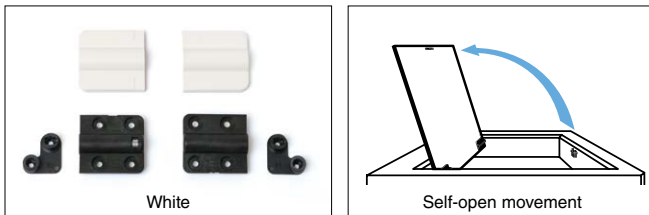


SELF-OPEN DAMPER HINGE



HG-JHS11



Self-open movement

Features

- Small damper hinge with self-opening function for top-opening lids. Using with a touch latch enables pop-up function of the lid.
- Inset type.
- Opening speed is adjustable with a hex key.
- Applicable into surface mount with Bracket UKZ11-BL (sold separately).
- Cover hides mounting screws for clean appearance.
- Easy to cut out with a router.

Specification

- Operation temperature: 0 – 40°C

Application

- Small covers for machine or wire manager, etc.

Remarks

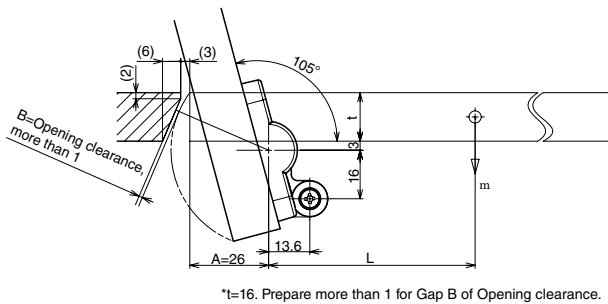
- Applicable moment of door: 0.25 – 0.4N·m. Use a pair/door.
- Install Spring unit on left side and damper unit for right side of the door.
- When installing, ensure that both hinge shafts are levelled and aligned.
- Please install with touch latch separately to keep the door closed.

Sold Separately

- Bracket for HG-JHS11 Surface Mount UKZ11-BL

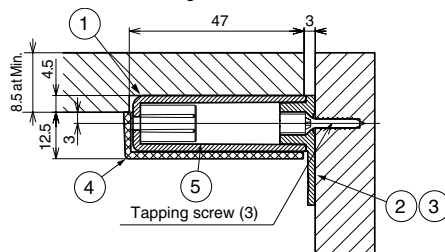
Recommended Screws

- Countersunk tapping screw3, bind tapping screw 4



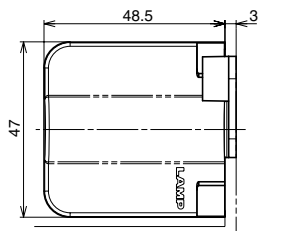
Installation

Cross-section Drawing



Top View

When closed door



Calculation of maximum door moment

$$T = m \times 9.80665 \times L$$

T:Max. door torque (N/mm)

m:Door weight (kg)

L:Distance from rotation centre to door centre of gravity (mm)

$$L = \frac{D}{2} - A \quad (\text{Formula for assuming that the centre of gravity is in the centre of door})$$

D:Door length (mm)

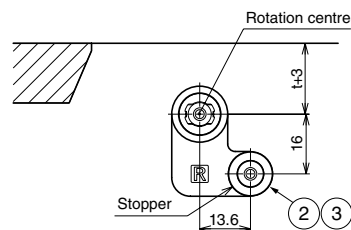
A:Bracket installation dimension (mm)

[Example] D=180 mm, A=26 mm, m=0.63kg

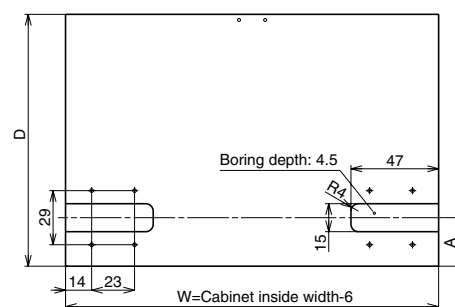
$$T = 0.63 \times 9.80665 \times \left(\frac{180}{2} - 26 \right) = 395 (\text{mN} \cdot \text{m}) \\ = 0.395 (\text{N} \cdot \text{m})$$

Installation

Bracket



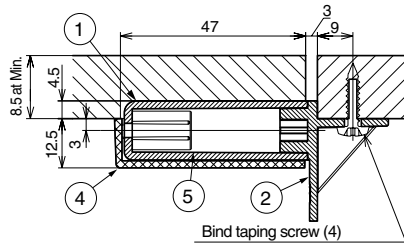
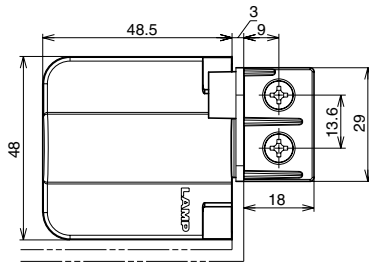
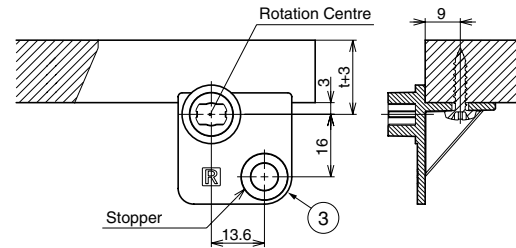
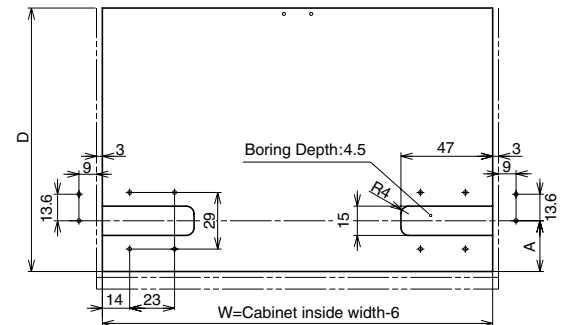
Cut Out Dimensions



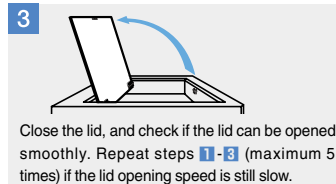
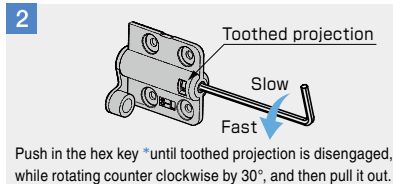
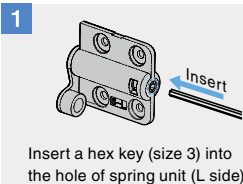
No.	Part Name	Material	Colour
①	Body	Polyacetal (POM)	Black
②	Bracket for side mount R	PBT	
③	Bracket for side mount L		
④	Cover	ABS	Black/White
⑤	Damper	-	-

Surface Mount Type

(Installed with Bracket for Surface Mount UKZ11-BL)

Cross-section Drawing**Top View****Installation****Bracket****Cut Out Dimensions**

No.	Part Name	Material	Colour
①	Body	Polyacetal (POM)	Black
②	Bracket for side mount R	PBT	
③	Bracket for side mount L		
④	Cover	ABS	Black / White
⑤	Damper	—	—

Adjustment of Lid Opening Speed**When increasing lid opening speed****When decreasing lid opening speed (returning to the speed before adjustment)**

Loosen the force following the hex key rotating clockwise.

*Make sure to rotate counter clockwise following pushing in the hex key and disengaging the projection. Forced rotation may cause damage.

Body

Sold by set.

RoHS	CAD	Item Code	Item Name	Colour	Torque N-m/pair	Torque kgf/pair	Opening Angle	Weight	Box	Carton
—	2030	170-041-214	HG-JHS11-2BL	Black	0.1 – 0.25	1.02 – 2.55	105°	56 g	12 set	50 set
—	2030	170-041-215	HG-JHS11-2WT	White					12 set	50 set
—	2030	170-041-216	HG-JHS11-4BL	Black	0.25 – 0.4	2.55 – 4.08			12 set	50 set
—	2030	170-041-217	HG-JHS11-4WT	White					12 set	50 set

**Bracket for Surface Mount**


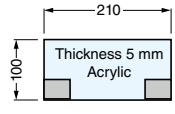

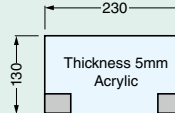

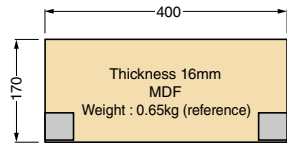

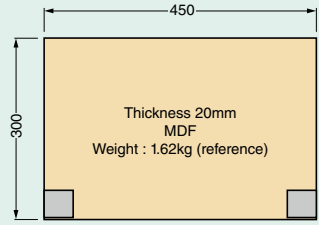
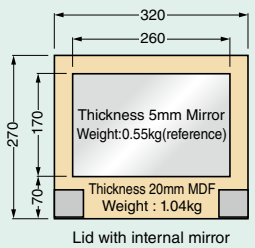

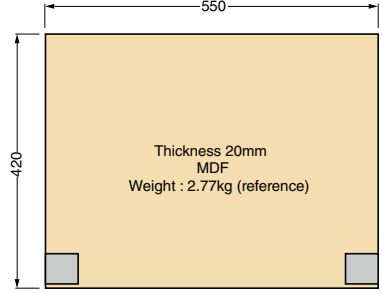
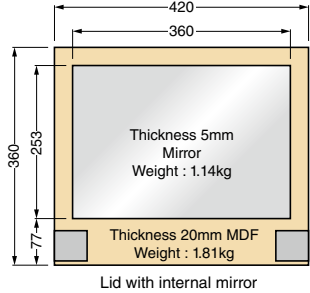

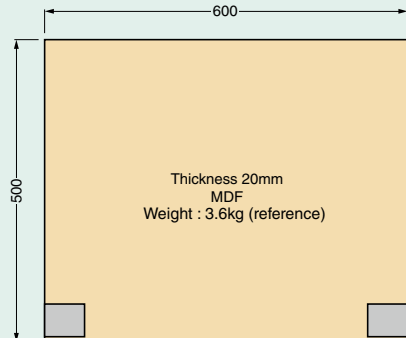
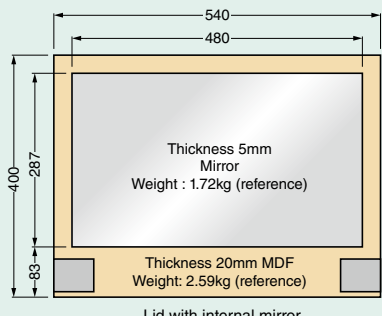

Sold by set.

RoHS	CAD	Item Code	Item Name	Colour	Weight	Box	Carton
G	2030	170-041-218	UKZ11-BL	Black	12 g	50 set	500 set

HG-JHM Damper hinges series - Supported lid digest

- This table gives a general guideline of the different lid weight and measurements that can be used with HG-JHM series.
- Lid measurements have been calculated using the maximum torque available for the product model. (for example, for HG-JHM16 series we used HG-JHM16-50)

- The lid measurements are just an example of the various possible combinations of length, width and thickness.
- The torque value is calculated using one pair of HG-JHM installed on one lid.

Model	Torque force	Lid size (example)
HG-JHM9-S4(U4) 1 	0.027 ~ 0.043 N · m (0.275 ~ 0.44 kgf · cm)	
HG-JHM9-S(U) 2 	0.054 ~ 0.086 N · m (0.55 ~ 0.88 kgf · cm)	
HG-JHM11 3 	0.05 ~ 0.4 N · m (0.51 ~ 4.08 kgf · cm)	
HG-JHM14 4 	0.5 ~ 2 N · m (5.1 ~ 20.4 kgf · cm)	 
HG-JHM16 5 	2 ~ 5 N · m (20.4 ~ 51 kgf · cm)	 
HG-JHM20 6 	6 ~ 8 N · m (61.2 ~ 81.6 kgf · cm)	 
HG-JHM20T 7 		

Refer to **1** : No.240 P.422, **2** : No.240 P.422, **3** : No.328 P.8, **4** : No.240 P.424, **5** : No.240 P.426, **6** : No.240 P.427, **7** : No.328 P.3

[How to calculate the maximum torque moment]

$$T = m \times 9.80665 \times L \times \frac{1}{1000}$$

T = Maximum moment of the lid

m = Lid weight [kg]

L = Distance from the rotation point to the centre of gravity of the lid (mm)
(In case the centre of gravity is situated in the middle of the lid)

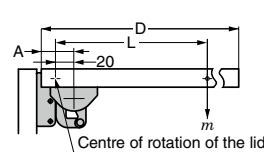
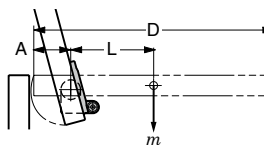
$$L = \frac{D}{2} - A \quad (\text{For HG-JHM20T, } L = \frac{D}{2} - A + 20)$$

D = Lid length [mm]

A = Distance from the rotation point to the back edge of the lid [mm]
(For HG-JHM20T, A : Installation measurements of the bracket)

Calculation example (for HG-JHM14)

$$\text{If } D = 180\text{mm}, A = 26\text{mm}, m = 0.96\text{kg} \dots T = 0.96 \times 9.80665 \times \left(\frac{180}{2} - 26\right) \times \frac{1}{1000} = 0.6 \text{ [N} \cdot \text{m]}$$

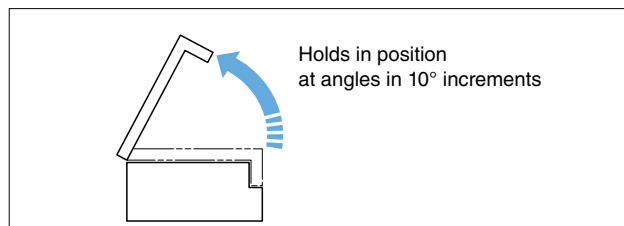
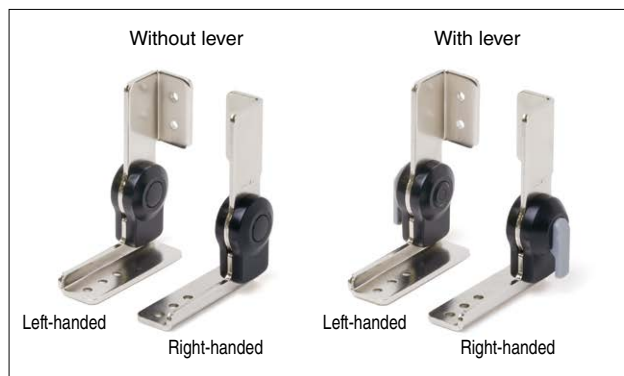


Material	Specific gravity
Acrylic	1.2
MDF	0.6
Mirror	2.5

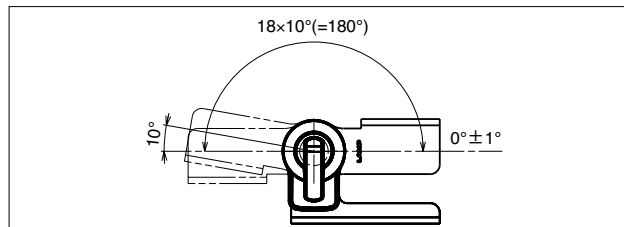
Model	A
HG-JHM9	18
HG-JHM11	26
HG-JHM14	26
HG-JHM16	32
HG-JHM20	36

Model	A
HG-JHM20T	36 ~ 38

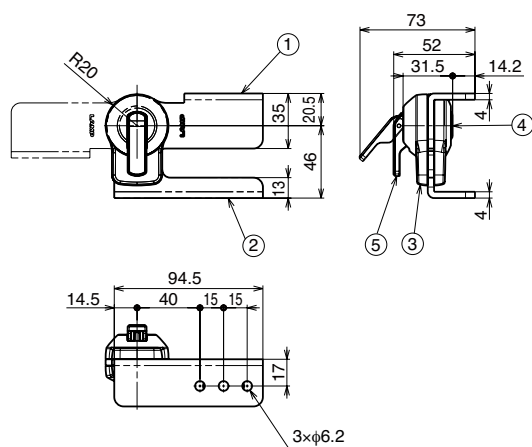
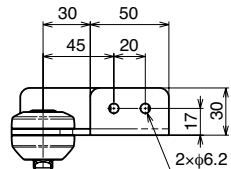
LAMP® MULTI ANGLE LOCKING HINGE HG-MA95A



[Locus chart]

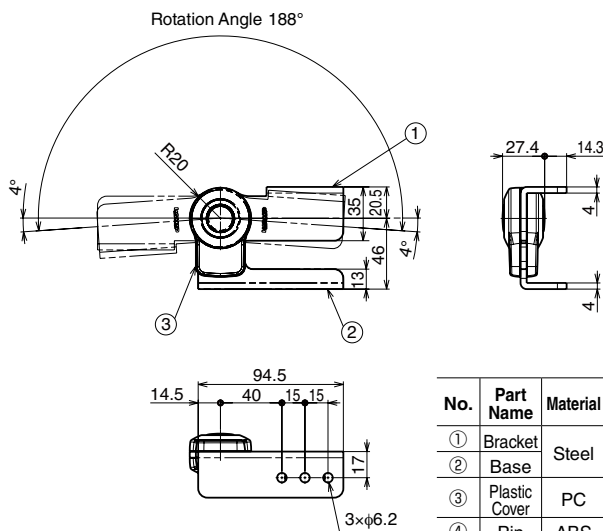
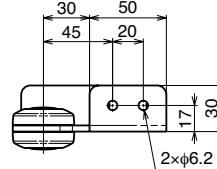


[HG-MA95A-L]











Left-handed shown. Right-handed is symmetrical.

[HG-MA95AF-L]



No.	Part Name	Material	Surface Finish
①	Bracket	Steel	Nickel
②	Base		
③	Plastic Cover	PC	—
④	Pin	ABS	
⑤	Lever	PA	—

RoHS	CAD	Item Code	Item Name	Position	Type	Max Torque N.m / pc	Max Torque kgf.cm/pc	Weight (g)	Box (pc)	Carton (pc)
		170-043-818	HG-MA95A-R	Right-handed	With lever	45	459	351.4	5	20
		170-043-819	HG-MA95A-L	Left-handed				351.4	5	20
		170-043-822	HG-MA95AF-R	Right-handed	Without lever	—	—	350.7	5	20
		170-043-823	HG-MA95AF-L	Left-handed				350.7	5	20


Refer to **1** : No.280 P.15

- Easily adjusts the flap angle by toggling the lever.
- Lock allows the hinge to be held in position from 0° to 180° in 10° increments.
- The flap is temporarily unlocked while the lever is pushed.
- The flap stays unlocked when the lever is lifted.
- Both hinge types can be used together.

[Applications]

- Medical equipment, analytical instruments, semiconductor equipment.

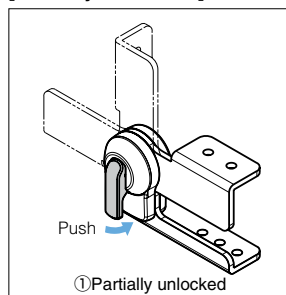
[Remarks]

- Be sure to read the “Cautions” .

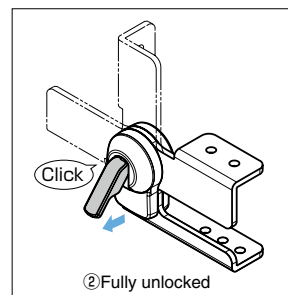
[Recommended screws]

- M5 screw

[Two ways to unlock]



The flap is temporarily unlocked while the lever is pushed.



The flap stays unlocked when the lever is lifted.

LAMP® MULTI ANGLE LOCKING HINGE HG-MA95B

- Easily adjusts the flap angle by toggling the lever.
- Lock allows the hinge to be held in position from 0° to 180° in 10° increments.
- The flap is temporarily unlocked while the lever is pushed.
- The flap stays unlocked when the lever is lifted.
- Both hinge types can be used together.

[Applications]

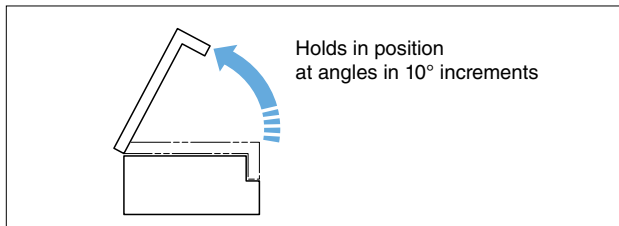
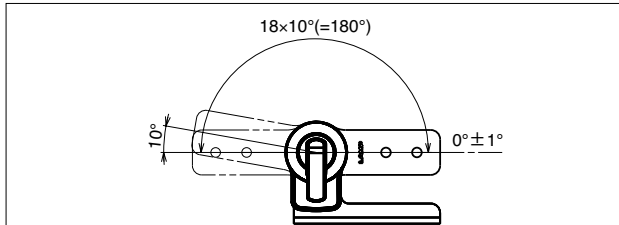
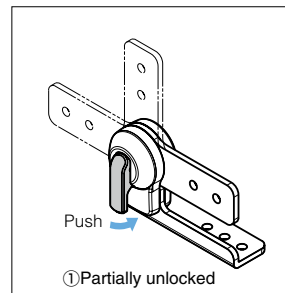
- Medical equipment, analytical instruments, semiconductor equipment.

[Remarks]

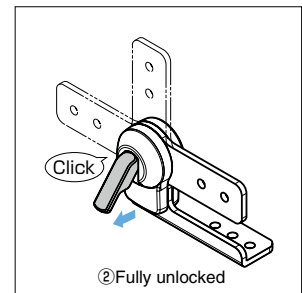
- Be sure to read the "Cautions" **1**.

[Recommended screws]

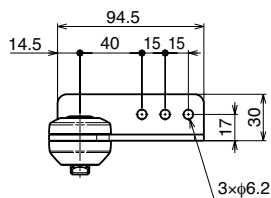
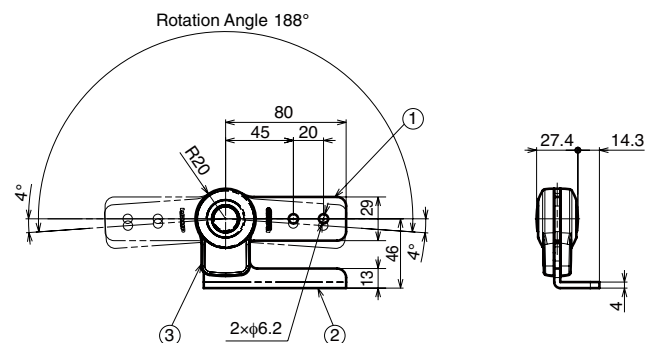
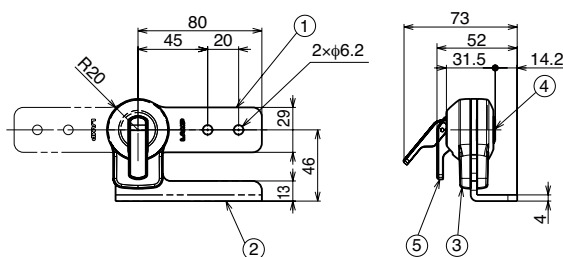
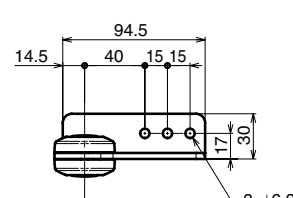
- M5 screw

**[Locus chart]****[Two ways to unlock]**

The flap is temporarily unlocked while the lever is pushed.



The flap stays unlocked when the lever is lifted.

[HG-MA95B-L]**[HG-MA95BF-L]**

No.	Part Name	Material	Surface Finish
①	Bracket	Steel	Nickel
②	Base	Steel	Nickel
③	Plastic Cover	PC	—
④	Pin	ABS	—
⑤	Lever	PA	—

Left-handed shown. Right-handed is symmetrical.

RoHS	CAD	Item Code	Item Name	Position	Type	Max Torque N·m / pc	Max Torque kgf·cm/pc	Weight (g)	Box (pc)	Carton (pc)
✓	3D	170-043-820	HG-MA95B-R	Right-handed	With lever	45	459	305	5	20
✓	3D	170-043-821	HG-MA95B-L	Left-handed				305	5	20
✓	3D	170-043-824	HG-MA95BF-R	Right-handed	Without lever	—	—	304.8	5	20
✓	3D	170-043-825	HG-MA95BF-L	Left-handed				304.8	5	20

Refer to **1** : No.280 P.15

TORQUE HINGE HG-TP



Free stop

Greaseless

Passed 20,000 open/
close private cycle test

*The picture may differ slightly from the actual product.

- A combination of plastic and metal is used for friction in order to prevent metallic dust caused by metal to metal contact.

[Specifications]

- Operating temperature: -10°C~40°C

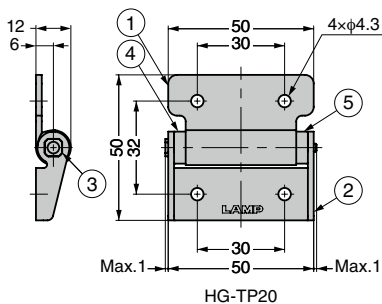
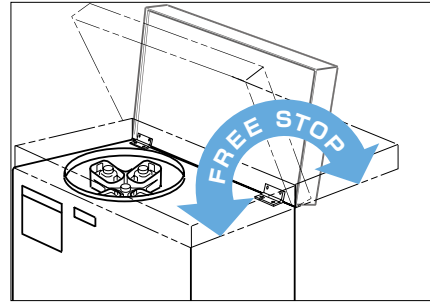
[Applications]

- Stereo equipment, FA equipment, and various automatic equipment

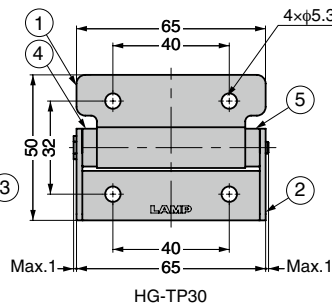
[Remarks]

- Be sure to read the "Cautions" 1.
- When installing, ensure that both hinge shafts are levelled and aligned.
- Install a lid to the bracket A.

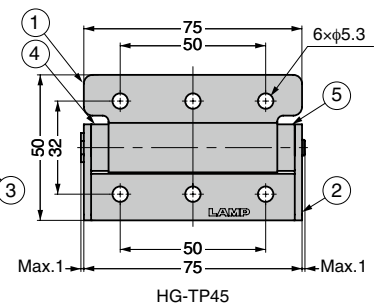
[Application Example]



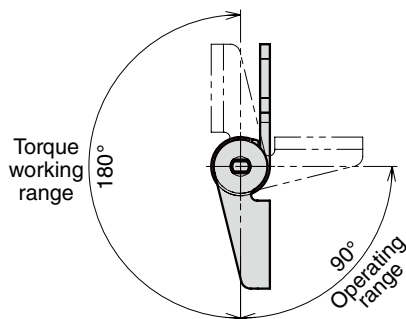
HG-TP20



HG-TP30



HG-TP45



No.	Part Name	Material	Finish / Colour
①	Bracket A	Stainless Steel (SUS304)	Barrel Polished
②	Bracket B		
③	Shaft	Stainless Steel (SUS303)	—
④	Plug	POM	Black
⑤	Washer		

Selection Tool
Sasuga-kun
 Applicable Products
 Used for Product
 Selection &
 Simulation.
 Available on Web!

RoHS	CAD	Item Code	Item Name	Torque N.m/pc	Torque kgf.cm/pc	Weight (g)	Box (pc)	Carton (pc)
		170-043-653	HG-TP20	2 ^{±25%}	20.3 ^{±25%}	60	50	200
		170-043-654	HG-TP30	3 ^{±25%}	30.5 ^{±25%}	90	25	100
		170-043-655	HG-TP45	4.5 ^{±25%}	45.8 ^{±25%}	150	25	100

Refer to 1 : No.280 P.15

STAINLESS STEEL HEAVY-DUTY BUTT HINGE HG-LSC210

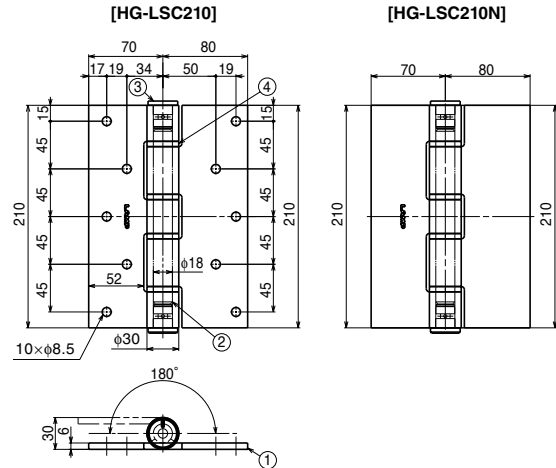
SUS



- 6mm thick stainless steel makes the hinge very strong.
- Made with special rings (oil-impregnated bearings) for smooth movement.
- Head caps hide shaft for clean appearance.

[Applications]

- Large doors, gate doors, and other heavy objects.



*Open/close test is under the following conditions:

- Hinge: Using three hinges vertically
- Door size: W900 × H2000
- Door weight: 250kg

No.	Part Name	Material	Finish
①	Body	Stainless Steel (SUS304)	Satin
②	Shaft		Plain
③	Head Cap		—
④	Ring		Plain

RoHS	CAD	Item Code	Item Name	Type	Load Capacity N / 2pcs	Load Capacity kgf / 2pcs	Weight (g)	Box (pc)	Carton (pcs)
		170-043-696	HG-LSC210	With screw holes	1960	200	2275	1	6
		170-043-697	HG-LSC210N	Without screw holes			2300	1	6

ANGLE-ADJUSTABLE DETENT HINGE HG-CHJ70

INSTRUCTION



HG-CHJ70WT



HG-CHJ70BL

- Intermediate holding position can be set at 3 angles: 45°, 90°, and 135°.
- Comes with covers to hide the mounting holes.

[Applications]

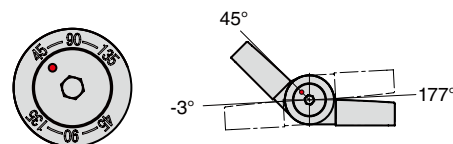
- Environmental test equipment, laboratory equipment.

[Remarks]

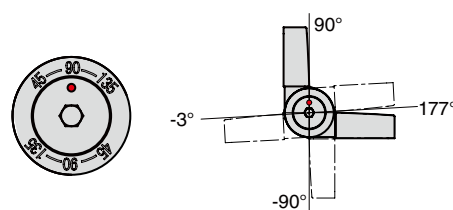
- Adjustment of detent angles must be done when the hinge is open.
- The retaining torque may vary.

[Available Detent Angles]

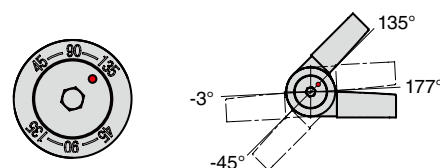
- 45°



- 90° (factory setting)



- 135°



[Without Covers]



[Application Example]

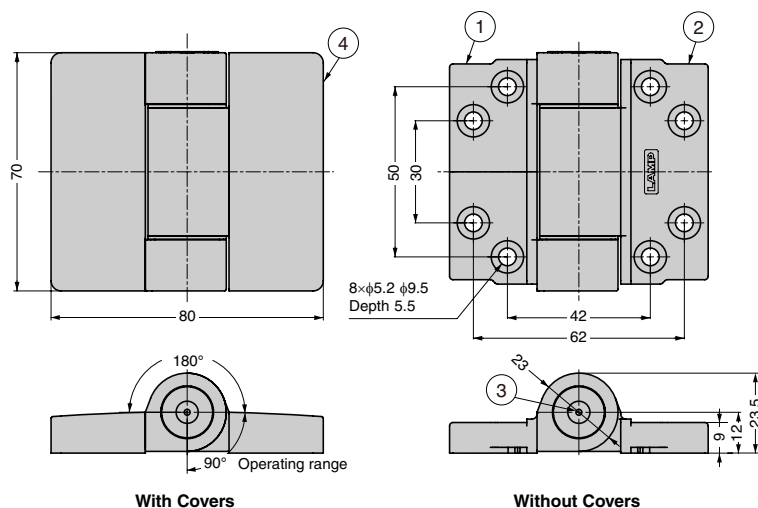


Detent angle: 45°

[Adjustment]



Simple adjustment with a hex key 4.



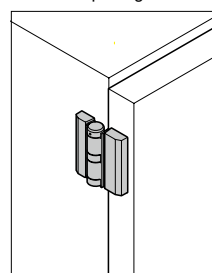
With Covers

Without Covers

No.	Part Name	Material
①	Fixed Bracket	POM
②	Movable Bracket	
③	Shaft	Stainless Steel
④	Cover	ABS

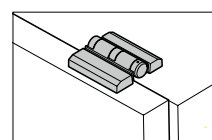
[Door Specs] When using two hinges

- Lateral opening

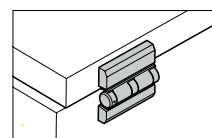


- Weight: Max. 8kg
- Width: Max. 500mm
- Height: Max. 1,000mm

- Upward opening



- Moment: Max. 1.7N·m
- Height: Max. 250mm



- Moment: Max. 2.4N·m
- Height: Max. 300mm

RoHS	CAD	Item Code	Item Name	Colour	Retaining Torque N·m / pc	Retaining Torque kgf·cm / pc	Weight (g)	Box (pcs)	Carton (pcs)
3D		170-043-659	HG-CHJ70BL	Black	2	20.4	115	10	80
3D		170-043-660	HG-CHJ70WT	White				10	80

BALANCE-ADJUSTABLE LIFT-ASSIST HINGE HG-PA300-15 OUTSIDE MOUNT

INSTRUCTION

SUS

VIDEO



- Easy to lift heavy top-opening lids due to spring tension (lift-assist).
- Balance adjustment allows for use in a wider range of lids than conventional lift-assist hinges.
- The built-in damper prevents lids from slamming shut (soft-close).
- Torque is adjustable by turning the adjustment screw ($\pm 10\%$).
- Comes with a plastic cover for clean appearance.

[Applications]

- Medical equipment, analytical instruments, semiconductor equipment.

[Remarks]

- Be sure to read the "Cautions" 1.

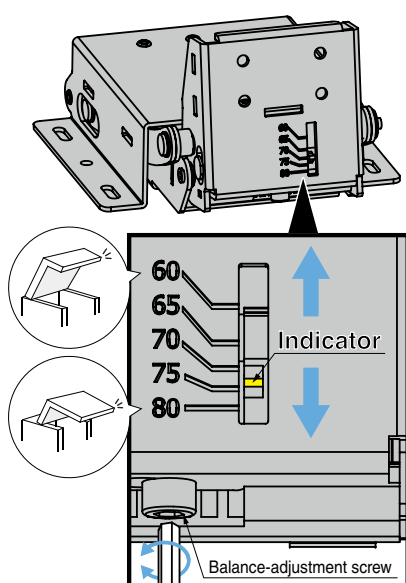
Video Link



Selection Tool
Sasuga-kun
Applicable Products

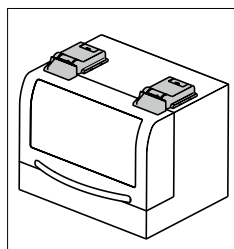
Used for Product
Selection &
Simulation.
Available online!

[Balance Adjustment]

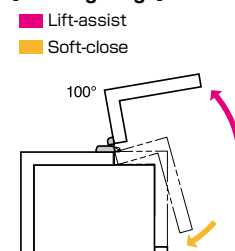


Angle of peak torque is adjustable with hex key 5.
This feature allows adjustment to the location of center of gravity

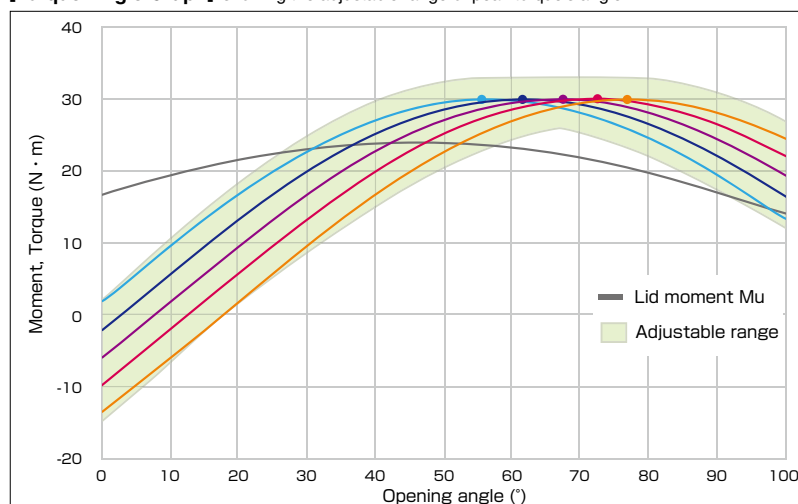
[Installation]



[Working range]



[Torque-Angle Graph] showing the adjustable range of peak torque's angle



[Indicator's Scale]

— 60 — 65 — 70 (default) — 75 — 80 ● Angle of peak torque

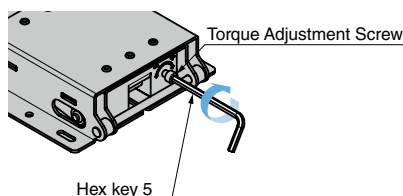
Lid moment $\mu >$ Hinge torque . . . Force is applied in the closing direction of lid.

Lid moment $\mu <$ Hinge torque . . . Force is applied in the opening direction of lid.

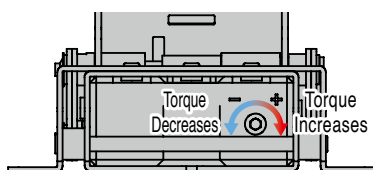
Lid specs (example) : X=170mm Y=175mm L=244mm m=8.6kg

(Setting the indicator to 60 is the right adjustment in this case.)

[How to Adjust Torque]

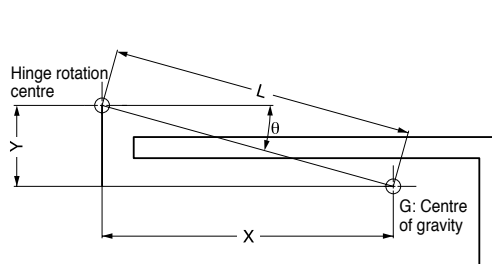


Turn the screw with a hex key



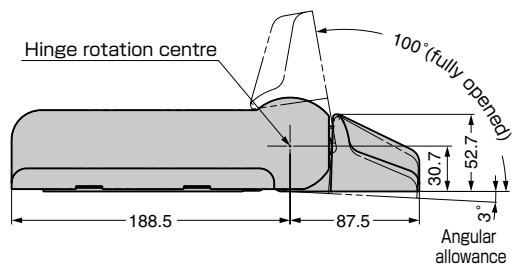
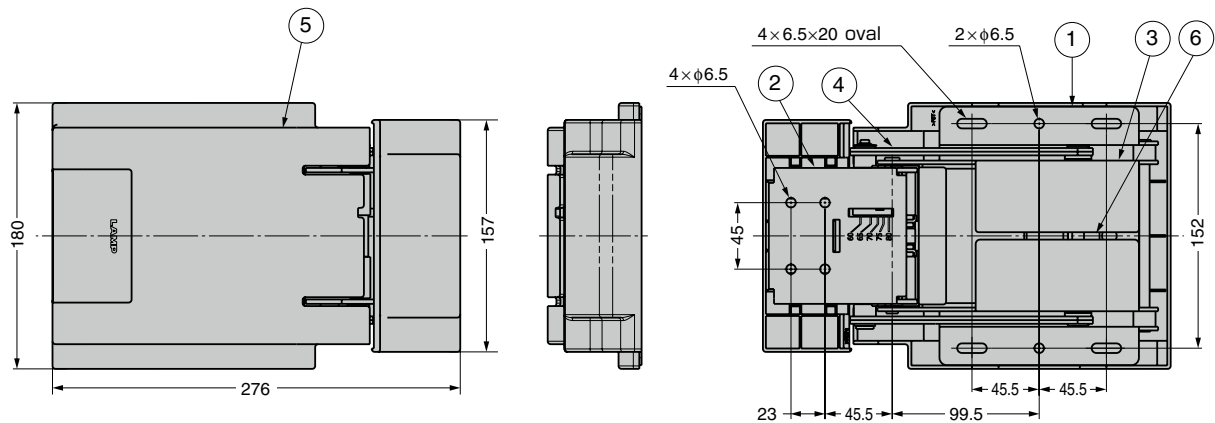
[Calculating Lid Moment]

Calculation formula $\mu = m \times L \times \cos \theta$



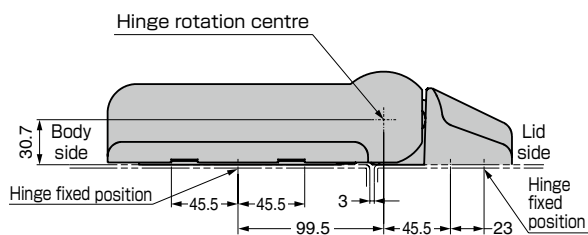
X	Horizontal distance from rotation centre to lid centre of gravity
Y	Vertical distance from rotation centre to lid centre of gravity
L	Distance from rotation centre to lid centre of gravity
θ	Angle from the horizontal line at the rotation centre to lid centre of gravity
m	Lid weight
G	Lid centre of gravity

Refer to 1 : No.280 P.15

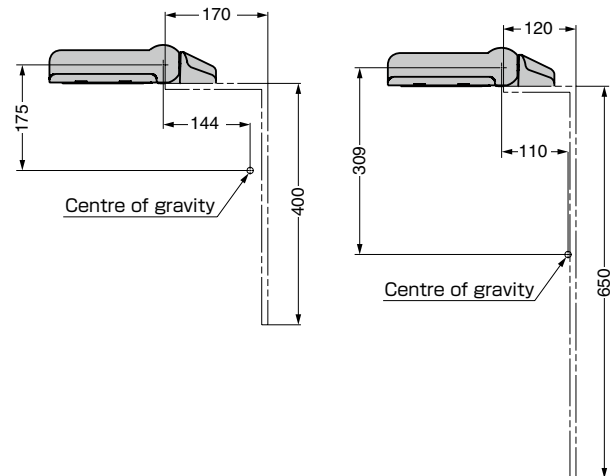


No.	Part Name	Material / Colour
①	Base A	Stainless Steel (SUS430)
②	Base B	
③	Case	
④	Link Arm	PBT / Light Grey
⑤	Plastic Cover	
⑥	Slider	POM
⑦	Spring	Steel (SWO)

[Installation]



[Installation Example]



RoHS	CAD	Item Code	Item Name	Description	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
		170-044-367	HG-PA300-15	Peak torque 60°-80°	15 \pm 10%	153 \pm 10%	3400	1	-