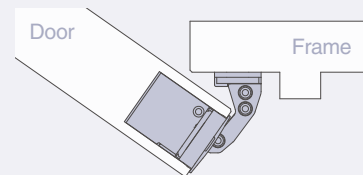
The HES1F is designed for slim frames. It seamlessly fits into frames of 8 mm.

HES3D



The HES3D does not need processing on the wall if the frame thickness is around 25 mm. The 7-axis construction requires less mortise depth.

HES2S



The HES2S is a surface-mount model. There is no need to mortise the frame.

4 Trusted Durability

The HES series has a great reputation for its high durability. It has been a preferred choice in the Japanese market for over 30 years. Endurance tests are performed in order to ensure durability. The HES series passed 300,000* private open/close cycle tests.

*Models for cabinet doors passed 50,000 cycles.



5 Option Items

The HES series has various combination options.

For example, the LDD-V can be used to create a soft-closing function on doors. It embeds into doors and is completely hidden when closed.



Door Damper LDD-V

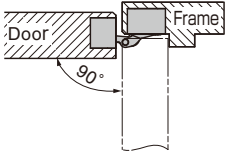
LINEUP



Selection tool

May support conditions
other than those specified
in this catalogue.



Load capacity		40 kgf		50 kgf		55 kgf	
		30 kgf		40 kgf			
Product		 HES3D-120 For light-weight doors.  ▶ P.20	 HES3D-120-A100 Opens 100°. Can be used with door restrictors.  ▶ P.21	 HES2S-150-A110 Surface mount for door frame enables easy installation. ▶ P.34	 HES1F-140 Integrates in 8mm frame   ▶ P.15	 HES3D-V135LGR Unique motion by multi-axis.  ▶ P.23	
Door Size (mm)	Width	≤ 900					
	Height	≤ 2400		≤ 2700		≤ 2400	
	Thickness	≥ 29		≥ 35	≥ 36	≥ 30	



65 kgf		70 kgf	100 kgf	125 kgf	
50 kgf		55 kgf	80 kgf	100 kgf	
 HES3D-H120-36 The position of door cutouts will be at the centre. (36mm thick) KIDS DESIGN AWARD 2021 ▶ P.22	 HES2S-140-A125 No cutout on the frame side (surface mount). Opens 125°. ▶ P.33	 HES3D-E160 For mid-weight doors ▶ P.24	 HGS3D-S160SH Made of stainless steel. Great corrosion resistance. ▶ P.25	 HES3D-E190 Meets fire resistance standards. UL Rated, up to 3 Hours. ▶ P.26	 HES3D-W190 Has a long arm for a wider throw. For clad and thick doors. UL Rated, up to 3 Hours (DC, DN, and BL models only) ▶ P.29
					≤ 915
≤ 2700		≤ 2400			≤ 2440
≥ 34	≥ 38	≥ 36		≥ 38	≥ 42

Concealed Hinges





Create minimal design

LAMP® NEW
SLIM FRAME HINGE
HES1F-140

Load Capacity

40kgf/2 pcs 50kgf/3 pcs

3D Adjustability

Vertical: $\pm 4\text{mm}$
Horizontal: $\pm 2\text{mm}$
Depth: $\pm 1\text{mm}$

Safe for Kids

Has a minimal gap on hinge side.
This reduces the risk of finger pinching



White



Black



open



closed

HES1F-140



with slim-framed doors.

《 Seamless Integration into Frames 》

《 Virtually Invisible Design 》

《 Flush-to-Wall Doors 》



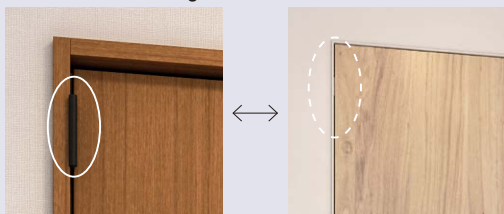
GOOD DESIGN AWARD 2022

BEST 100

KIDS DESIGN AWARD 2022

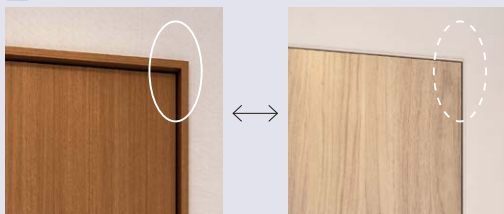


Seamless integration into slim frames



The hinge will be virtually invisible from view.

Flush with the wall



Optional parts are required. (base spacer / strike plate)



Standard hinge



HES1F hinge

LAMP SLIM FRAME HINGE HES1F-140 NEW

Latest
Info

Passed Private 300K Cycle Test



Black



White

Without Covers



GOOD DESIGN AWARD 2022

BEST 100

KIDS DESIGN AWARD 2022

- Seamlessly integrates into the slim frame for a clean and modern look. The shaft part thickness is only 8 mm.
- Door is flush with wall when closed.
- 3D Adjustment Post Installation: Adjust vertically, horizontally, and depth.
- For simplified door hanging, the hinge divides into two parts: one for the door-side and one for the jamb-side.
- Can temporarily be hung before fixing with screws.
- KIDS DESIGN AWARD 2022 Encouragement Award: KDA Chairman's Award

INSTRUCTION

SCREW

Parts Included

- For Door: Cross-recessed pan head tapping screw 4×16 (4 pcs/hinge)
- For Frame: Cross-recessed countersunk tapping screw 4×20 (5 pcs/hinge)
- Hex key 3
- Cutout template

Optional Parts

- Base spacer
- Adjustment strike plate

Remarks

- When using a lever handle, the optional base spacer and adjustment strike plate are required.

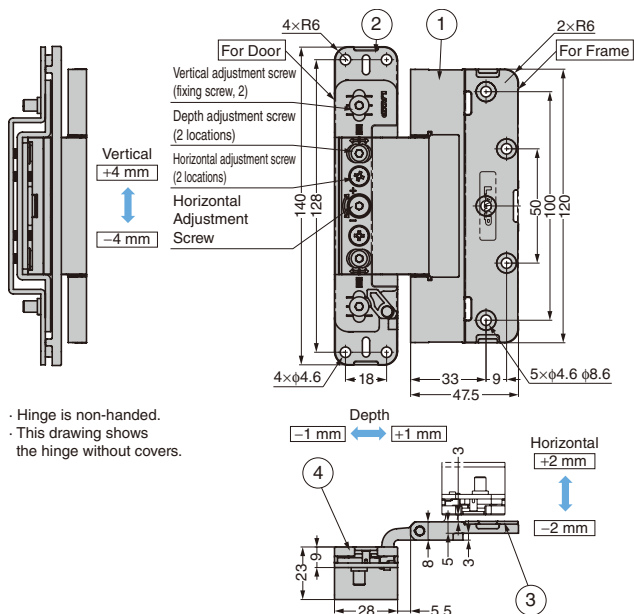
Installation Example



Open

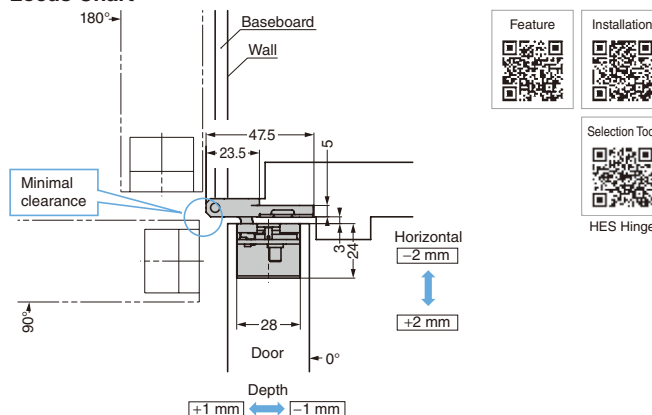


Closed



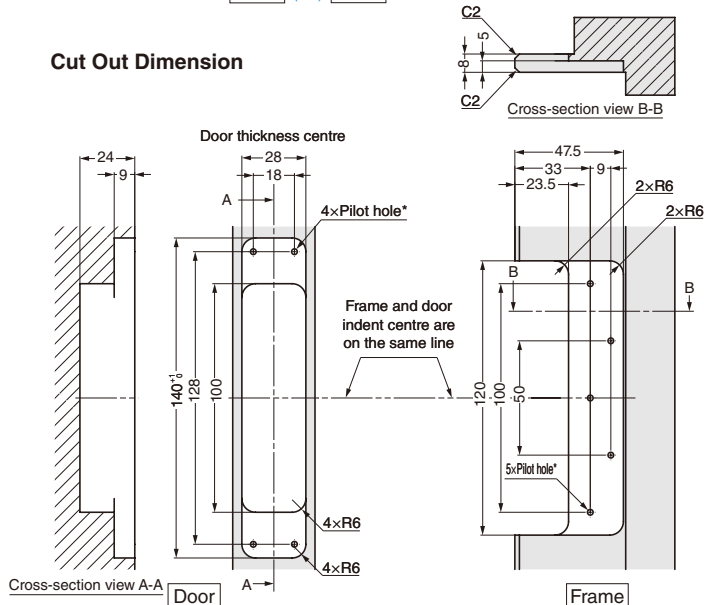
- Hinge is non-handed.
- This drawing shows the hinge without covers.

Locus Chart



HES Hinge

Cut Out Dimension



*Diameter and depth of the pilot hole depends on the strength of the wood.

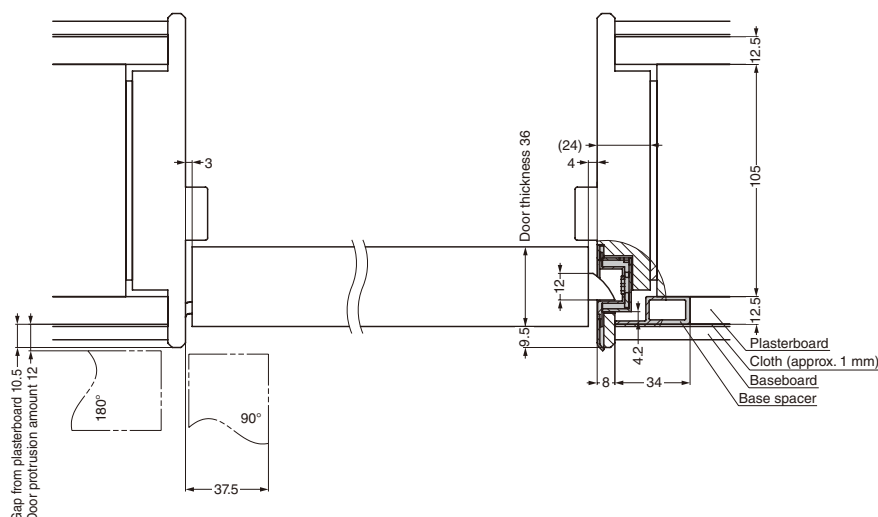
No.	Part Name	Material	Finish/Colour	
			BL	WT
①	Body	Zinc Alloy (ZDC)	baked finish/Black	baked finish/White
②	Base Plate	Steel (SPCC)	Chrome	
③	Frame Side Cover	ABS	Black	White
④	Door Side Cover			

Hinge

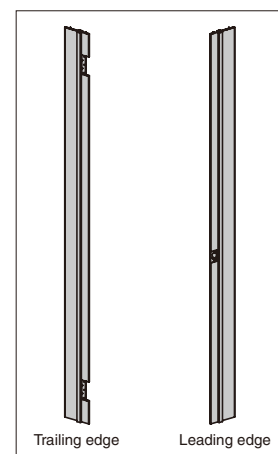
R&HS	CAD	Item Code	Item Name	Colour	Door Size			Load Capacity				Opening Angle
					Width	Height	Thickness	N/2pcs	kgf/2pcs	N/3pcs	kgf/3pcs	
●	●	170-053-352	HES1F-140-BL	Black	Max. 900	Max. 2700	Min. 36	392	40	490	50	180°
●	●	170-053-353	HES1F-140-WT	White								

Standard Installation

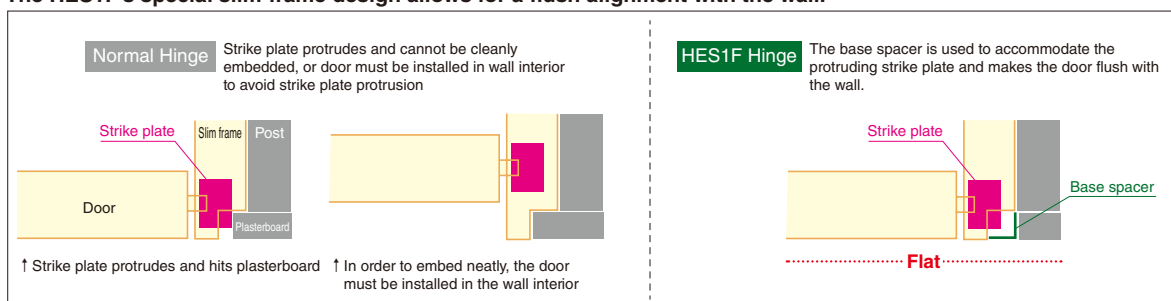
*Shows 8 mm width frame.



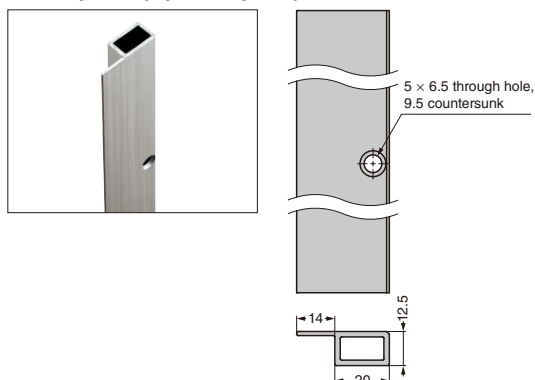
Aluminium frame (8 mm) is also under development.



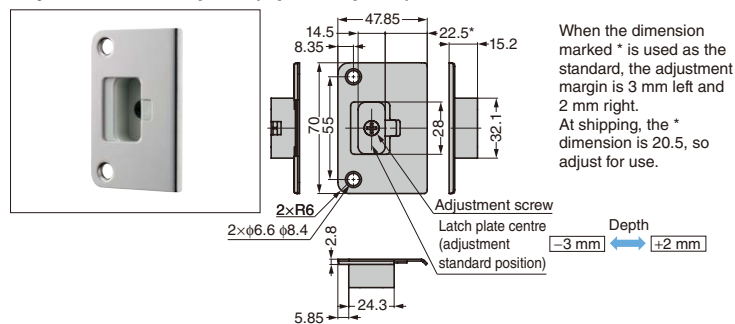
The HES1F's special slim-frame design allows for a flush alignment with the wall.



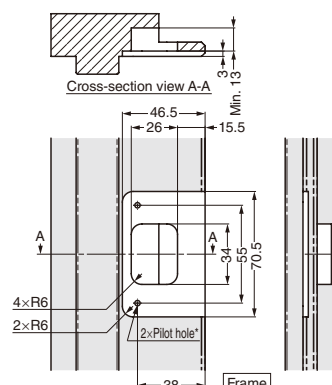
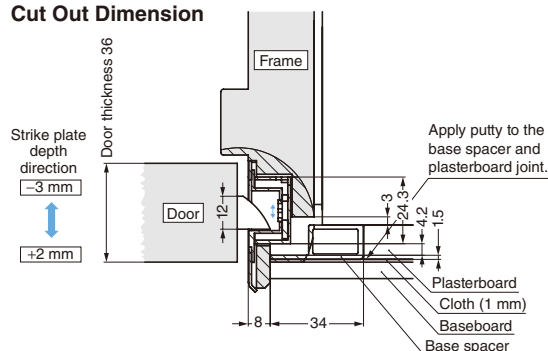
Base Spacer (Optional parts)



Adjustment Strike plate (Optional parts)



Cut Out Dimension



*Diameter and depth of the pilot hole depends on the strength of the wood.

Base Spacer (Optional parts)

RoHS	CAD	Item Code	Item Name	Material	Finish	Length	Weight (g)
●	●	170-053-400	HES1F-SP-2530	Aluminium	Anodised	2530	917
●	●	170-053-401	HES1F-SP-2730	Alloy		2730	990

Adjustment Strike plate (Optional parts)

RoHS	CAD	Item Code	Item Name	Main material	Colour
●	●	170-053-354	HES1F-AST-SL	Stainless Steel (SUS304)	Silver

LAMP SLIM FRAME AND HINGE SET HES1F-B NEW

 Latest
Info


*Door is not included.



- A set of necessary parts to make slim-framed doors.
- Includes aluminium frames, a strike plate, and the HES1F-140 hinge (P.15).
- The hinges and plates are preassembled on to the frames.
- Supports various wall thicknesses. Base frames can be used as stand-alone unit.
- The hinge has a 3-way adjustment function. Doors are easy to install.
- Patent pending in several countries.

INSTRUCTION

SCREW

Specifications

- Compatible wall thickness
Base frame + adjustment frame: 114~145 mm
Wallpaper: 90 mm up
- Compatible plasterboard thickness: 12.5 mm

Selection Tool



HES Hinge

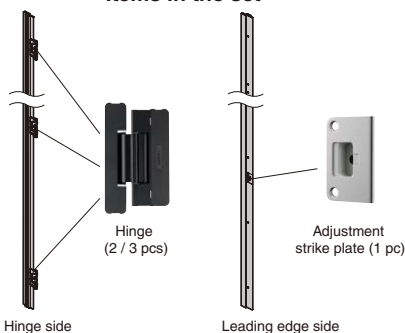
Parts Included

- Base frame: Hinge cover, cross-recessed pan head tapping screws 4x16, cross-recessed truss head tapping screws 4x40, screw caps for frame, hex key nominal 3, cutout template
- Adjustment frame: Screw caps for frame, cross-recessed truss head tapping screws 4x40

Optional Parts

- Base spacer (P.16) (Prevent interference between the plasterboard and the adjustment strike plate)

Base Frames Includes two frames (leading edge and hinge side). All parts are preassembled.

Items in the set

Colour Variation

Black

White



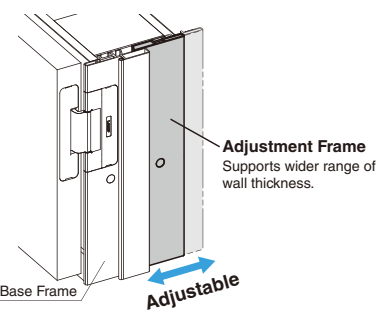
Base Frame


 Hinge
HES1F-140


Base Frame

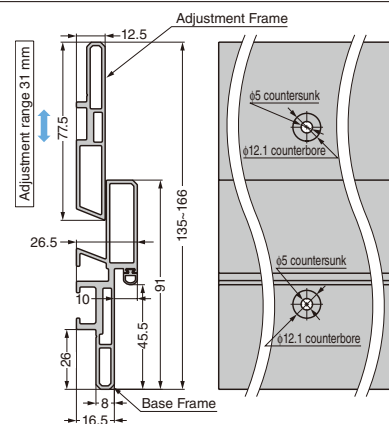

 Hinge
HES1F-140


Comes with a gasket.

Adjustment Frames Includes two frames components (leading edge and hinge side).

Colour Variation

Black

White


Base Frame

RoHS	CAD	Item Code	Item Name	Colour	Handed	Set Content	No. of Hinges	Door Thickness	Frame Height	Load Capacity N	Load Capacity kgf
●	●	170-054-170	HES1F-B2500L-BL	Black	Left	- Base frames (2 pcs) - Hinges - Adjustment strike plate (1 pc)	2 pcs	36~45	2500	392	40
●	●	170-054-171	HES1F-B2500R-BL		Right						
●	●	170-054-168	HES1F-B2500L-WT	White	Left		3 pcs		2700	490	50
●	●	170-054-169	HES1F-B2500R-WT		Right						
●	●	170-054-164	HES1F-B2700L-BL	Black	Left						
●	●	170-054-165	HES1F-B2700R-BL		Right						
●	●	170-054-162	HES1F-B2700L-WT	White	Left						
●	●	170-054-163	HES1F-B2700R-WT		Right						

Adjustment Frame

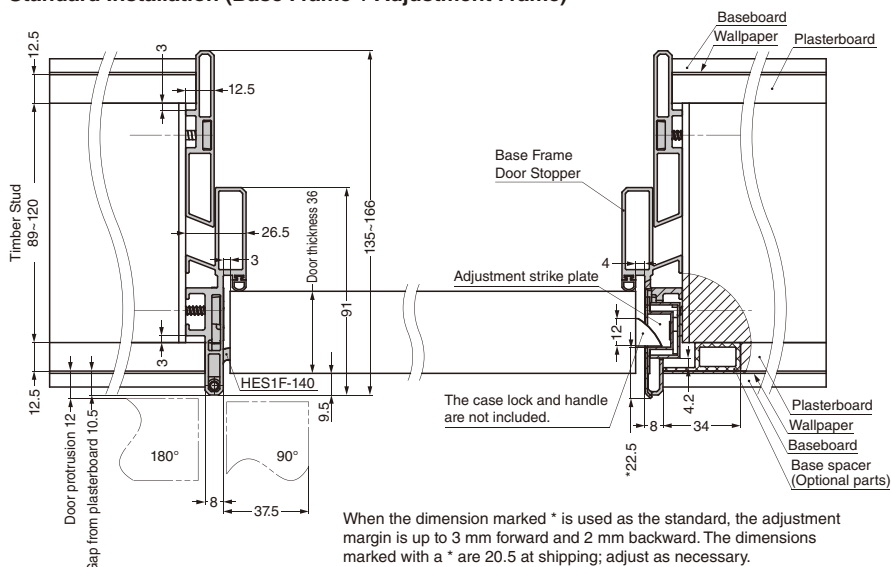
RoHS	CAD	Item Code	Item Name	Colour	Handed	Set Content	Door Thickness	Frame Height
●	●	170-054-173	HES1F-A2500-BL	Black	Non-handed	Adjustment frames (2 pcs)	36~45	2500
●	●	170-054-172	HES1F-A2500-WT	White				2700
●	●	170-054-167	HES1F-A2700-BL	Black				2700
●	●	170-054-166	HES1F-A2700-WT	White				2700

Base Spacer (Optional Parts (P.16))

RoHS	CAD	Item Code	Item Name	Material	Finish	Length	Weight (g)
●	●	170-053-400	HES1F-SP-2530	Aluminium Alloy	Anodised	2530	917
●	●	170-053-401	HES1F-SP-2730			2730	990

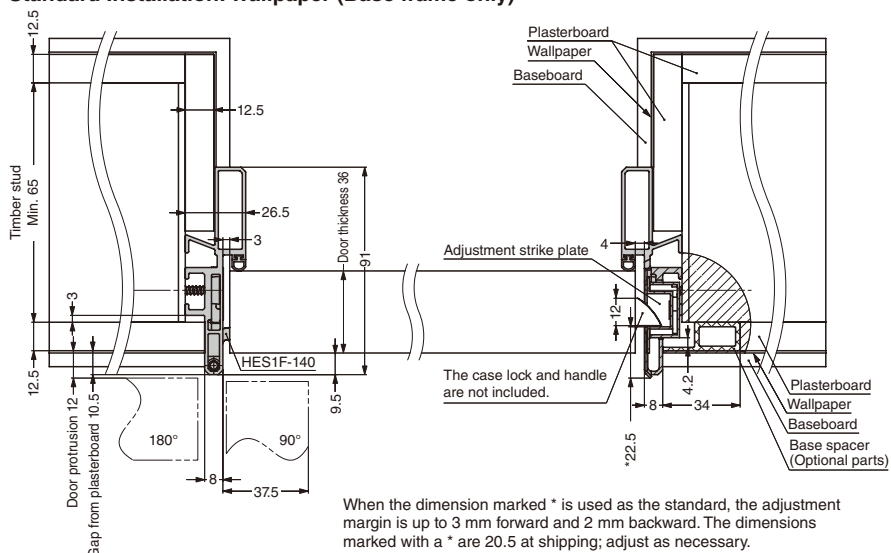
Left-handed type shown.
Use the optional base spacer with the standard installation below.
For details, see the base spacer cut out dimensions (P.16).

Standard Installation (Base Frame + Adjustment Frame)



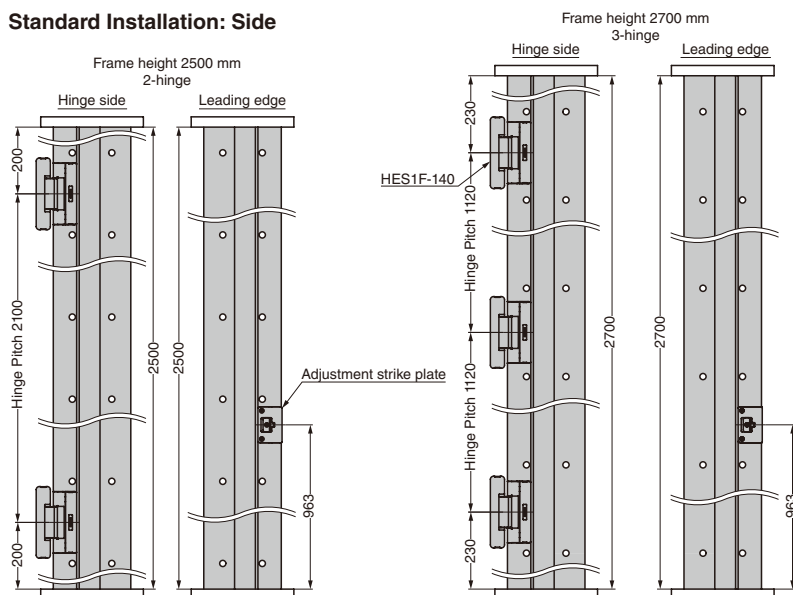
When the dimension marked * is used as the standard, the adjustment margin is up to 3 mm forward and 2 mm backward. The dimensions marked with a * are 20.5 at shipping; adjust as necessary.

Standard Installation: Wallpaper (Base frame only)

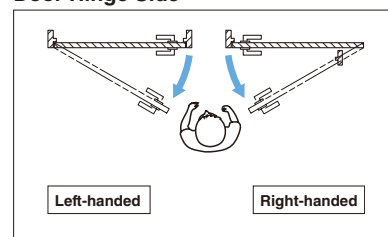


When the dimension marked * is used as the standard, the adjustment margin is up to 3 mm forward and 2 mm backward. The dimensions marked with a * are 20.5 at shipping; adjust as necessary.

Standard Installation: Side

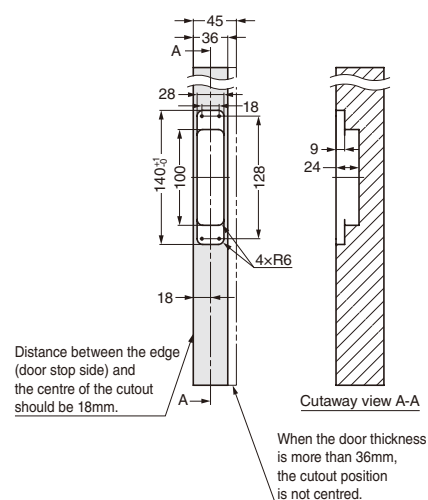


Door Hinge Side



Door Side Cut Out Dimensions

For right-handed doors, the position of the cutout should be reversed.



Baseboard Thickness Guideline

Door Thickness	36	40	45
Baseboard Thickness	Max. 9	Max. 8	Max. 3

Frames can be cut

For cutting specifications, please check the instruction manual on our website.



HES Concealed Hinges



LAMP 3-WAY ADJUSTABLE CONCEALED HINGE HES3D-120

Latest
Info

Passed Private 300K Cycle Test

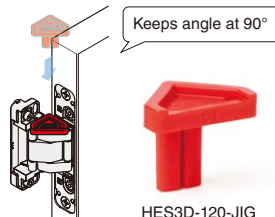


KIDS DESIGN AWARD 2021

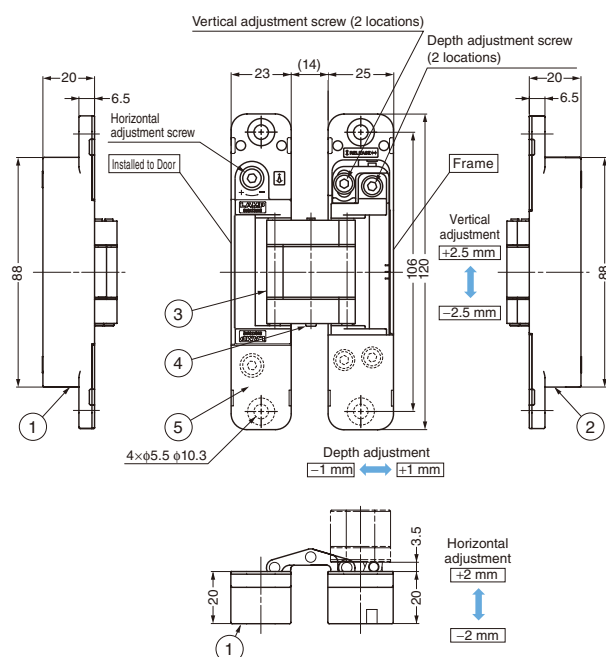
Without Covers



Easy Installation with Jig



HES3D-120-JIG



- Thin profile (21mm) allows for shallow mortise.
- 3D Adjustment Post Installation: Adjust vertically, horizontally, and depth.
- For simplified door hanging, the hinge divides into two parts: one for the door-side and one for the jamb-side.
- Can temporarily be hung before fixing with screws.
- Custom colors available on request. Please contact us for details.

INSTRUCTION

SCREW

Remarks

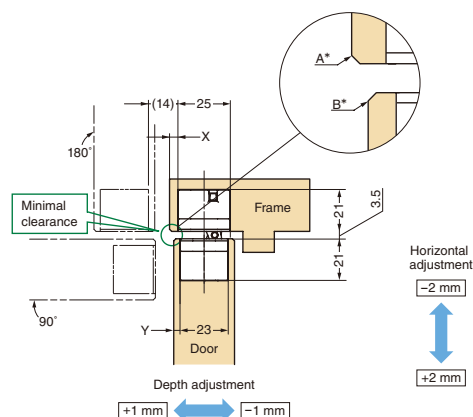
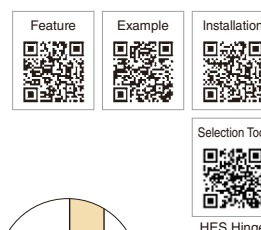
- Read all remarks on handling thoroughly before use.
- Please use the Selection Tool for HES Concealed Hinges to select a hinge.
- Recommended for use with the following compatible door damper/door closers: LDD-S (P.45-46) and LDD-V (P.41).
- When used in combination with door restrictors, please use HES3D-120-A100 instead. (P.21)

Parts Included

- Countersunk head tapping screw 5x20
- Hex. wrench (a nominal diameter 3)
- Cutout template

Sold Separately

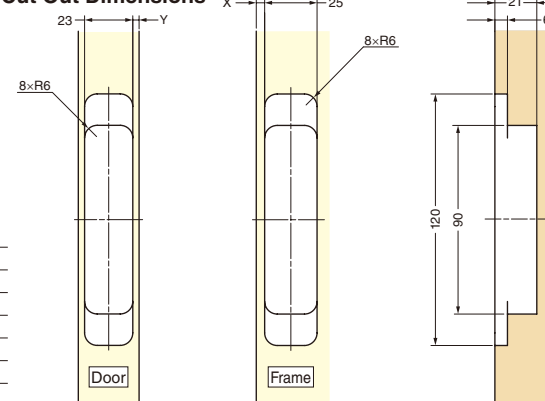
- Metal door bracket 120BKT (P.31)



Please process the part (corner of door/frame) of * marked on the drawing to C1 or more (or R1 or more).

Y: Door machining margin	B: Door chamfering	X: Frame machining margin	A: Frame chamfering
	1	5 and under	1
4 and under	2	6	2
		7	
5	3	5 and under	3

Cut Out Dimensions



No.	Part Name	Material	Finish/Colour		
			DC	DN	BL
①	Body	Zinc Alloy (ZDC)	Satin Chrome	Satin Nickel	Black
②	Base Frame	Zinc Alloy (ZDC)	Satin Chrome	Satin Nickel	Black
③	Arm	Zinc Alloy (ZDC)	Satin Chrome	Satin Nickel	Black
④	Shaft	Stainless Steel	-	-	-
⑤	Cover (2 pairs)	ABS	Satin Chrome	Satin Nickel	Black

RcHS	CAD	Item Code	Item Name	Colour	Door Width	Door Height	Door Thickness	Door Weight		Opening Angle	Weight	Box	Carton
●	●	-	HES3D-120DC	Silver	Max. 900	Max. 2400	Min. 29	Max. 30 kg/2 pcs	Max. 40 kg/3 pcs	180°	401 g	2 pcs	24 pcs
●	●	-	HES3D-120DN	Champagne Gold	Max. 900	Max. 2400	Min. 29	Max. 30 kg/2 pcs	Max. 40 kg/3 pcs	180°	401 g	2 pcs	24 pcs
-	●	-	HES3D-120BL	Black	Max. 900	Max. 2400	Min. 29	Max. 30 kg/2 pcs	Max. 40 kg/3 pcs	180°	401 g	2 pcs	24 pcs

Installation Template This is sold in pairs, one for the door and one for the frame.

RcHS	CAD	Item Code	Item Name	Material	Colour
-	-	170-024-569	HES3D-120-TMP	Methacrylic Resin (PMMA)	Clear

Installation Jig

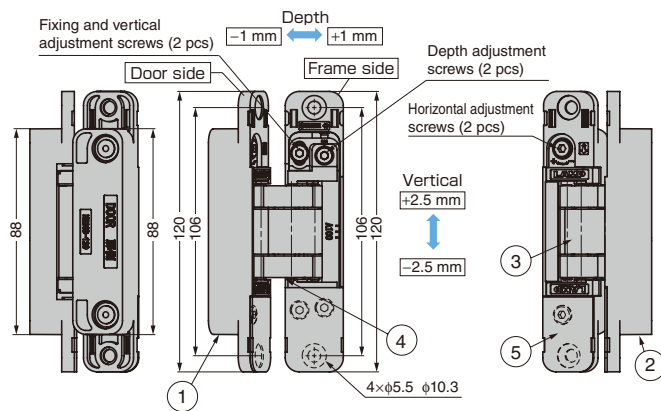
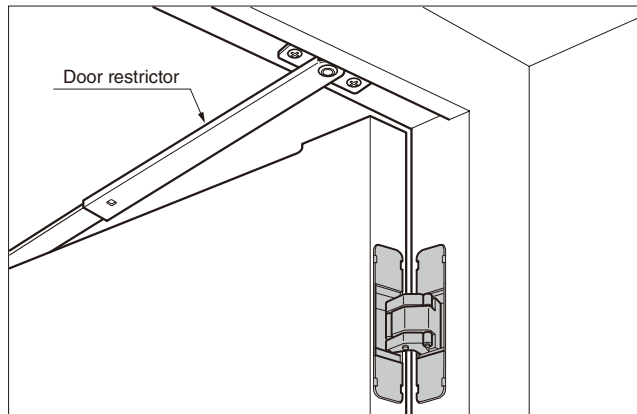
RcHS	CAD	Item Code	Item Name	Material	Colour	Weight (g)
●	-	170-044-186	HES3D-120-JIG	Polyacetal (POM)	Red	4

LAMP 3-WAY ADJUSTABLE CONCEALED HINGE HES3D-120-A100 100° Opening **NEW**Latest
Info

Passed Private 300K Cycle Test



KIDS DESIGN AWARD 2021

Using with a Door Restrictor

*The upper screw covers are removed in the drawing above.

No.	Part Name	Material	Finish/Colour		
			DC	DN	BL
①	Body	Zinc Alloy (ZDC)	Satin Chrome	Satin Nickel	Black
②	Base Frame		Satin Chrome	Satin Nickel	Black
③	Arm		Satin Chrome	Satin Nickel	Black
④	Shaft	Stainless Steel	—	—	—
⑤	Screw Cover (Door side: 2 pcs) (Frame side: 2 pcs)	ABS	Satin Chrome	Satin Nickel	Black

RoHS	CAD	Item Code	Item Name	Finish	Door Specs			Load Capacity			Opening Angle	Box (pcs)	Carton (pcs)
					Width	Height	Thickness	N / 2 pcs	kgf / 2 pcs	N / 3 pcs	kgf / 3 pcs		
●	●	170-044-569	HES3D-120-A100DC	Silver	Max. 900	Max. 2400	Min. 29	294	30	392	40	100°	2
●	●	170-044-570	HES3D-120-A100DN	Champagne Gold									
●	●	170-044-571	HES3D-120-A100BL	Black									

Installation Template This is sold in pairs, one for the door and one for the frame.

RoHS	CAD	Item Code	Item Name	Material	Colour
—	—	170-024-569	HES3D-120-TMP	Methacrylic Resin (PMMA)	Clear

- Can limit opening angle when used in combination with door restrictors.
- Thin profile (21 mm) allows for shallow mortise.
- 3D Adjustment Post Installation: Adjust vertically, horizontally, and depth.
- For simplified door hanging, the hinge divides into two parts: one for the door-side and one for the jamb-side.
- Can temporarily be hung before fixing with screws.

INSTRUCTION

SCREW

Remarks

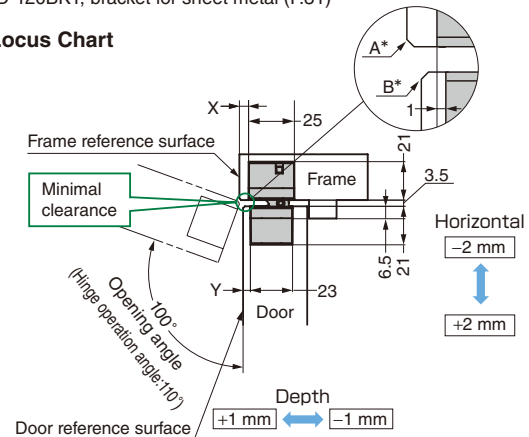
- Read all remarks on handling thoroughly before use.
- Please use the Selection Tool for HES Concealed Hinges to select a hinge.
- Please use with door restrictors or door stoppers to prevent doors from opening over 100°.
- When using with door dampers or door closers, please chose from the LDD-S (P.45-46), LDD-V (P.41), and LDC-N2 (No.500 Catalogue P.572). Please note that the door weight should meet moment conditions of both door closers and door dampers. Verify all conditions before installation.
- When using a concealed door closers, the HES3D-160 is recommended.

Parts Included

- Cross-recessed countersunk tapping screw 5×20 4 pcs (made of stainless steel)
- Hex key spanner 3

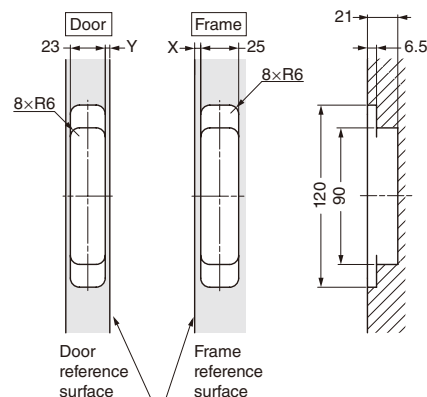
Optional Parts

- HES3D-120TMP, installation template (P.27)
(This reusable jig allows for easy mortising of doors and frames using routers.)
- HES3D-120BKT, bracket for sheet metal (P.31)

Locus Chart

Y : Door Clearance	B : Door Chamfering	X : Frame Clearance	A : Frame Chamfering
4	1	5	1
	2	6	2
5	3	7	3
		5	

The table above shows the clearance and chamfering required for the door to open properly.

Cut Out Dimensions

HES Hinge

LAMP 3-WAY ADJUSTABLE CONCEALED HINGE HES3D-H120-36 Centre Door Mortise NEW

Latest Info



Passed Private 300K Cycle Test



KIDS DESIGN AWARD 2021

Without Covers



Easy Installation with Jig



- For a 36mm thick door, the mortise is centred and allows it to function as either a left or right-handed door.
- **Has increased load capacity of 50 kg with two hinges.**
- Thin profile (21mm) allows for shallow mortise.
- 3D Adjustment Post Installation: Adjust vertically, horizontally, and depth.
- For simplified door hanging, the hinge divides into two parts: one for the door-side and one for the jamb-side.
- Can temporarily be hung before fixing with screws.

INSTRUCTION

SCREW

Applications

- Interior doors

Parts Included

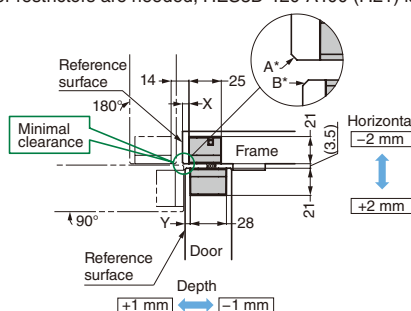
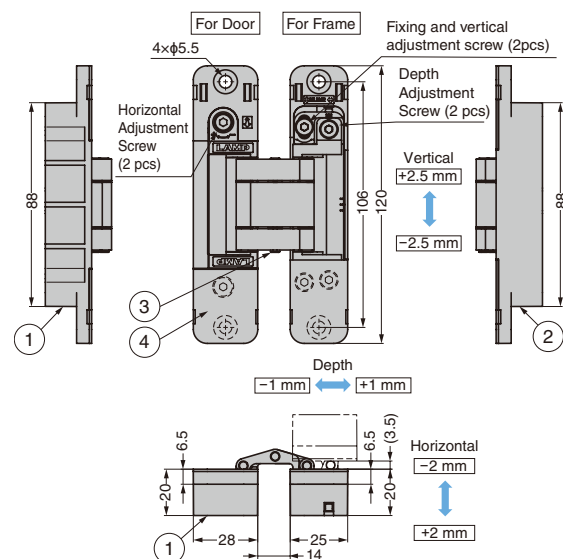
- Cross-recessed countersunk tapping screw 5 x 20 (4 pcs / hinge) stainless steel
- Hex key 3
- Cutout template

Sold Separately

- HES3D-120-JIG (Trigger Mounting Jig)
- HES3D-H120-TMP (Installation Jig)

Remarks

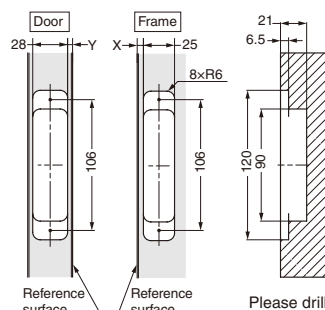
- Read all remarks on handling thoroughly before use.
- Please use the Selection Tool for HES Concealed Hinges to select a hinge.
- When use with a door damper, the following dampers are recommended:
 - LDD-S (P.45-46) - LDD-V (P.41)
 - LDD-V100 (P.43-44) - LDC-N2 (No.500 Catalogue P.572)
- * Each door damper has different load capacity. Please check that before use.
- Required number of hinges also depends on door stiffness and warpage. Please check actual conditions and performance before use.
- If door restrictors are needed, HES3D-120-A100 (P.21) is recommended.



Door		Frame	
Y : Machining Margin	B : Chamfering	X : Machining Margin	A : Chamfering
Max. 4	1	Max. 5	1
	2	6	2
	3	7	3
5	3	Max. 5	3

The table shows how much margin and chamfering are required for the door to open properly.

Cut Out Dimensions



Please drill prepared holes for the tapping screws.

Hinge

RoHS	CAD	Item Code	Item Name	Colour	Door Specs			Load Capacity				Opening Angle	Box (pcs)	Carton (pcs)
					Width	Height	Thickness	N/2 pcs	kgf/2 pcs	N/3 pcs	kgf/3 pcs			
●	●	170-047-861	HES3D-H120-36DC	Silver	Max. 900	Max. 2700	Min. 34	490	50	637	65	180°	2	24
●	●	170-047-862	HES3D-H120-36DN	Champagne Gold										
●	●	170-047-863	HES3D-H120-36BL	Black										

Installation Template

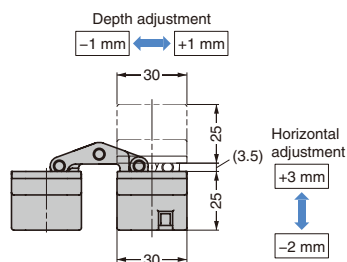
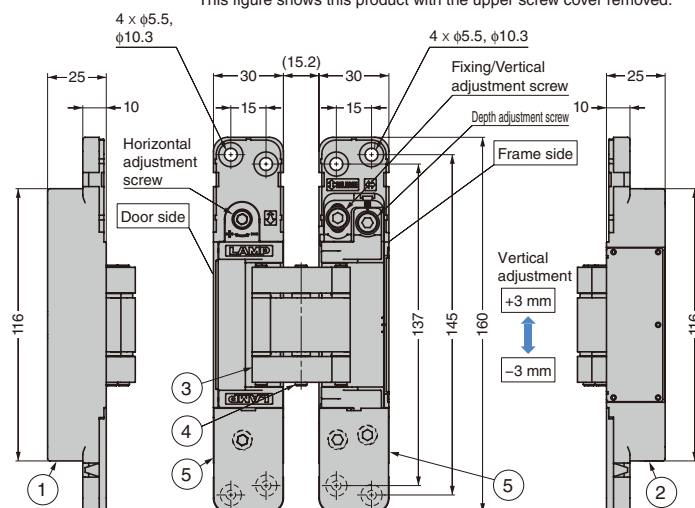
This is sold in pairs, one for the door and one for the frame.

RoHS	CAD	Item Code	Item Name	Material	Colour
-	-	170-056-825	HES3D-H120-TMP	Methacrylic Resin(PMA)	Clear

Installation Jig

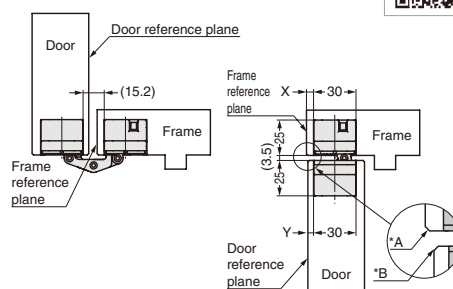
sold separately

RoHS	CAD	Item Code	Item Name	Material	Colour	Weight (g)	Box (pcs)	Carton (pcs)
●	●	170-044-186	HES3D-120-JIG	POM	Red	4	100	400

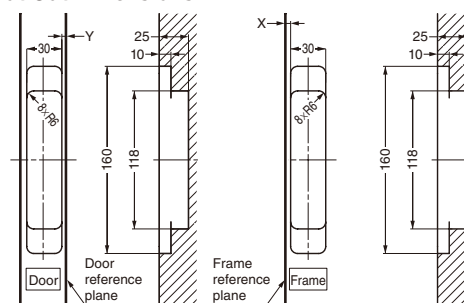


RoHS	CAD	Item Code	Item Name	Colour	Door Specs			Load Capacity				Opening Angle
					Width (mm)	Height (mm)	Thickness (mm)	N / 2 pcs	kgf / 2 pcs	N / 3 pcs	kgf / 3 pcs	
		—	HES3D-E160DC	Silver	Max. 900	Max. 2400	Min. 36	539	55	686	70	180°
		—	HES3D-E160DN	Champagne Gold								
		—	HES3D-E160BL	Black								

RoHS	CAD	Item Code	Item Name	Material	Colour
-	-	170-047-841	HES3D-E160-TMP	Methacrylic Resin (PMMA)	Clear



Y: Door machining margin	B: Door chamfering	X: Frame machining margin	A: Frame chamfering
4 and under	1	5 and under	1
4 and under	2	6	2
4 and under	2	7	3
5	3	5 and under	3
5	3	6	4



2024-10-03 時点の情報です

LAMP 3-WAY ADJUSTABLE CONCEALED HINGE **HES3D-E190**Latest
Info

Passed Private 300K Cycle Test



Without covers.



- Thin profile allows for shallow mortise.
- 3D Adjustment Post Installation: Adjust vertically, horizontally, and depth.
- For simplified door hanging, the hinge divides into two parts: one for the door-side and one for the jamb-side.
- Can temporarily be hung before fixing with screws.
- Has a fire safety rating of ANSI/UL 10C, CAN/ULC-S104
- Custom colours available on request. Please contact us for details.

INSTRUCTION

SCREW

Remarks

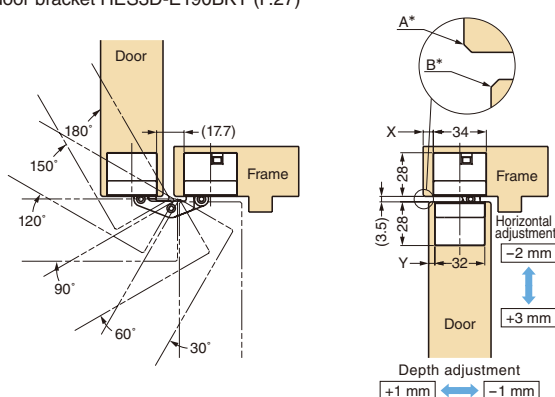
- Read all remarks on handling thoroughly before use.
- Please use the Selection Tool for HES Concealed Hinges to select a hinge.

Parts Included

- Countersunk head screw 5×30 (4 pcs/hinge)
- Allen key size 4

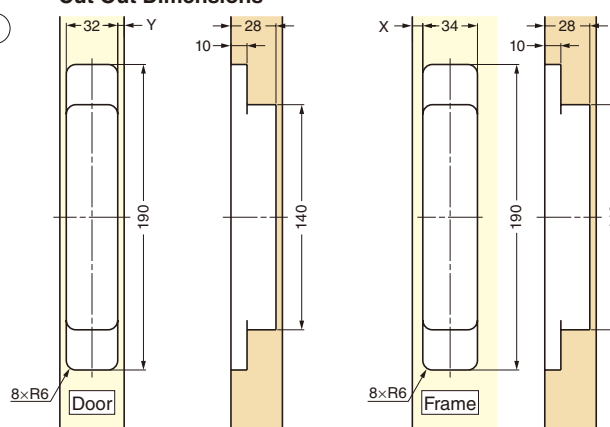
Sold Separately

- Installation template HES3D-E190-TMP (P.27)
- Metal door bracket HES3D-E190BKT (P.27)



Please process the part (corner of door/frame) of * marked on the drawing to C1 or more (or R1 or more).

Y: Door machining margin	B: Door chamfering	X: Frame machining margin	A: Frame chamfering
4 and under	1	6.5 and under	1
	2	7	2
		8	3
5	3	6.5 and under	2
		7	3
		8	4

Cut Out Dimensions

No.	Part Name	Material	Finish/Colour			
			DC	DN	BL	NI
①	Body	Zinc Alloy (ZDC)	Satin Chrome	Satin Nickel	Black Enamel	Nickel
②	Base Frame	Zinc Alloy (ZDC)	Satin Chrome	Satin Nickel	Black Enamel	Nickel
③	Arm	Aluminum Alloy	Satin Chrome	Satin Nickel	Black Enamel	Nickel
④	Shaft	Stainless Steel	Plain	Plain	Plain	Plain
⑤	Cover	ABS	Silver	Champagne Gold	Black	Nickel

RoHS	CAD	Item Code	Item Name	Colour	Door Specs					Opening Angle	Weight	Box	Carton
					Width	Height	Thickness	Weight					
●	●	—	HES3D-E190DC	Silver	Max. 900	Max. 2400	Min. 38 mm	Max. 100 kg/2 pcs	Max. 125 kg/3 pcs	180°	1,100 g	2 pcs	12 pcs
●	●	—	HES3D-E190DN	Champagne Gold	Max. 900	Max. 2400	Min. 38 mm	Max. 100 kg/2 pcs	Max. 125 kg/3 pcs	180°	1,100 g	2 pcs	12 pcs
●	●	—	HES3D-E190BL	Black	Max. 900	Max. 2400	Min. 38 mm	Max. 100 kg/2 pcs	Max. 125 kg/3 pcs	180°	1,100 g	2 pcs	12 pcs
—	—	170-033-568	HES3D-E190NI	Nickel	Max. 900	Max. 2400	Min. 38 mm	Max. 100 kg/2 pcs	Max. 125 kg/3 pcs	180°	1,100 g	2 pcs	12 pcs

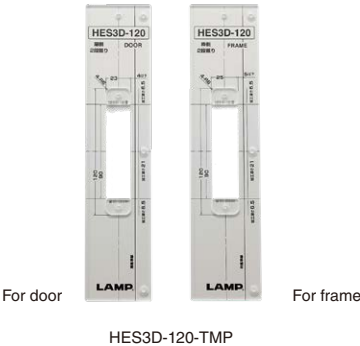
Installation Template This is sold in pairs, one for the door and one for the frame.

RoHS	CAD	Item Code	Item Name	Material	Colour
●	—	170-028-808	HES3D-E190-TMP	Methacrylic Resin (PMMA)	Clear

LAMP INSTALLATION TEMPLATE HES3D-TMP



HES3D
HES3D
Options



• Installation template for HES3D hinges.

Remarks

- The HES3D-120TMP, HES3D-H120TMP, HES3D-160-TMP, HES3D-E190-TMP, and HES3D-V135-TMP are sold in pairs, one for the door and one for the frame.
- The HES3D-70TMP and HES3D-90-TMP are sold singly, because they can be used on both the door and frame.
- Recommended working tool is a straight bit with guide bearings of which guide diameter and bit diameter are the same.

Sold Separately

- HES3D-70 (P.35)
- HES3D-90 (P.36)
- HES3D-120 (P.20)
- HES3D-H120-36 (P.22)
- HES3D-E160 (P.24)
- HES3D-E190 (P.26)
- HES3D-W190 (P.29-30)
- HES3D-V135LGR (P.23)

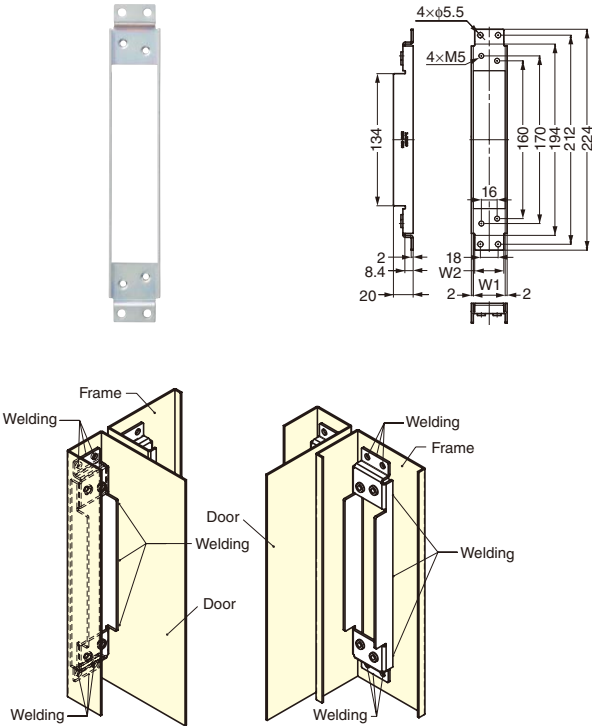


RdHS	CAD	Item Code	Item Name	Applicable Hinge	Material	Colour
●	—	170-040-988	HES3D-70-TMP	HES3D-70	Methacrylic Resin (PMMA)	Clear
●	—	170-029-034	HES3D-90-TMP	HES3D-90	Methacrylic Resin (PMMA)	Clear
—	—	170-024-569	HES3D-120-TMP	HES3D-120	Methacrylic Resin (PMMA)	Clear
—	—	170-056-825	HES3D-H120-TMP	HES3D-H120-36	Methacrylic Resin (PMMA)	Clear
—	—	170-047-841	HES3D-E160-TMP	HES3D-E160	Methacrylic Resin (PMMA)	Clear
●	—	170-028-808	HES3D-E190-TMP	HES3D-E190	Methacrylic Resin (PMMA)	Clear
●	—	170-047-842	HES3D-W190-TMP	HES3D-W190	Methacrylic Resin (PMMA)	Clear
—	—	170-024-572	HES3D-V135-TMP	HES3D-V135LGR	Methacrylic Resin (PMMA)	Clear

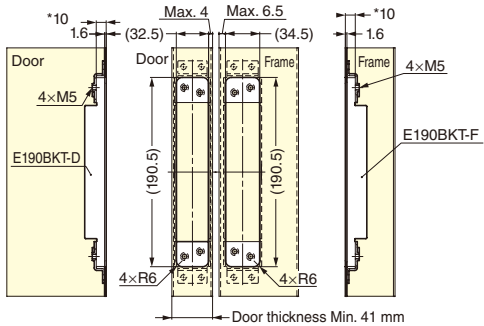
LAMP BRACKET OF HES3D-E190 FOR SHEET METAL HES3D-E190BKT



• Bracket to use HES3D-E190 hinge (P.26) with sheet metal.



Installation



*Dimensions: For flat surface in case of 1.6 mm thick sheet metal.

RdHS	CAD	Item Code	Item Name	Type	Material	Finish/Colour	W1	W2	Weight	Carton
●	●	170-032-741	HES3D-E190BKT-D	For Door	Steel (SPCC)	Zinc Chromate	32.3	29.5	135 g	50 pcs
●	●	170-032-742	HES3D-E190BKT-F	For Frame			34.3	31.5	135 g	50 pcs



HES Concealed Hinges



HES3D
HES3D
Options



Passed Private 300K Cycle Test



Silver

Champagne Gold



Without covers



Black

Nickel

With Angular Edge Cover

- Has a long arm for a wider throw. This allows for use on clad and thick doors.
- Thin profile allows for shallow mortise.
- 3D Adjustment Post Installation: Adjust vertically, horizontally, and depth.
- For simplified door hanging, the hinge divides into two parts: one for the door-side and one for the jamb-side.
- Can temporarily be hung before fixing with screws.
- Custom colours available on request. Please contact us for details.
- Replacement screw covers are also available. Please contact us.
- UL Rated, up to 3 Hours (DC, DN, and BL models only).
- Angular Edge Cover is now available.

INSTRUCTION SCREW

Remarks

- Read all remarks on handling thoroughly before use.
- Please use the Selection Tool for HES Concealed Hinges to select a hinge.

Parts Included

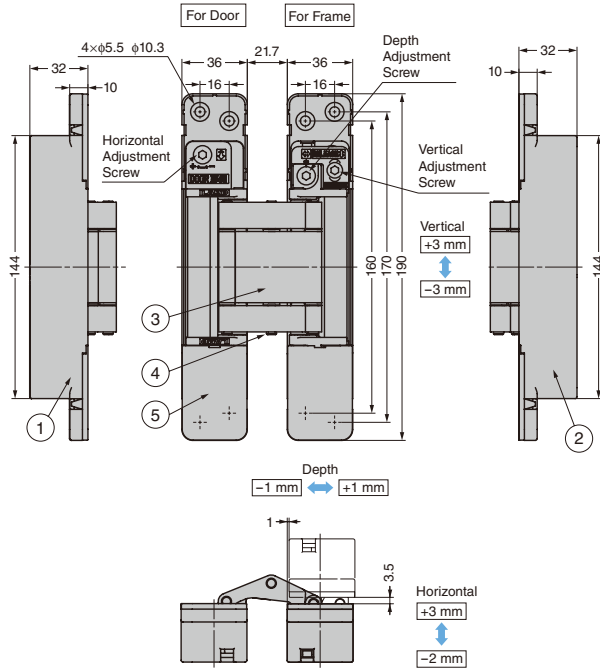
- Cross-recessed countersunk tapping screw 5 × 30 (8 pcs / hinge) stainless steel
- Hex key 4
- Cutout template

Optional Parts

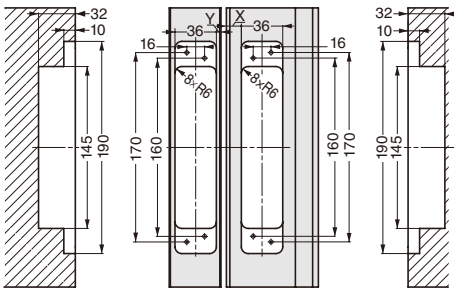
- Installation jig HES3D-W190-TMP (P.27)
- Angular Edge Cover
- Stainless steel screw cover (made to order)



HES Hinge

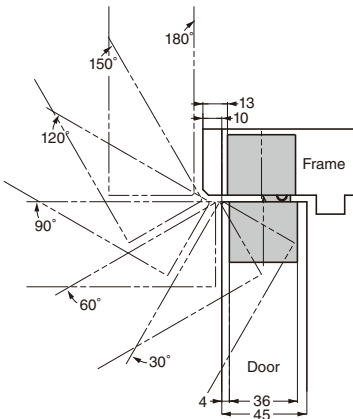


Cut Out Dimension



Please drill prepared holes for the tapping screws if the optional jig (HES3D-W190-TMP) is not used.

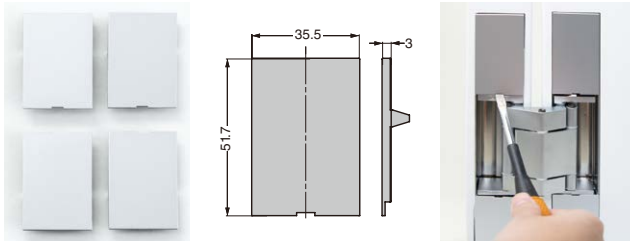
Locus Chart



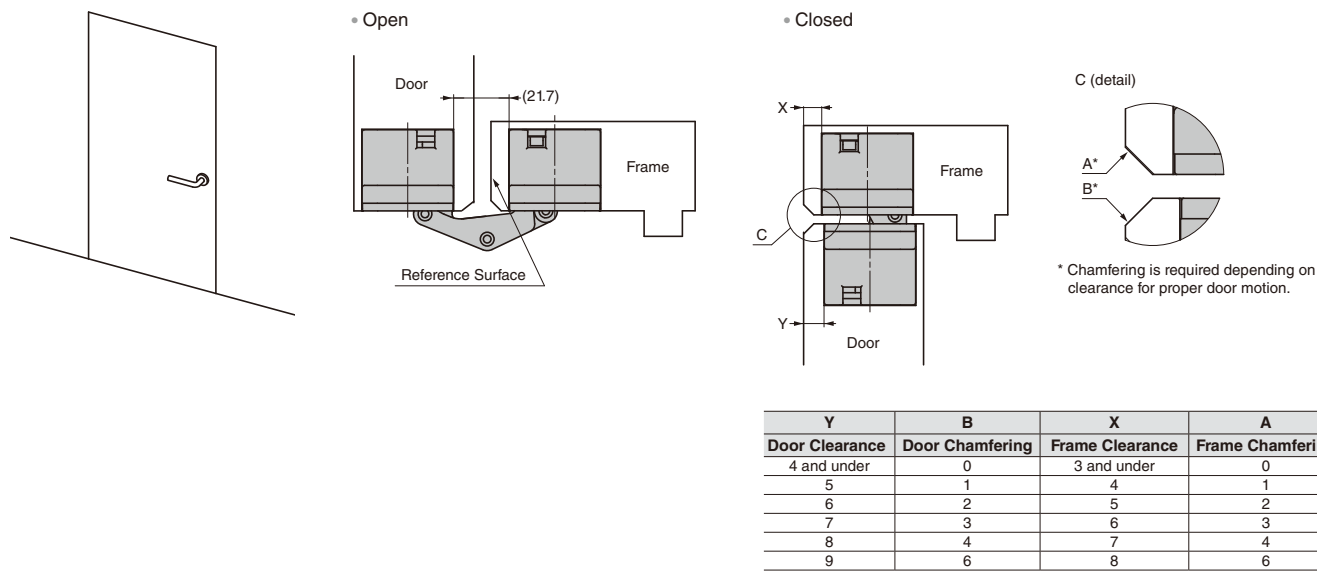
The example drawing shows the case that there is a step of 10 mm between the door and the frame.

No.	Part Name	Material	Finish/Colour			
			DC	DN	BL	PN
①	Body	Zinc Alloy (ZDC)	Satin	Nickel	Enamel Black	Polished Nickel
②	Base Frame					
③	Arm	Aluminium Alloy				
④	Shaft	Stainless Steel	Plain	Plain	Plain	Plain
⑤	Screw Cover	ABS	Silver	Champagne Gold	Black	Polished Nickel

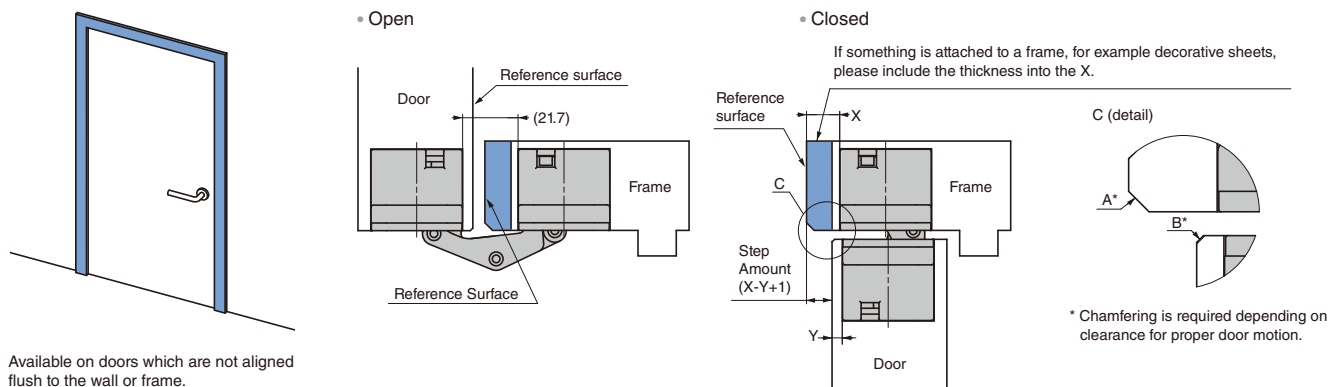
Angular Edge Cover (Optional Parts)



Flush Installation



Cladded Installation



Available on doors which are not aligned flush to the wall or frame.

Y	B	X	A	X-Y+1
Door Clearance	Door Chamfering	Frame Clearance	Frame Chamfering	Step Amount
3	0	3 to 12	0	1 to 10
		13	1	11
		14	2	12
		15	4	13
		3 to 10	0	0 to 7
4	1	11	1	8
		12	2	9
		13	3	10
		14	4	11
		3 to 6	0	-1 to 2
5	2	7	1	3
		8	2	4
		9	3	5
		10	4	6
		11	4	7
	3	12	5	8
		13	6	9

Y	B	X	A	X-Y+1		
Door Clearance	Door Chamfering	Frame Clearance	Frame Chamfering	Step Amount		
6	3	3 to 6	0	-2 to 1		
		7	1	2		
		8	2	3		
	4	9	3	4		
		10	4	5		
		11	5	6		
		12	6	7		
		7	5	3 to 6	0	-3 to 0
7	1			1		
8	2			2		
6	9		3	3		
	10		5	4		
	11		7	5		
	8		6	3 to 6	0	-4 to -1
				7	1	0
8		3		1		
9		5		2		
			10	7	3	

RoHS	CAD	Item Code	Item Name	Colour	Door Size			Load Capacity				Opening Angle	Weight (g)	Box (pcs)	Carton (pcs)
					Width	Height	Thickness	N/2pcs	kgf/2pcs	N/3pcs	kgf/3pcs				
●	●	—	HES3D-W190DC	Silver	Max. 915	Max. 2440	Min. 42	981	100	1230	125	180°	—	2	12
●	●	—	HES3D-W190DN	Champagne Gold										2	12
●	●	—	HES3D-W190BL	Black										2	12
●	●	170-047-904	HES3D-W190NI	Nickel										2	12

Installation Template This is sold singly, because they can be used on both the door and frame.

RoHS	CAD	Item Code	Item Name	Material	Colour
●	—	170-047-842	HES3D-W190-TMP	Methacrylic Resin (PMMA)	Clear

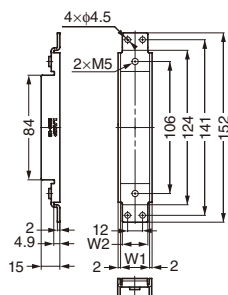
Angular Edge Cover

RoHS	CAD	Item Code	Item Name	Material	Colour
●	●	170-052-813	HES3D-W190SQC-DC	ABS	Silver
●	●	170-052-814	HES3D-W190SQC-BL		Black

LAMP BRACKET OF HES3D-120 FOR SHEET METAL HES3D-120BKT

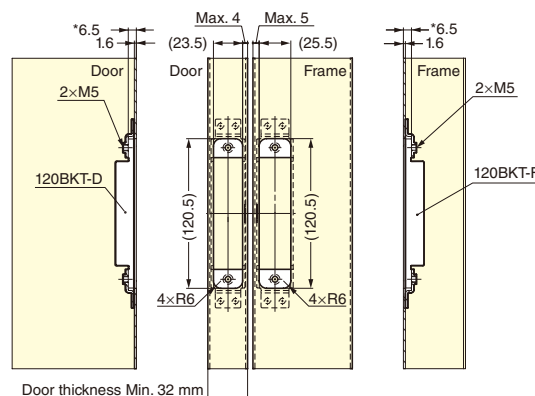
Latest
Info

HES3D
Options
HES3D



• Bracket to use HES3D-120 (P.20) hinge, HES3D-120-A100 (P.21) with sheet metal.

Installation



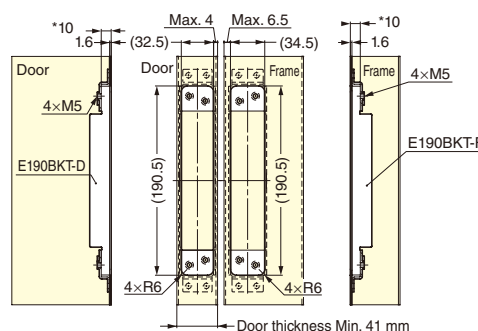
*Dimensions: For flat surface in case of 1.6 mm thick sheet metal.

RoHS	CAD	Item Code	Item Name	Type	Material	Finish/Colour	W1	W2	Weight	Carton
●	●	170-032-739	HES3D-120BKT-D	For Door	Steel (SPCC)	Zinc Chromate	23.3	20.5	58 g	50 pcs
●	●	170-032-740	HES3D-120BKT-F	For Frame			25.3	22.5	58 g	50 pcs

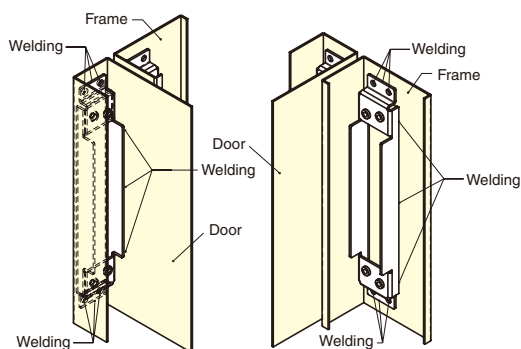
BRACKET OF HES3D-E190 FOR SHEET METAL HES3D-E190BKT

• Bracket to use HES3D-E190 hinge (P.26) with sheet metal.

Installation



*Dimensions: For flat surface in case of 1.6 mm thick sheet metal.



RoHS	CAD	Item Code	Item Name	Type	Material	Finish/Colour	W1	W2	Weight	Carton
●	●	170-032-741	HES3D-E190BKT-D	For Door	Steel (SPCC)	Zinc Chromate	32.3	29.5	135 g	50 pcs
●	●	170-032-742	HES3D-E190BKT-F	For Frame			34.3	31.5	135 g	50 pcs

Easy to Install No Jamb Cutouts Needed

HES2S-140-A125

《 No mortising on the jamb side. 》

《 Useful on jambs that are too thin to mortise. 》

《 Compact body with high load capacity. 》



Black



Dark Grey



Light Grey

LAMP® NEW

SURFACE-MOUNT CONCEALED HINGE HES2S-140-A125

Load Capacity

50kgf /2 pcs 65kgf /3 pcs

3D Adjustability

Vertical: $\pm 3\text{mm}$
Horizontal: $+1\text{mm}$
Depth: $\pm 3\text{mm}$

Easy to Install

No mortising is required on the jamb side.

■ Can be used on slim-framed and frameless doors because no jamb mortising is required.



LAMP SURFACE-MOUNT CONCEALED HINGE HES2S-140-A125 125° Opening **NEW**

Latest Info



Passed Private 300K Cycle Test



Black

Dark Grey

Light Grey



Closed



Back



With cover and plate removed



- Surface mounts on the jamb side for easy installation.
- 3D Adjustment Post-Installation: adjust vertically, horizontally, and depth.

INSTRUCTION

SCREW

Remarks

- Read all remarks on handling thoroughly before use.
- Use with a door stopper, etc. to prevent opening farther than 125°.

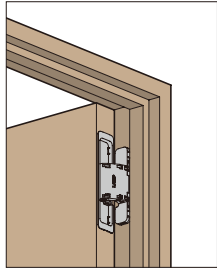
Parts included

- Countersunk head tapping screw 4x20 (8 pcs/hinge) Steel
- Door side drilling/frame side mounting template



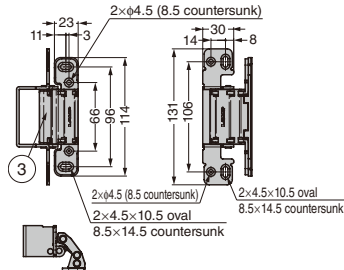
HES Hinge

Usage Image

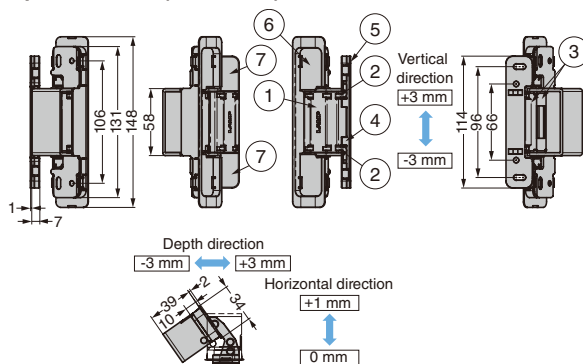


No mortising on the frame side is required.

Opened to 90°(without cover)

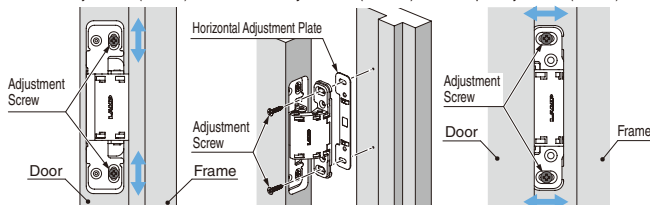


Opened to 125°(with cover)



Door Position Adjustment

- Vertical adjustment (± 3 mm)
- Horizontal adjustment (± 1 mm)
- Depth adjustment (± 3 mm)



Adjust in the vertical/depth directions with oval hole screws and in the horizontal direction with the plate.

Hinge

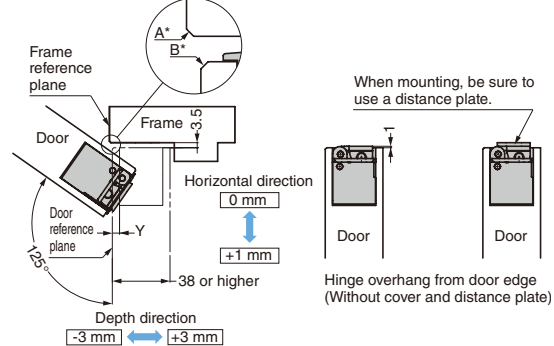
RoHS	CAD	Item Code	Item Name	Colour	Door Width	Door Height	Door Thickness	Door Weight kgf/2 pcs	Door Weight kgf/3 pcs	Opening Angle
●	●	170-053-252	HES2S-140-A125-DGR	Dark Grey	Max. 900	Max. 2700	Min. 38	50	65	125°
●	●	170-053-253	HES2S-140-A125-LGR	Light Grey						
●	●	170-050-758	HES2S-140-A125-BL	Black						

Installation Template This is sold singly, because they can be used on both the door and frame.

RoHS	CAD	Item Code	Item Name	Material	Colour
-	-	170-056-826	HES2S-140-TMP	Methacrylic Resin (PMMA)	Clear

Locus Chart

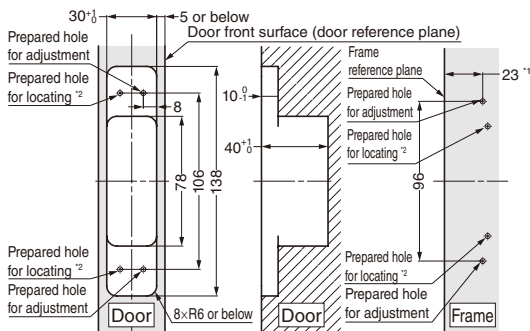
Drill at the * mark in the figure (door/frame corner).



Y: Door Machining Margin	B: Door chamfering	A: Frame chamfering
4 or below	1 or higher	1 or higher
5		

Cut Out Dimensions

Drill pilot holes at the positions of the adjustment and locating screws.



¹¹ When door machining margin is 5 mm.

¹² The position of prepared hole for locating changes according to adjustment.

No.	Part Name	Material	Finish / Colour
①	Body	POM	Dark Grey, Light Grey, Black
②	Base Plate	SPCC	Nickel
③	Arm	Zinc Alloy (ZDC)	Chemical Treatment
④	Distance Plate	PBT	Dark Grey, Light Grey, Black
⑤	Horizontal Adjustment Plate	POM	
⑥	Socket Cover	ABS	
⑦	Base Plate Cover		



HES
Hinge & Spirit

Three views of the EASYLINE door handle are shown side-by-side. From left to right, the handles are white, beige, and black. Each handle is shown in a three-quarter view, highlighting its rectangular shape, the central push-button, and the mounting plate. The brand name 'EASYLINE' is visible on the push-button of each handle.

Technical drawings of the door and frame assembly showing dimensions and tolerances:

- Door side:** Dimensions 143, 160, and 4.2.
- Frame side:** Dimensions 137, 71, and 114.
- Vertical direction:** Tolerances of +3mm and -3mm.
- Depth direction:** Tolerances of +2mm and -2mm.
- Horizontal direction:** Tolerances of +2mm and -2mm.
- Other dimensions:** 114, 96, 66, 39.5, 23, 2, 1.5, 1.5, 1.5, 1.5, 1.5, 1.5.

Technical drawing of the door handle assembly, showing front and side views with dimensions and callouts.

Front View Dimensions:

- 9
- 2.5
- 19
- 66
- 96
- 115

Side View Dimensions:

- 27
- 15
- 6
- 143
- 128
- 124

Callouts and Dimensions:

- Door side fixing screw hole (2 pcs)
- Depth Adjustment Screw/ Mounting Screw (2 pcs)
- Frame side fixing screw hole (2 pcs)
- Vertical Adjustment Screw/ Mounting Screw (2 pcs)
- Horizontal adjustment screw (2 pcs)
- 5
- 4
- 2
- 2x $\phi 4.5$ (8.7 countersunk)
- 2x4.5x8.5 oval
- 8.7x12.7 countersunk
- 2x4.5x10.7 oval
- 2x $\phi 4.5$

Diagram shows product under development.

- INSTRUCTION

A close-up photograph of a door handle and lock mechanism. The handle is a dark, rectangular, push-button style. The lock is a cylindrical deadbolt. The door is a light-colored wood or laminate. The background is a plain, light-colored wall.

Y: Door Machining Margin	B: Door chamfering	A: Frame chamfering
4.5 or below	1 or higher	-

The technical drawings illustrate the door frame assembly with the following dimensions and labels:

- Top View (Left):** Shows the door frame assembly with labels for "Frame", "Door", and "Fixing screw position*¹⁾ (When vertically adjusted to centre)". Dimensions include 27 ± 1, 4.5 or below (Door front surface / Door reference plane), 6, 23 ± 1.1, 150 ± 1 (128), 90, and 124. A note indicates "C: Surface level difference".
- Side View (Right):** Shows the door frame assembly with labels for "Frame", "Door", "Fixing screw position*¹⁾ (When depth adjusted to centre)", "Depth adjustment screw pilot hole position", "Frame reference plane", "Depth adjustment screw pilot hole", "Fixing screw position*¹⁾ (When depth adjusted to centre)", "Depth adjustment screw pilot hole", and "Frame". Dimensions include 2.5, 40 ± 1, 66, and 6.6.
- Bottom View (Left):** Shows the door frame assembly with labels for "Door", "Fixing screw position*¹⁾ (When vertically adjusted to centre)", "Depth adjustment screw pilot hole", and "8xR6 (Max.)".

Detailed Figure Scale 2:1

35 mm door (machining margin 4 mm)		36 mm door (machining margin 4.5 mm)	
*C: Surface level difference	*D: Adjustment screw pilot hole position	*C: Surface level difference	*D: Adjustment screw pilot hole position
0	19	0	19.5
1	20	1	20.5
2	21	2	21.5
3	22	3	22.5
4	23	4	23.5
5	24	5	24.5

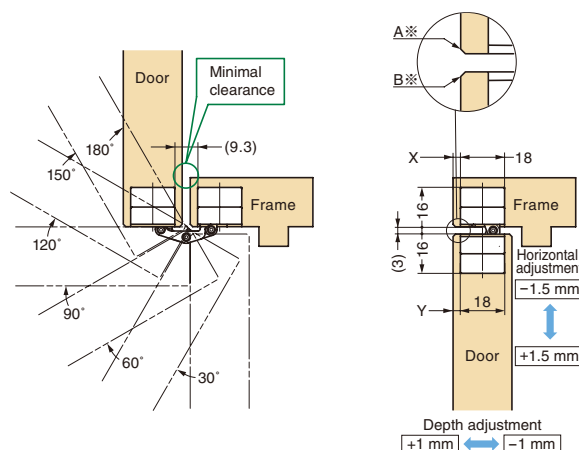
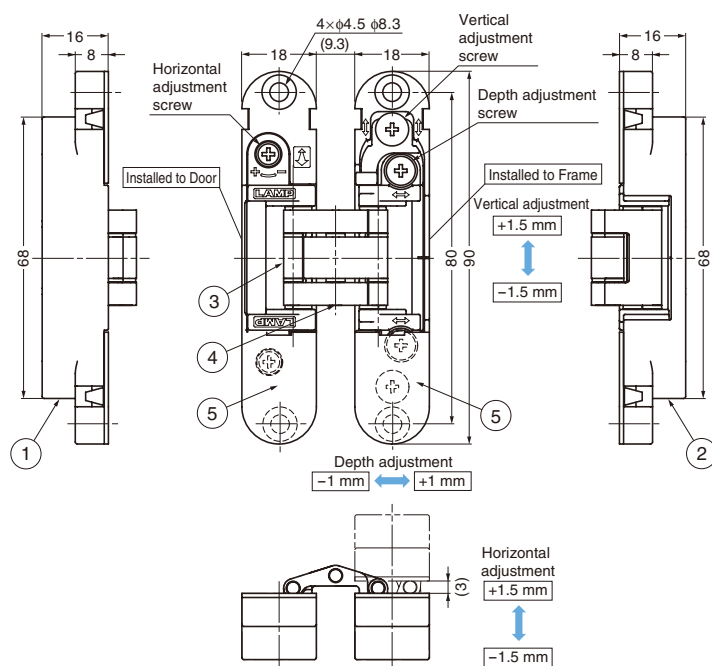
Installation Template This is sold singly, because they can be used on both the door and frame.

RoHS	CAD	Item Code	Item Name	Material	Colour
-	-	170-056-827	HES2S-150-TMP	Methacrylic Resin (PMMA)	Clear



- Thin profile allows for shallow mortise and makes installation easier
- Jig (sold separately) makes installation easy
- Vertical, horizontal and depth adjustment possible post-installation (3way)
- Can be split into two parts (one for the frame and one for the flap) making installation easy
- Custom colors available on request. Please contact us for details.
- Can be used with DC-200 damper catch but can not be used with lid stays or other door damper.

- Countersunk head screw 4x20 (4 pcs./hinge)
- Hexagonal spanner x2

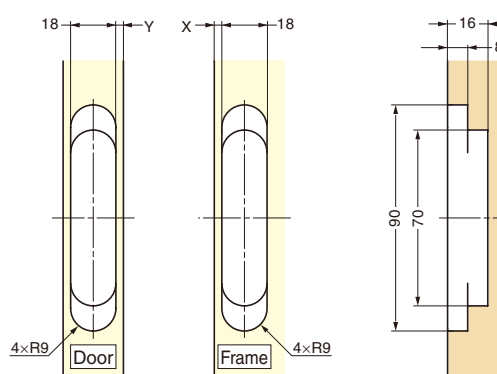


Y: Door machining margin	B: Door chamfering	X: Frame machining margin	A: Frame chamfering
3 and under	1	3 and under	1
3.5	2	4 3.5	2

No.	Part Name	Material	Finish		
			DC	DN	BL
①	Body	Zinc Alloy (ZDC)	Satin Chrome	Satin Nickel	Black Enamel
②	Base Frame	Zinc Alloy (ZDC)	Satin Chrome	Satin Nickel	Black Enamel
③	Arm	Zinc Alloy (ZDC)	Satin Chrome	Satin Nickel	Black Enamel
④	Shaft	Stainless Steel	—	—	—
⑤	Cover	ABS	Silver	Champagne Gold	Black



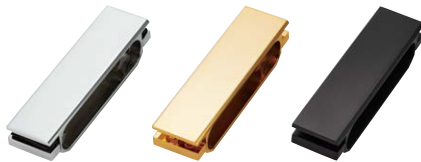
HES Hinge



RoHS	CAD	Item Code	Item Name	Material	Colour
●	-	170-029-034	HES3D-90-TMP	Methacrylic Resin (PMMA)	Clear

LAMP GLASS DOOR BRACKET HES3D-G90BKT, HES3D-G120BKT

HES3D-G90BKT

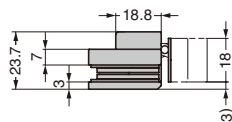
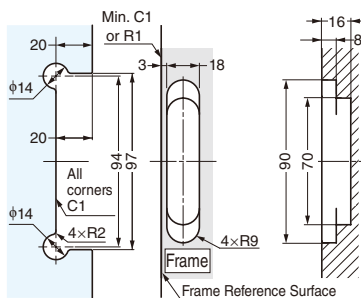


HES3D-G120BKT

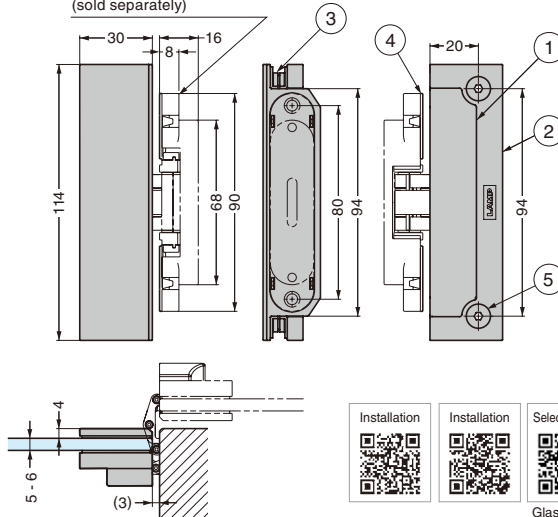


[HES3D-G90BKT]

[Cut Out Dimensions]



HES3D-90 Concealed Hinge (sold separately)



Glass Hinge

No.	Part Name	Material	Finish		
			CR	GP	BL
①	Body	Zinc Alloy (ZDC)	Chrome	24K Gold plating	Black Enamel Finish
②	Back Plate				
③	Gasket	Chloroprene Rubber (CR)	-	-	-
④	Screw Cover	ABS	Chrome	24K Gold plating	Black Enamel Finish
⑤	Hexagon Socket Countersunk Head Screw M5 x 12	Steel			

RcHS	CAD	Item Code	Item Name	Colour	Weight (g)	Box (pcs)	Carton (pcs)
●	●	170-035-802	HES3D-G90BKT-CR	Silver	245	2	24
●	●	170-035-803	HES3D-G90BKT-GP	Gold	245	2	24
●	●	170-035-804	HES3D-G90BKT-BL	Black	245	2	24

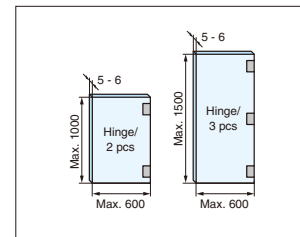
●Allows HES3D-90 hinge (P.36) and the HES3D-120 hinge (P.20) to be installed on glass doors.

[Parts Included]

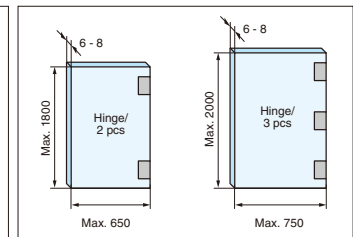
- Hexagon socket countersunk head screw M5 x 12
- Countersunk head screw M4 x 12
- Hex key (size: 3)

[Door Dimensions and Number of Hinges]

HES3D-G90BKT

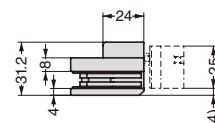
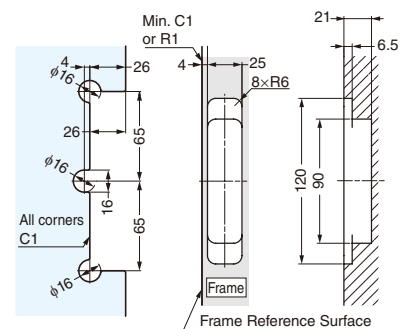


HES3D-G120BKT

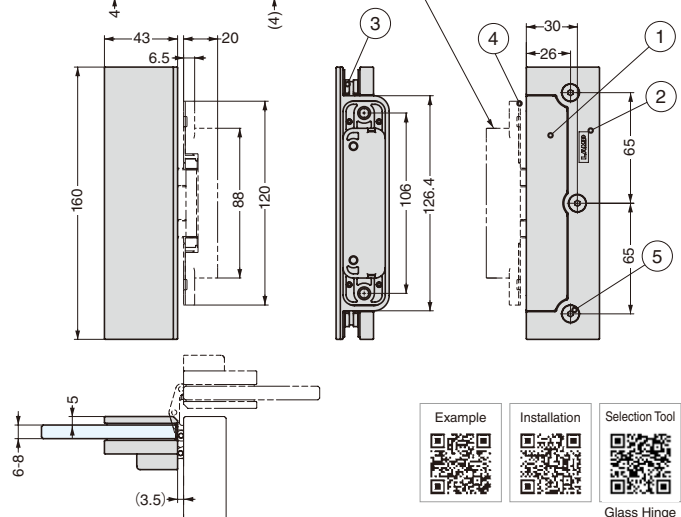


[HES3D-G120BKT]

[Cut Out Dimensions]



HES3D-120 Hinge (sold separately)



Glass Hinge

No.	Part Name	Material	Finish		
			CR	GP	BL
①	Body	Zinc Alloy (ZDC)	Chrome	24K Gold Plating	Black Enamel
②	Back Plate				
③	Gasket	Chloroprene Rubber (CR)	-	-	-
④	Screw Cover	ABS	Chrome	24K Gold Plating	Black Paint
⑤	Hexagon Socket Countersunk Head Screw M5 x 14	Steel			

RcHS	CAD	Item Code	Item Name	Colour	Glass Thickness	Box (pcs)	Carton (pcs)
●	●	170-043-469	HES3D-G120BKT-CR	Silver	6-8	2	12
●	●	170-043-470	HES3D-G120BKT-GP	Gold		2	12
●	●	170-043-471	HES3D-G120BKT-BL	Black		2	12

*Screw cover is not included for BL (black). Use the screw cover included with the concealed hinge.

Required Opening Clearance for HES Hinges

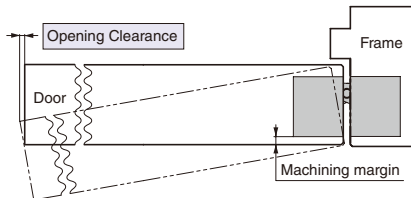
About Opening Clearance

Opening clearance is the gap between the frame and door required for door operation.

The HES hinges require it on the door's leading edge, and the required space varies depending on the door thickness (DT).

*The value does not consider changes over time. Please use this guide or referential purposes

HES3D



●HES3D-W190 (P.29)

Door Thickness	Machining Margin	Opening Clearance				
		DT 600	DT 700	DT 800	DT 850	DT 915
42	3	1.4	1.2	1.0	1.0	0.9
50	4	1.9	1.6	1.4	1.3	1.2
60	4	2.7	2.3	2.1	1.9	1.8
70	4	3.8	3.2	2.8	2.6	2.5
80	4	5.0	4.3	3.7	3.5	3.3

●HES3D-V135LGR (P.23)

Door Thickness	Machining Margin	Opening Clearance				
		DT 600	DT 700	DT 800	DT 850	DT 900
30	4	0.3	0.3	0.2	0.2	0.2
33	4	0.4	0.4	0.3	0.3	0.3
36	4	0.6	0.5	0.4	0.4	0.4
40	4	0.7	0.6	0.6	0.5	0.5
50	4	1.3	1.1	1	0.9	0.9

●HES3D-E190 (P.26)

Door Thickness	Machining Margin	Opening Clearance				
		DT 600	DT 700	DT 800	DT 850	DT 900
38	3	1.0	0.9	0.7	0.7	0.7
50	4	1.8	1.5	1.3	1.2	1.2
60	4	2.6	2.2	2.0	1.8	1.7
70	4	3.6	3.1	2.7	2.5	2.4
80	4	4.8	4.1	3.6	3.4	3.2

●HES3D-120 (P.20)

●HES3D-120-A100 (P.21)

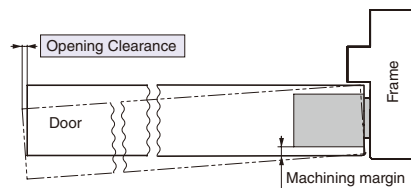
●HES3D-H120-36 (P.22)

Door Thickness	Machining Margin	Opening Clearance				
		DT 600	DT 700	DT 800	DT 850	DT 900
29	3	0.6	0.5	0.4	0.4	0.4
33	4	0.7	0.6	0.5	0.5	0.5
36	4	0.9	0.7	0.6	0.6	0.6
40	4	1.1	0.9	0.8	0.8	0.7
50	4	1.8	1.5	1.3	1.3	1.2

●HES3D-E160 (P.24)

Door Thickness	Machining Margin	Opening Clearance				
		DT 600	DT 700	DT 800	DT 850	DT 900
36	3	0.9	0.8	0.7	0.6	0.6
40	4	1.0	0.9	0.8	0.7	0.7
50	4	1.7	1.5	1.3	1.2	1.2

HES2S



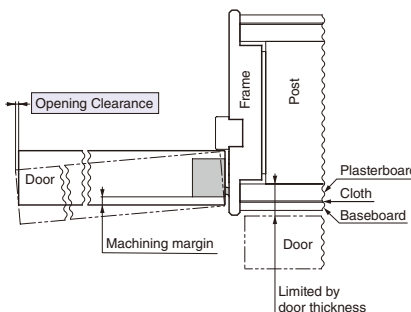
●HES2S-140-A125 (P.33)

Door Thickness	Machining Margin	Opening Clearance				
		DT 600	DT 700	DT 800	DT 850	DT 900
38	4	0.8	0.6	0.6	0.5	0.5
40	5	0.8	0.7	0.6	0.6	0.5
50	5	1.4	1.2	1.1	1.0	0.9

●HES2S-150-A110 (P.34)

Door Thickness	Machining Margin	Opening Clearance				
		DT 600	DT 700	DT 800	DT 850	DT 900
35	4	0.6	0.5	0.4	0.4	0.4
36	4.5	0.6	0.5	0.5	0.4	0.4
40	4.5	0.8	0.7	0.6	0.5	0.5

HES1F



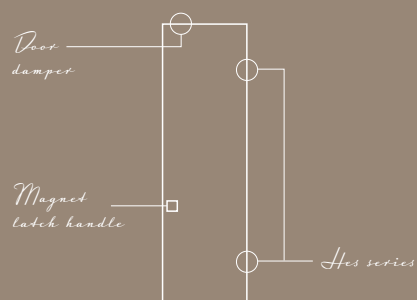
●HES1F-140 (P.15)

Door Thickness	Machining Margin	Opening Clearance					Baseboard (reference)
		DT 600	DT 700	DT 800	DT 850	DT 900	
36	4	1.5	1.3	1.1	1.0	1.0	Max. 9
40	6	1.6	1.4	1.2	1.1	1.1	Max. 9
45	8.5	1.8	1.5	1.3	1.3	1.2	Max. 7
50	11	2.0	1.7	1.5	1.4	1.3	Max. 4.5

* The values are calculated with the assumption that the mortise is positioned at the centre of the door, considering that the machining margin for the door should be 13 or less.

* When using the hinge on thick doors, the baseboard thickness may be limited.

Options



LAMP DOOR DAMPER LDD-V Concealed type

 Latest
Info


Passed Private 100K Cycle Test

Soft-close



- Concealed type that is hidden from view when door is closed.
- Self and soft-closes within a 10° radius of closing. Closes gently, preventing slamming.
- Doors feel lighter to open compared to standard door closers.
- Closing speed adjustable post-installation.
- Counter plate has 3-way adjustment post-installation.
- 2011 Good Design Award Winner
- Recommended Door Specifications:
Thickness : Min. 33 mm
Width : Max. 900 mm
Weight : 15 - 40 kg
- For doors 40-100 kg, please use LDD-V100. Surface mount without mortise type LDD-S also available.
- Recommended hinge: HES series (P.13-39)
- Adjustment Jig LDD-V-JIG & Template LDD-V-TMP available (P.42).

Right-handed

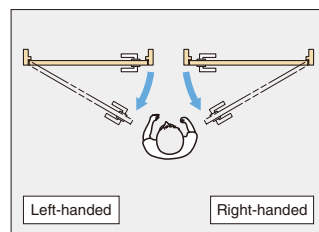
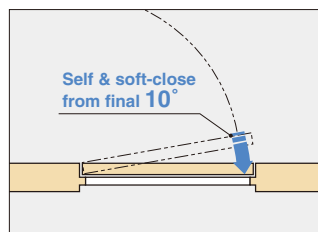


INSTRUCTION

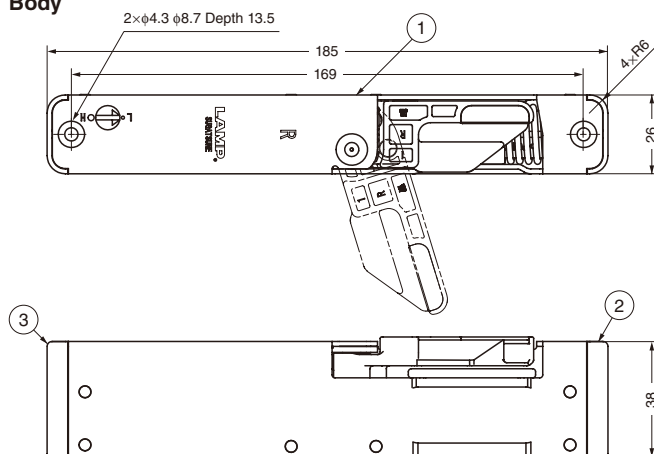
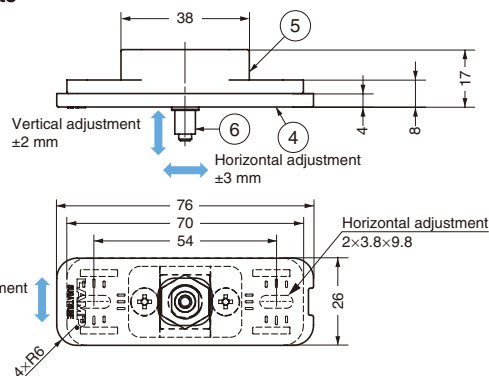
SCREW

Parts Included

- Binding head tapping screw 4x45
- Binding head tapping screw 3.5x15



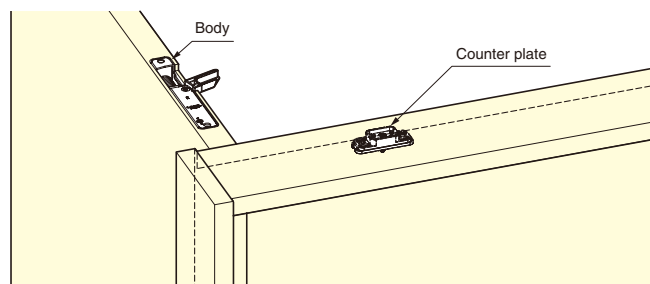
Right-handed type shown.

Body

Counter Plate

Body Grey cover included

RoHS	CAD	Item Code	Item Name	Type	Door Width	Door Thickness	Door Weight	Weight	Carton
●	●	270-017-563	LDD-V-R	Right-handed	Max. 900	Min. 33	15 - 40 kg	427 g	24 pcs
●	●	270-017-564	LDD-V-L	Left-handed	Max. 900	Min. 33	15 - 40 kg	427 g	24 pcs

Installation

*Below drawing shows right-handed.



No.	Part Name	Material	Finish/Colour
①	Body Case	Steel (SPCC)	Clear Zinc Chromate
②	Spring Base	Polyacetal (POM)	Grey
③	Damper Base	Polyacetal (POM)	Grey
④	Counter Plate Cover	Polyacetal (POM)	Grey
⑤	Counter Plate Case	Polyacetal (POM)	Grey
⑥	Counter Plate Shaft	Steel (SUM)	Nickel

White Cover Optional

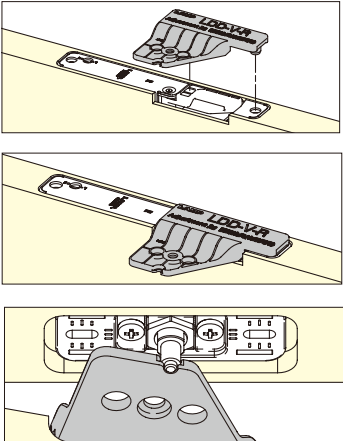
RoHS	CAD	Item Code	Item Name	Material	Colour
-	-	270-054-108	LDD-V-COVER-WT	POM	White



LAMP. ADJUSTMENT JIG FOR COUNTER PLATE OF LDD-V LDD-V-JIG



- Easy to adjust position of counter plate.



LDD-V (Sold separately)

RoHS	CAD	Item Code	Item Name	Material	Weight	Carton
●	●	270-025-276	LDD-V-R-JIG	ABS	11 g	1000 pcs
●	●	270-025-275	LDD-V-L-JIG	ABS	11 g	1000 pcs

LAMP. TEMPLATE FOR LDD-V LDD-V-TMP

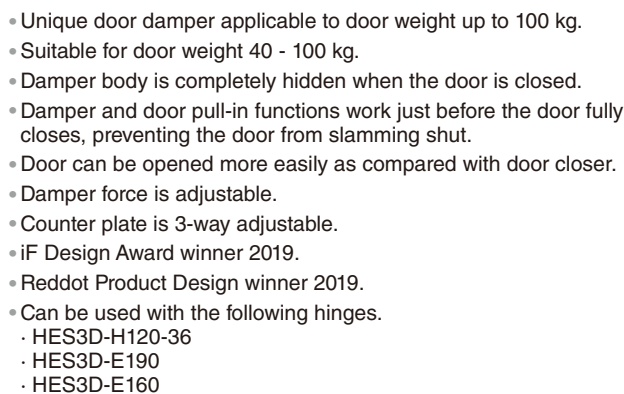


- Easy to make mortise on wood door and frame.
- Possible to use repeatedly.
- Two templates included: for door & frame.

Remarks

- Recommended working tool is a straight bit with guide bearings of which guide diameter and bit diameter are the same.

RoHS	CAD	Item Code	Item Name	Material	Colour
-	-	270-024-568	LDD-V-TMP	Methacrylic Resin (PMMA)	Clear

[illegible]

Technical drawings of the 100mm x 100mm x 25mm base plate. The top view shows a 100mm x 100mm plate with a 40mm wide top flange, a 76mm wide central section, and a 66mm wide bottom section. It features four Ø8.4 holes (2x Ø4.2, 2x Ø8.4) and two 4.2 x 14.2 oval holes (8.4 x 18.4). The side view shows a 25mm thick plate with a 10mm wide top flange and a 10mm wide bottom flange. The bottom view shows a 100mm x 100mm plate with a 76mm wide central section and a 66mm wide bottom section. The drawings indicate horizontal adjustment of ± 5 mm and vertical adjustment of -4 mm.

Self & soft-close from final 15°!

Free

Door closes slowly!

Right-handed type shown. Left-handed type is symmetrical.

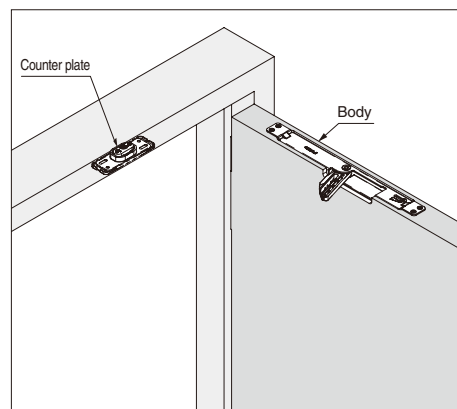
Door hinges is on the left (as seen from door opening side).

Left-handed

Door hinges is on the right (as seen from door opening side).

Right-handed

Installation

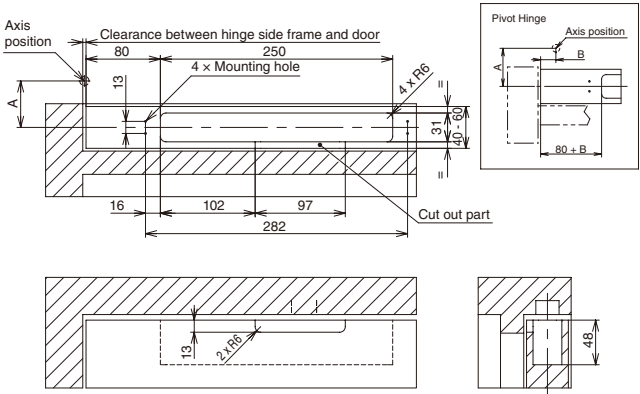


No.	Part Name	Material	Finish / Colour
①	Case	Steel (SPCC)	Nickel
②	Damper Base	POM	Grey
③	Spring Base	POM	Grey
④	Arm Cover	POM	Grey
⑤	Arm	Zinc Alloy (ZDC)	Nickel
⑥	Counter Plate Cover	ABS	Dark Brown/Nickel
⑦	Counter Plate Base	Zinc Alloy (ZDC)	–
⑧	Counter Plate Shaft	Steel (SUM)	Nickel

2024-10-03 時点の情報です

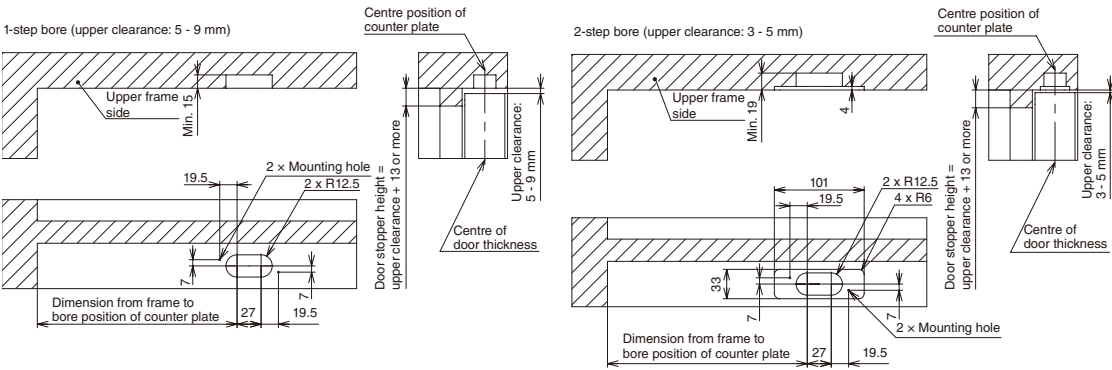
Cut Out Dimensions for Door

LDD-V100-R (right-handed) shown. LDD-V100-L (left-handed) is symmetrical.



Cut Out Dimensions for Frame

LDD-V100-R (right-handed) shown. LDD-V100-L (left-handed) is symmetrical.



Dimension from frame to bore position of counter plate (mm)

Door Hinge	Clearance Between Hinge Side Frame and Door (mm)				
	1	2	3	4	5
HES3D-160, E190	217	218	219	220	221
Butt Hinge	A=20 - 35	220	221	222	223
	A=35 - 50	223	224	225	226
Pivot Hinge	A=20 - 35	220 + B	221 + B	222 + B	223 + B
	A=35 - 50	223 + B	224 + B	225 + B	226 + B

*If clearance between hinge side frame and door is beyond the range in the table above, calculate as per the table below.

Door Hinge	Dimension from Frame to Bore Position of Counter Plate (mm)
HES3D-160, E190	216 + Clearance Between Hinge Side Frame and Door
Butt Hinge	A=20 - 35 219 + Clearance Between Hinge Side Frame and Door
	A=35 - 50 222 + Clearance Between Hinge Side Frame and Door
Pivot Hinge	A=20 - 35 219 + B + Clearance Between Hinge Side Frame and Door
	A=35 - 50 222 + B + Clearance Between Hinge Side Frame and Door

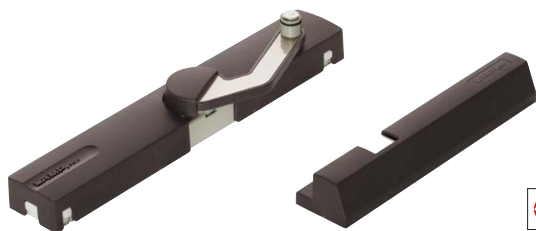
* Refer to for 3-way adjustable concealed hinge HES3D.

 Safety Cautions

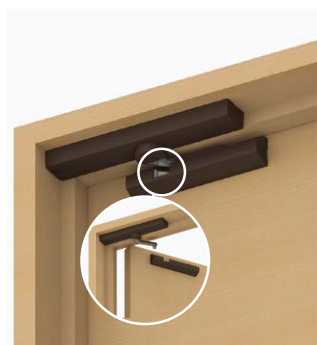
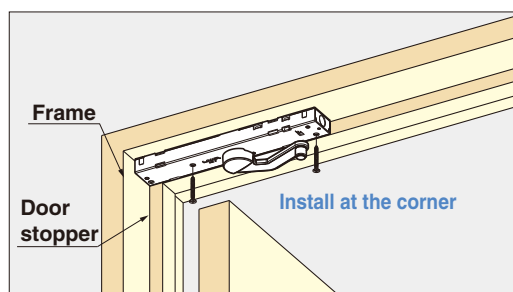
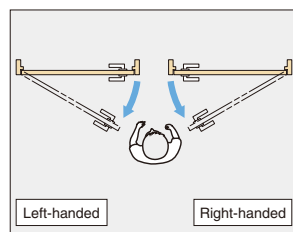
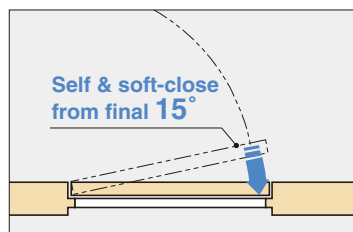
- Do not drop or give strong impact to this product.
- This product can not resist strong wind. Do not use it under strong wind, or the damper effect will decrease.
- If you close the door with excessive force, the damper effect may decrease.
- The door may not close enough depending on the case lock used.
- This product is designed for interior use. Do not use it outdoors.
- Do not use it at places subject to moisture and water.
- At the entrance of highly airtight room, the door closing speed and damper force may change, and the door may not close enough.
- The closing speed varies depending on the use environment (temperature, wind and hinges used on the door, etc.). Operating temperature: 0°C - 40°C
- Do not apply a load in the vertical direction or excessive force to pull-in arm. Otherwise, it may be damaged.
- Please install and adjust this product after adjusting the door hinges.
- Please use the door hinges within the adaptive door weight range of this product.
- Please install this product horizontally. Otherwise, it may not operate properly.
- After vertical adjustment of counter plate, tighten the fixing nut firmly.
- This product is supplied with installation instruction. Be sure to read before installation or use.
- Regularly check for looseness or dropout of screws during use.

LAMP DOOR DAMPER LDD-S Surface mount type

 Latest
Info

 Passed Private 100K Cycle Test
Soft-close


Right-handed shown.


 THICKNESS:
ONLY 20 mm!

Available Colours


White



Light Grey



Light Brown



Dark Brown

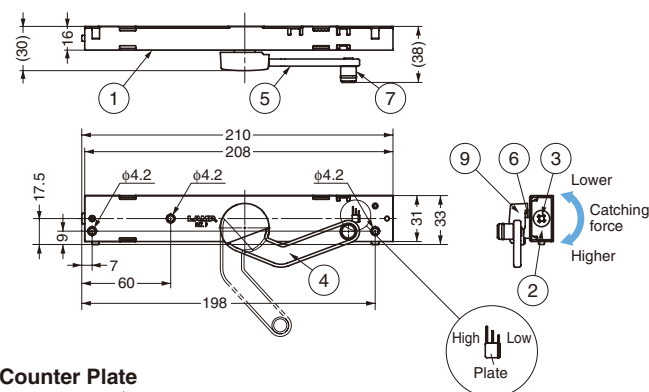
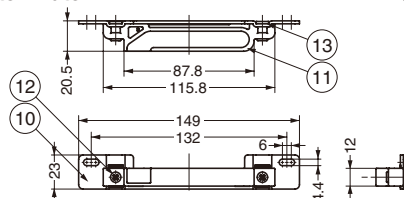
- Surface mount that can be retrofitted onto current door installations.
- Easy to align to proper positioning, speeding up installation.
- Slim profile (body height only 16 mm) can handle doors up to 40 kg in weight.
- Self and soft-closes within a 15° radius of closing. Closes gently, preventing slamming.
- Doors feel lighter to open compared to standard door closers.
- Counter plate position can be adjusted after installation.
- Damper force can be adjusted post-installation.
- Recommended Door Specifications:
Width : Max. 900 mm
Weight : 15 - 40 kg
- Available in 4 colours to match your door: White (WT), Light Grey (LGR), Light Brown (LBR) or Dark Brown (DBR).
- Recommended hinge: HES series (P.13-39)

INSTRUCTION
SCREW
Parts Included

- Countersunk head tapping screw 3.5×30
- Binding head tapping screw 4×16

Feature

Installation

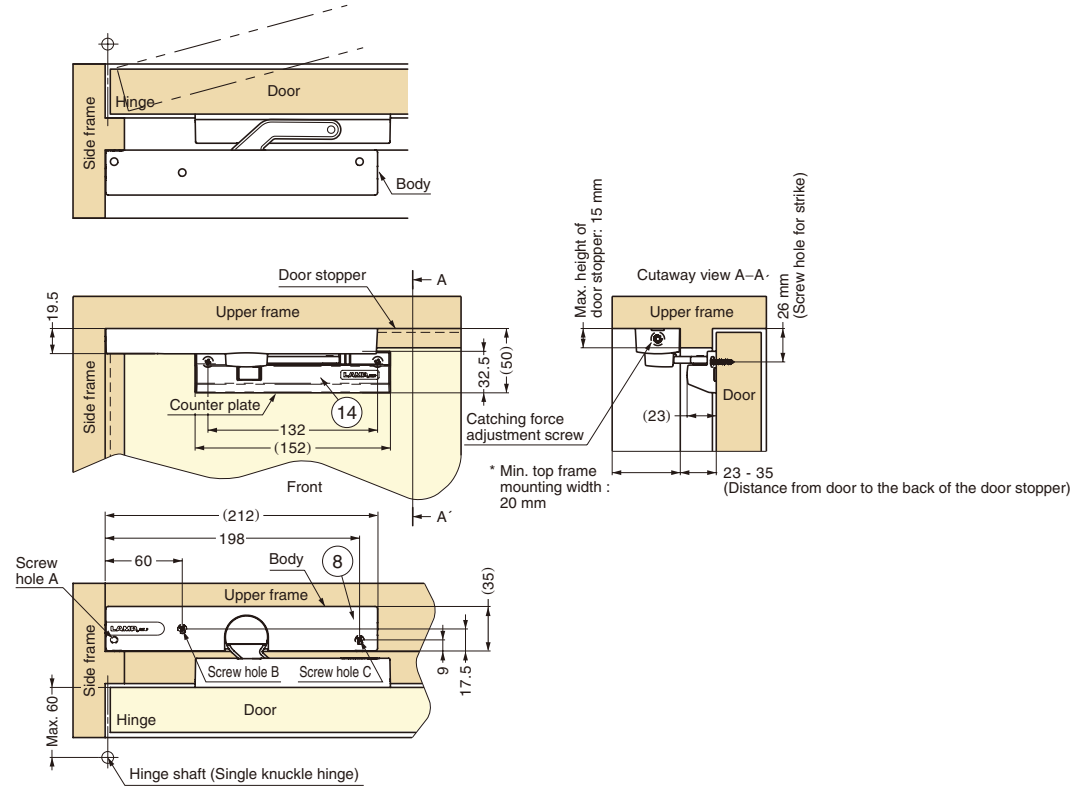
Body

Counter Plate


Right-handed shown.

No.	Part Name	Material	Finish/Colour
①	Case	Steel (SGCC)	Chromate
②	Block	Polyacetal (POM)	Natural
③	Catching Force Adjustment Screw	Steel	Chromate
④	Arm	Stainless Steel (SUS304)	Plain
⑤	Arm Spacer	Polyacetal (POM)	(As Left)
⑥	Arm Axis	Zinc Alloy (ZDC)	Chromate
⑦	Roller	Polyacetal (POM)	Grey
⑧	Body Cover	ABS	(As Left)
⑨	Arm Cover	ABS	(As Left)
⑩	Counter Plate	Steel (SPCC)	Chromate
⑪	Guide	Zinc Alloy (ZDC)	Chromate
⑫	Screw	Steel (SWCH)	Nickel
⑬	Nut	Steel (SPCC)	Nickel
⑭	Counter Plate Cover	ABS	(As Left)

RoHS	CAD	Item Code	Item Name	Colour	Type	Door Width	Door Weight	Weight	Carton
●	●	270-018-984	LDD-S-RWT	White	Right-handed	Max. 900	15 - 40 kg	550 g	20 pcs
●	●	270-018-985	LDD-S-LWT	White	Left-handed			550 g	20 pcs
●	●	270-018-986	LDD-S-RLGR	Light Grey	Right-handed			550 g	20 pcs
●	●	270-018-987	LDD-S-LLGR	Light Grey	Left-handed			550 g	20 pcs
●	●	270-018-988	LDD-S-RLBR	Light Brown	Right-handed			550 g	20 pcs
●	●	270-018-989	LDD-S-LLBR	Light Brown	Left-handed			550 g	20 pcs
●	●	270-018-990	LDD-S-RDBR	Dark Brown	Right-handed			550 g	20 pcs
●	●	270-018-991	LDD-S-LDBR	Dark Brown	Left-handed			550 g	20 pcs

Installation



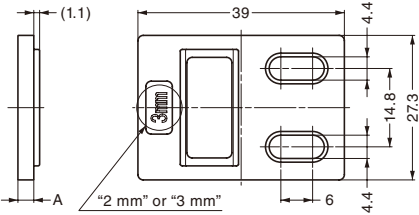
*When the distance from door to the back of the door stopper is 20 mm - 25 mm, please use the screw hole A and C.

LAMP SPACER FOR LDD-S LDD-S-P

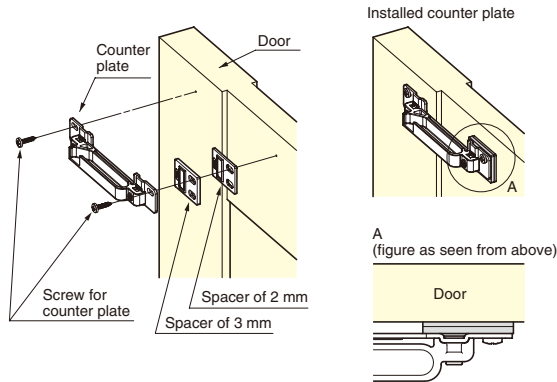
Latest Info



- Two types available: 2 mm thickness and 3 mm thickness.
- Can be used for Max. 6 mm thickness gap.

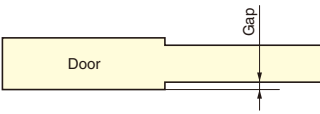


Installation
(In case of 5 mm thickness gap)



Remarks Before Installation

Check the gap of the door surface and choose the suitable spacer (combination of spacers).



Part Name	Material	Colour
Body	ABS	Black

RoHS	CAD	Item Code	Item Name	A	Weight	Box	Carton
●	●	270-021-019	LDD-S-P2 BL	2	2 g	100 pcs	1000 pcs
●	●	270-021-020	LDD-S-P3 BL	3	3 g	100 pcs	1000 pcs

MAGNETIC LATCH HANDLE **MLH** Flat / Round **NEW**

 Latest
Info


Case lock

Handle



Cover

Conceals the drilled hole inside the handle

- Flat latch handle with mortise lock case.
- The handle does not protrude when the door is closed.
- **The magnet allows for automatic and smooth latching.**
- The plastic coating on the latch **reduces metallic linking noise.**
- Recommended to use together with the HES3D and HES2S-140-A125 hinge.

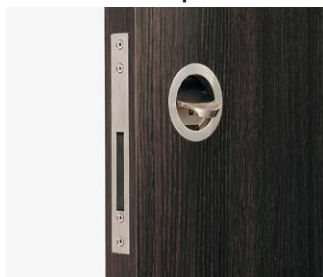
INSTRUCTION

SCREW

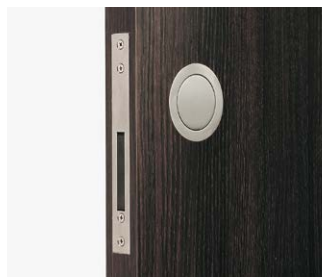
Parts Included

- Cover
- Stainless steel cross-recessed tapping screws, ST 4.2 × 25 (4)
- Stainless steel cross-recessed small screws, M4 × 16 (2) (for door thicknesses 35–39 [32–36] mm)
- Stainless steel cross-recessed small screws, M4 × 20 (2) (for door thicknesses 40–45 [37–42] mm)
- (Note: Values in brackets are for surfaces with handles)

Installation Examples

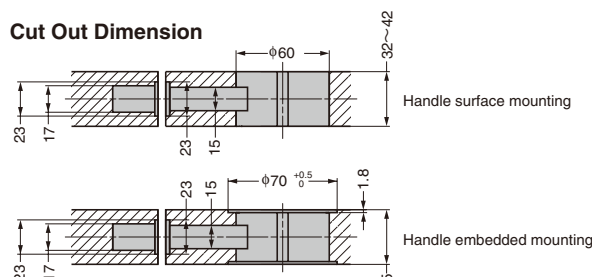


When using the handle

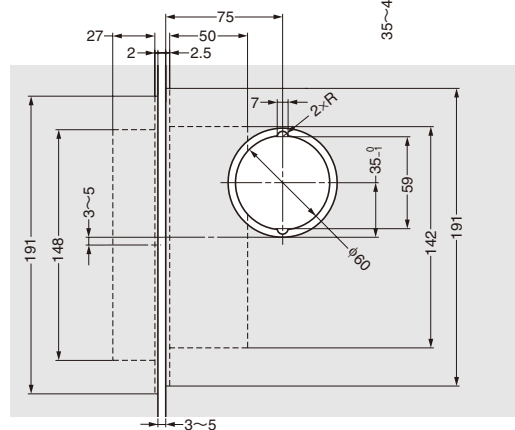
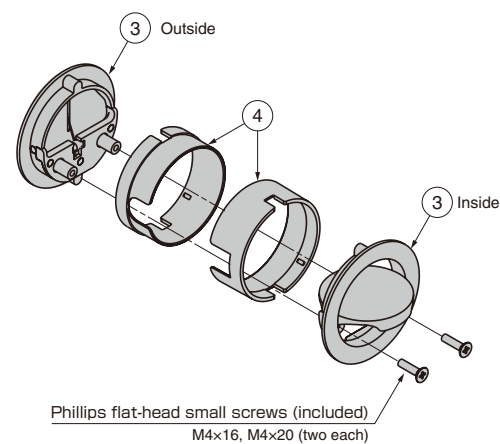


When the handle is retracted

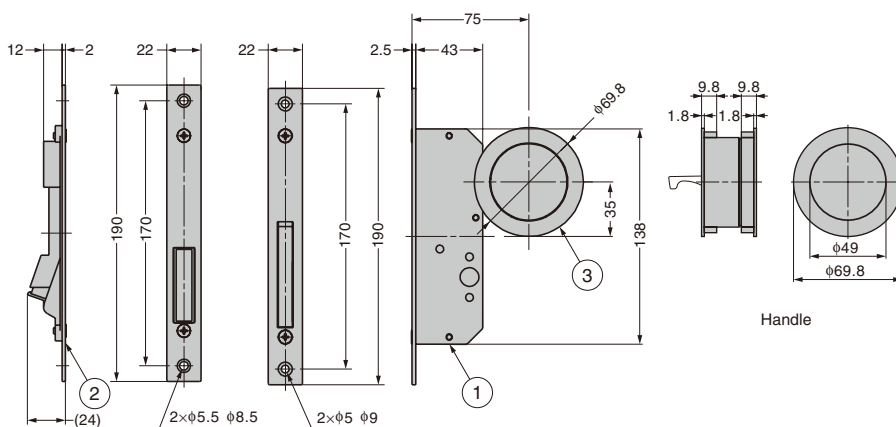
Cut Out Dimension



Handle ③ and Cover ④ (Non-handed)



Feature

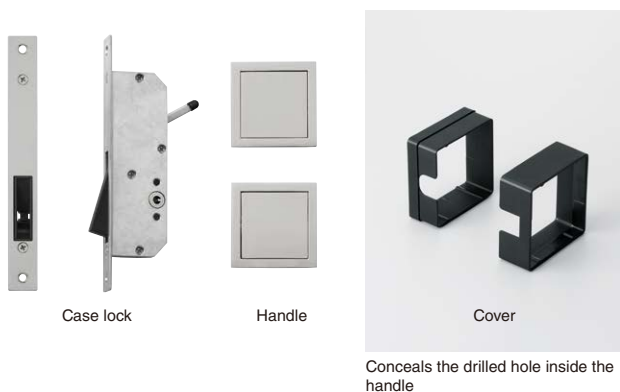


Handle + case lock set

RoHS	CAD	Item Code	Item Name	Weight (g)
—	●	260-024-534	MLH-SN	757

No.	Part Name	Material	Finish/Colour
①	Latch unit	Zinc alloy (ZDC)	—
②	Strike plate	Stainless steel (SUS304)	
③	Handle	Zinc alloy (ZDC)	Satin nickel finish
④	Cover	ABS plastic	Black

①–④ are included in the "Handle + case lock" set



- Flat latch handle with mortise lock case.
- The handle does not protrude when the door is closed.
- The magnet allows for automatic and smooth latching.
- The plastic coating on the latch reduces metallic clinking noise.
- Recommended to use together with the HES3D and HES2S-140-A125 hinge.

INSTRUCTION	SCREW
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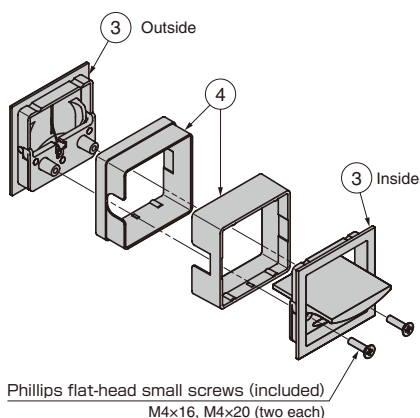
Parts Included

- Cover
 - Stainless steel cross-recessed tapping screws, ST 4.2 × 25 (4)
 - Stainless steel cross-recessed small screws, M4 × 16 (2)
(for door thicknesses 35–39 [32–36] mm)
 - Stainless steel cross-recessed small screws, M4 × 20 (2)
(for door thicknesses 40–45 [37–42] mm)
- (Note: Values in brackets are for surfaces with handles)

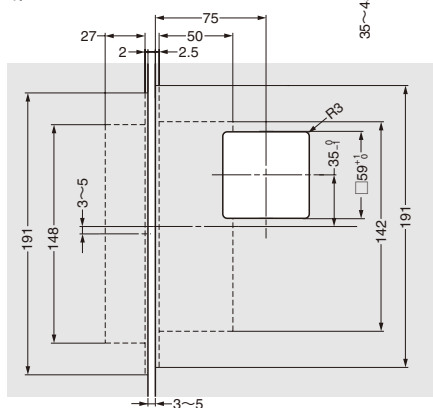
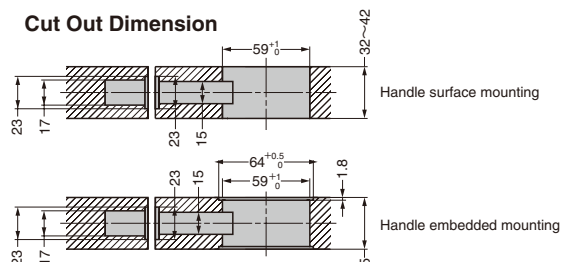
Installation Examples



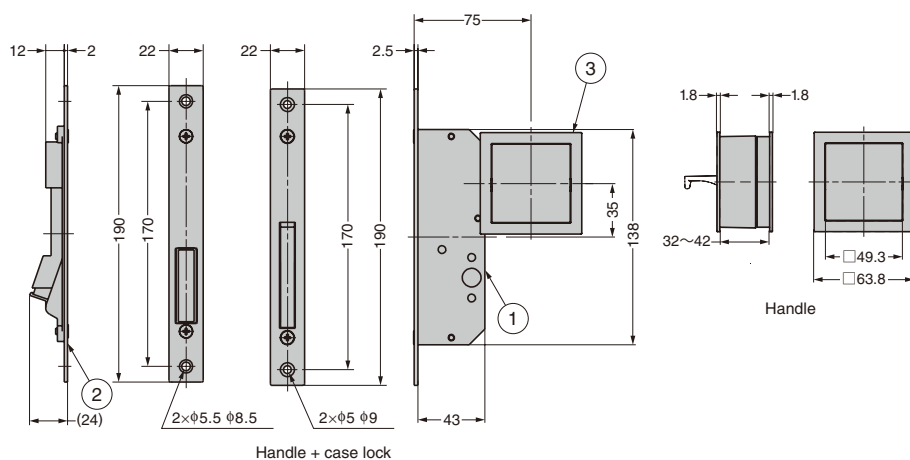
Handle ③ and Cover ④ (Non-handed)



Cut Out Dimension



Processing on the corner is also available with R3 (as shown on the left).



Handle + case lock set

RoHS	CAD	Item Code	Item Name	Weight (g)
—		260-028-998	MLHS-SN	770

No.	Part Name	Material	Finish/Colour
①	Latch unit	Zinc alloy (ZDC)	—
②	Strike plate	Stainless steel (SUS304)	
③	Handle	Zinc alloy (ZDC)	Satin nickel finish
④	Cover	ABS plastic	Black

①-④ are included in the "Handle + case lock" set

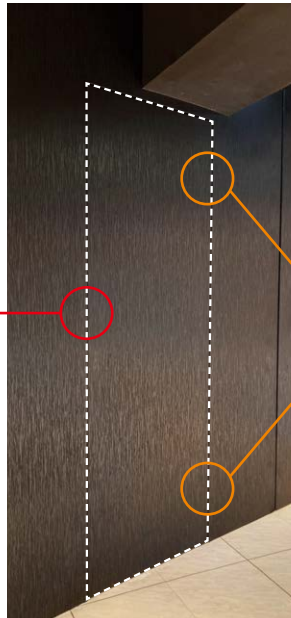


Handleless and Hinge-Invisible Door

LAMP[®]

Metal Magnetic Touch Latch ML-ZN80

The push-to-open latch needs no handle on doors.

LAMP[®]

Concealed Hinge HES

Hidden from view when closed.



Passed
Private 100K Cycle Test



- The body is made of metal for high durability.
- Designed for use on large doors due to its strong push force.
- Uses flame retardant plastic rated UL94V-0.
- The magnet part has an allowance of 1.5° on each side to catch the strike plate correctly. This helps the magnet to adjust even if there is a slight misalignment.
- The screws for the mounting plate are designed to be hidden from view.
- For overlay doors, please make sure there is correct clearance between the door and side board as shown in the drawings below.

SCREW

Application

- Walk-in closets, concealed doors.

Remarks

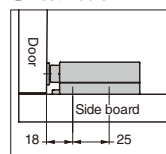
- The magnetic force may vary. Please confirm with actual products before use.
- Please install the body at the height where people are supposed to push.
- Please use hinges which do not have catch functions.

Parts Included

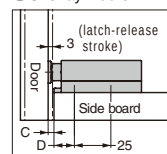
- Cross-recessed tapping screw M4 × 16
- Cross-recessed tapping screw M3 × 16

Installation

● Inset Doors



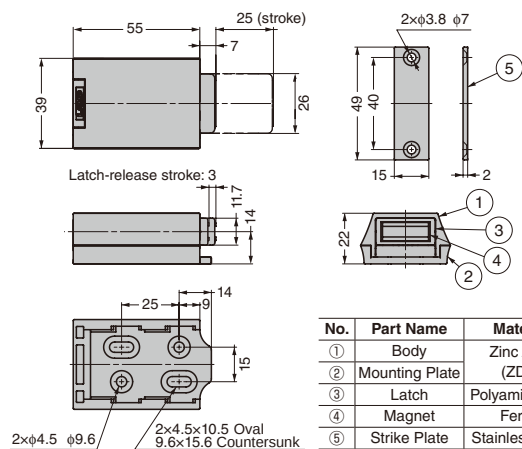
● Overlay Doors



Dimension

C (mm)	D (mm)
3	15
4	14

Please make sure there is the "C clearance" on the side board. It makes the installation easier to align the edge of the body to the edge of the side board.



No.	Part Name	Material	Finish/Colour
①	Body	Zinc Alloy (ZDC)	Enamel Finish
②	Mounting Plate		
③	Latch	Polyamide (PA)	-
④	Magnet	Ferrite	-
⑤	Strike Plate	Stainless Steel	Barrel Polished

RoHS	CAD	Item Code	Item Name	Colour	Magnetic Force		Push Force		Max. Door Specs (reference)			Weight (g)	Box (pcs)	Carton (pcs)
					N	kgf	N	kgf	Height (mm)	Width (mm)	Weight (kg)			
●	●	140-043-880	ML-ZN80BL	Black	29.4	3	49	5	2440	915	125	160	10	100
●	●	140-043-881	ML-ZN80WT	White									10	100
●	●	140-056-849	ML-ZN80BR	Brown									10	100

COLOUR CUSTOMIZATION FOR HES3D



Custom colours are available for the following models (min. 500 pcs required)

Available Models

- HES3D-70
- HES3D-90
- HES3D-120
- HES3D-E160
- HES3D-E190
- HES3D-W190

Please contact local representatives for details.

SELECTION TOOL FOR HES3D

Selection Tool for HES3D concealed hinges
LAMP HES3D 3-Way adjustable concealed hinge

Hinges selection will depend on door size and weight. This tool helps you really find the hinges suitable for your application. Please input your application data into the boxes below.
*This tool is to be used for estimation purpose only. Please test the assembly to confirmation before use.

Change unit ☐ mm / kg ☐ in / lb

Application ☐ All ☐ Interior door ☐ Furniture door ☒

Door size and weight

Weight kg
How to calculate the door weight

DH : Height mm
DW : Width mm
DZ : Thickness mm

Number of hinges / Mounting position

No. of hinges
H1 mm
H2 mm

H1 and H2 must be below:
- For interior door hinges: at least 50 mm (2 in)
- For HES3D-90 and HES3D-70: at least 35 mm (1.4 in)

Change unit Door specifications Number of hinges / Mounting position Result

1 result(s) found

HES3D-V135LGR Interior door
<Load Capacity> 55kg / 3pc
<Mounting Position> H5 : 132.5mm H6 : 132.5mm

[Product information](#)
[Catalogue](#)

Alternative hinges available if specifications are changed

HES3D-E190 Interior door
<Load Capacity> 125kg / 3pc
<There is some problem with the value below> Thickness

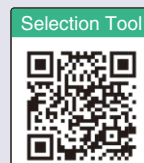
[Product information](#)
[Catalogue](#)

HES3D-W190 Interior door
<Load Capacity> 125kg / 3pc
<There is some problem with the value below> Thickness

[Product information](#)
[Catalogue](#)

HES3D-E160 Interior door
<Load Capacity> 70kg / 3pc
<There is some problem with the value below> Thickness

[Product information](#)
[Catalogue](#)





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| Website |



SUGATSUNE KOGYO CO.,LTD
Manufacturer of **LAMP** brand Products

