

Mounting Flange for EOAT

Special Products Information

Robotic arm end flange for a vacuum cup or a gripper **HS** Type



Suction

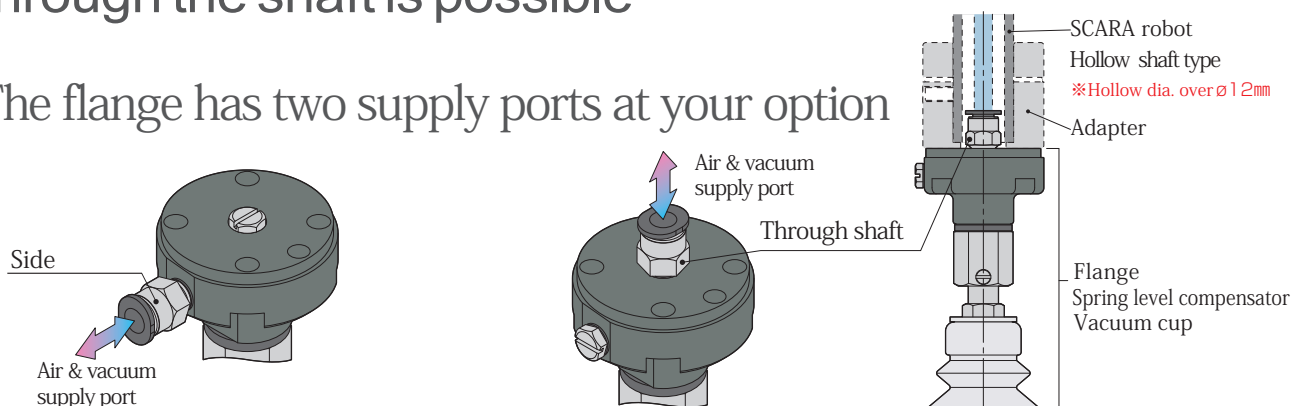
Gripping

- We offer mounting flanges for vacuum cups or grippers



- For direct-mounting on P.C.D. 31.5 M5
Flange adapters are provided to fit any robotic arm end
- In case of the hollow shaft of SCARA robot, piping through the shaft is possible

The flange has two supply ports at your option





Flange for Vacuum cup Model Designation (Example)



⑤. Rotational position

| | |
|-----------------|---|
| Code | Rotational positioning |
| C | If rotational positioning is needed when it is installed on the P.C.D. 31.5 M5 flange robot |
| No entry | No positioning is needed |

④. Flange thread size

| | | | | | |
|-------------|---------------------|------------|---------------------|--------------------------------|-------------|
| Code | -M4 | -M6 | -M14 | -M10 | -M14 |
| Thread size | M4×0.7 | M6×1 | M14×1 | M10×1 | M14×1 |
| Flange type | Direct-mounted type | | Spring plunger type | Low dust emission plunger type | |

※ Refer to the following chart (Vacuum cup types and sizes mountable on flange)

③. Flange type

| | | | |
|-----------------|---------------------|-------------------------------|------------------------|
| Code | -VPM | -VPF | -VPLFC |
| Vacuum cup type | Direct-mounted type | Spring level-compensator type | Low dust emission type |

②. End effector type

| | |
|------|------------|
| Code | P |
| Type | Vacuum cup |

①. Mounting flange for single unit

※) Attachment parts (screws, fittings and so on)

-VPM, -VPF : Flange fixing screws, pneumatic fittings (PC6-M5M, PL6-M5M, LP-M5), a sealing O-ring for flange direct-mounting type vacuum generator VYR (sold separately).

-VPLFC: Flange fixing screws, pneumatic fittings (PC6-M5M, PL6-M5M, LP-M5), a sealing O-ring for flange direct-mounting type vacuum generator VYR (sold separately), an adapter joint

Either in-line piping or side port piping can be made with the pneumatic fittings attached.

※) The kit does not including any vacuum cups. Order separately.

※) Consult us when installing the end effector type vacuum generator VYR together

<Order example ①>

- Flange
HS P -VPM -M6 1 unit
① ② ③ ④
- Vacuum cup
VP20BN-M6 1 unit

<Order example ②>

- Flange
HS P -VPLFC -M14 1 unit
① ② ③ ④
- Vacuum cup
VPLFC20-5RN-M6 1 unit

Vacuum cup types and sizes mountable on flange

| ③ (※1) | Vacuum cup type | ④ (※2) | Vacuum cup types and sizes (mm) | | | | | | | | | | | | Oval type Dimensions (mm) | |
|-----------|-------------------------------|-----------|---------------------------------|---------|------|------|--------------|-----------|---------|---------------|-------------------|-------------|------|-----------|------------------------------|--------|
| | | | Standard | | | Soft | Soft Bellows | Skidproof | Bellows | Multi-Bellows | Packaging Bellows | Thin Object | Flat | Mark-free | | Sponge |
| | | | Small | General | Deep | | | | | | | | | | | |
| -VPM | Direct-mount (mounting screw) | -M4 | | | | | | | | | | | | | | |
| | | -M6 | | | | | | | | | | | | | | |
| -VPF | Spring Level Compensator | -M14 | | | | | | | | | | | | | | |
| -VPLFC | Spring Low Emission | -M10 | | | | | | | | | | | | | | |
| | | -M14 | | | | | | | | | | | | | | |

※1) ③ in the chart means the type of flange

※2) ④ in the chart shows the thread size of flange

※3) Select the female type vacuum port for Low Dust Emission Spring Level Compensator (-VPLFC) type

Dimensions of flange for vacuum mounting

Low dust emission spring level compensator

Flange thread size code : -M10

Model : **HSP-VPLFC-M10**
HSP-VPLFC-M10C

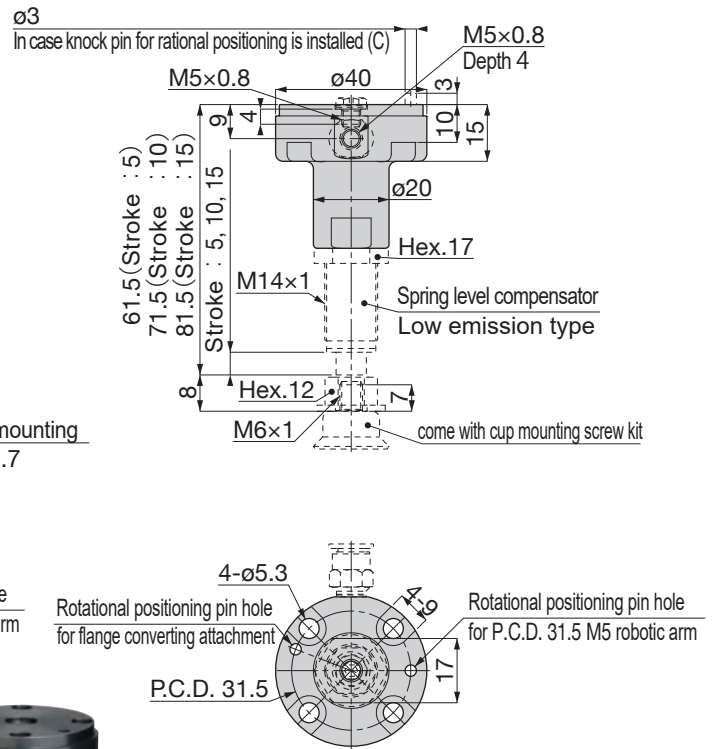
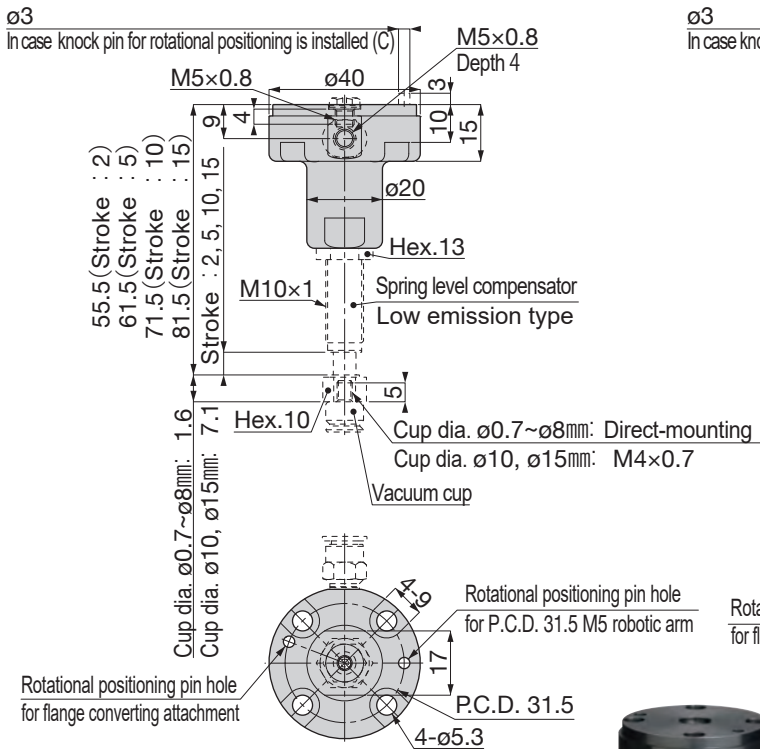
Weight : 86g
86g

Low dust emission spring level compensator

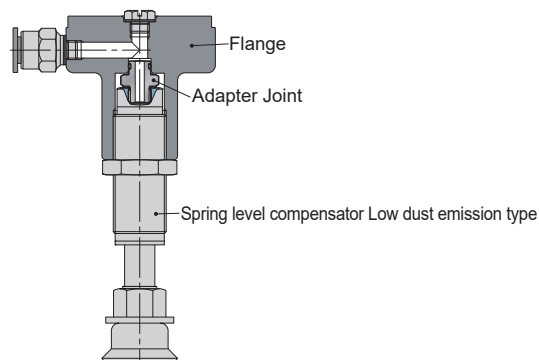
Flange thread size code : -M14

Model : **HSP-VPLFC-M14**
HSP-VPLFC-M14C

Weight : 81g
81g



Structure



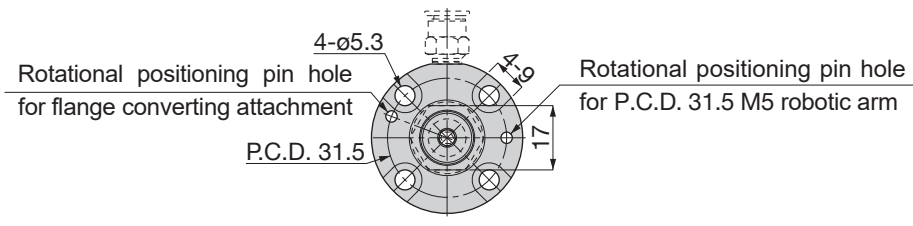
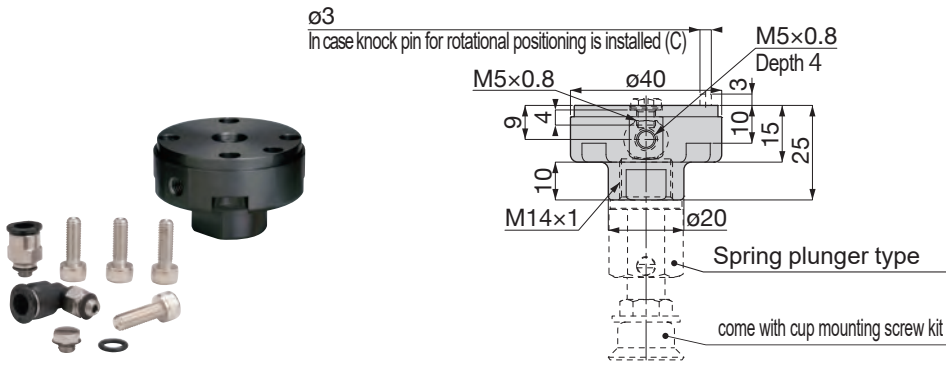


Flange for Spring plunger type

Flange thread size code : -M14

Model : **HSP-VPF-M14**
HSP-VPF-M14C

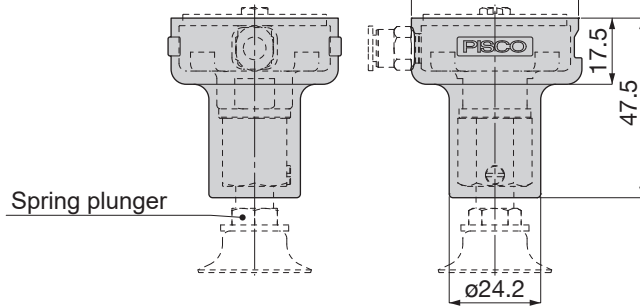
Weight : 70g
70g



Protection Cover for Spring plunger

Model : **HSP-HC-VPF-M14**

Weight : 14g



Appearance of protection cover installed



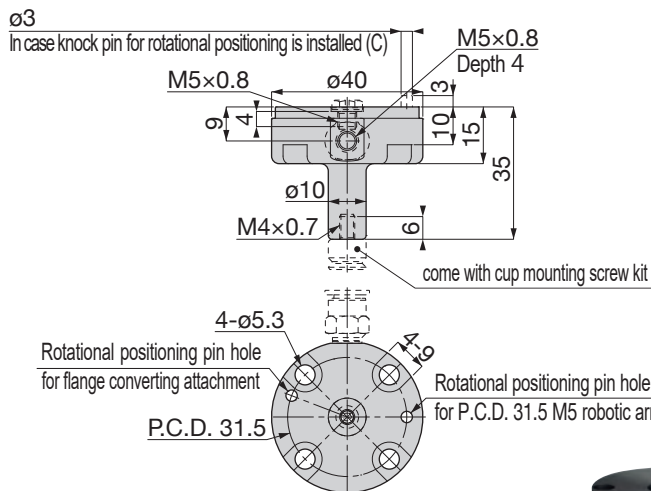
The material of the protection cover is silicone rubber. The color is translucent blue.

for Direct-mounting Cup

Flange thread size code : -M4

Model : **HSP-VPM-M4**
HSP-VPM-M4C

Weight : 72g
72g

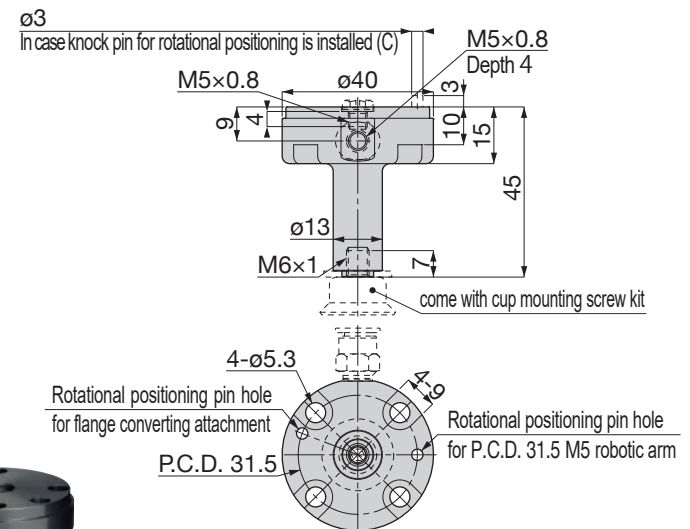


for Direct-mounting Cup

Flange thread size code : -M6

Model : **HSP-VPM-M6**
HSP-VPM-M6C

Weight : 77g
77g



Flange for Gripper Model Designation (Example)



④. Rotational position

| Code | Rotational position |
|-----------------|---|
| C | If rotational positioning is needed when it is installed on the P.C.D. 31.5 M5 flange robot |
| No entry | No positioning is needed |

③ Flange type

| Code | Mounting Gripper Type | Remarks - models to fit |
|---------------|---|--|
| -CHB18 | Compact parallel gripper multi acting | Any models except body width 23.6mm (CHB18) model with center port |
| -CHA10 | Compact parallel gripper single acting | Models with body width 14mm (CHA10, CHA10E) |
| -CHM11 | Stainless Steel Angular Internal/External gripper | Shank types of cylinder dia.11mm (CHM11) |

②. End effector type

| Code | C |
|------|----------|
| Type | Gripper |

①. Mounting flange for single unit

- ※) Attachment parts come with Flange
 - CHB18 : Flange mounting screws, Mounting screws for small parallel gripper
 - CHA10 : Flange mounting screws, Mounting screws/sealing O-ring for small parallel gripper, Pneumatic fittings (PC6-M5M, PL6-M5M, LP-M5)
 - CHM11 : Flange mounting screws, Pneumatic fittings (PC6-M5M, PL6-M5M, LP-M5), a set screw for angular gripper, a set screw spacer, an adapter joint

Either in-line piping or side port piping can be made by the pneumatic fittings attached.

- ※) The kit does not include any grippers. Order the gripper separately.
- ※) When sensor switches (option) are mounted on the multi-acting parallel gripper, specify the upper connection type.

<Designation example>

- Flange
HS C -CHB18 C 1pc.
① ② ③ ④
- Compact parallel gripper multi- acting type
CHB18-D 1pc.
- Attachment for compact parallel gripper
CHK18 1pc.
- Sensor switch
ZE255A 2pcs.
- Barb fitting (pneumatic piping)
LC-0640-M5 2pcs.



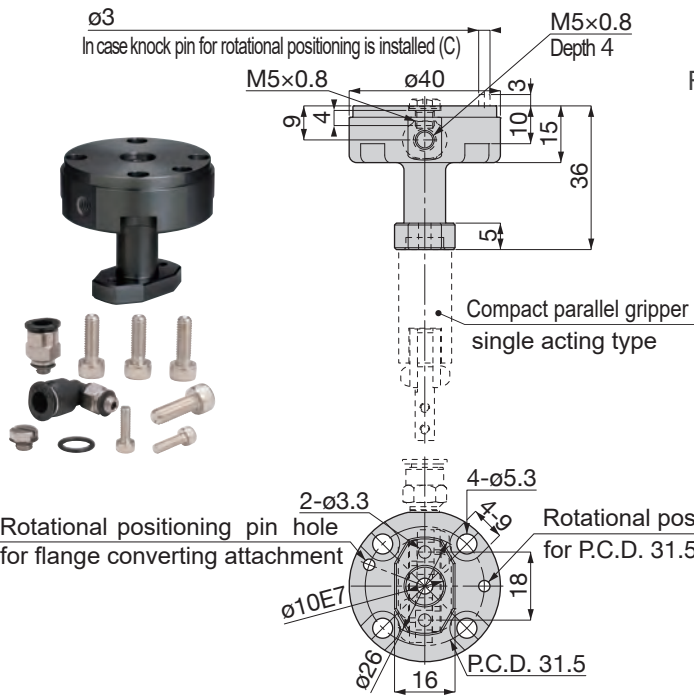


Dimensions of flange for mounting gripper

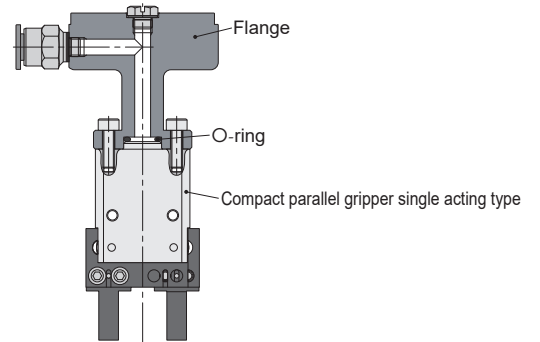
■ for Compact parallel gripper single acting type

Model : **HSC-CHA10**
HSC-CHA10C

Weight : 77g
77g



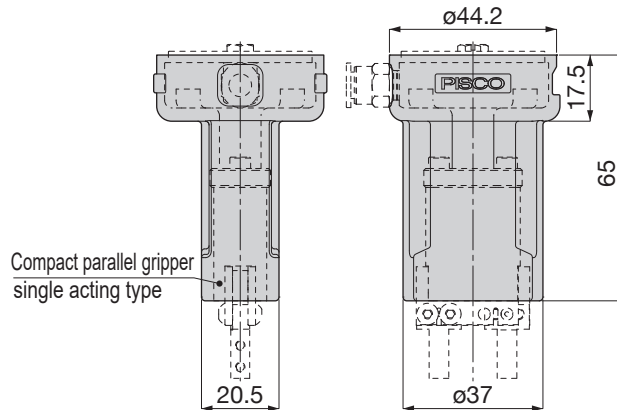
Flange structure for compact parallel gripper single acting type



Gripping

■ Appearance of protection cover installed
T [ϕ] : **HSC-HC-CHA10**

Weight : 20g



● Appearance of protection cover installed

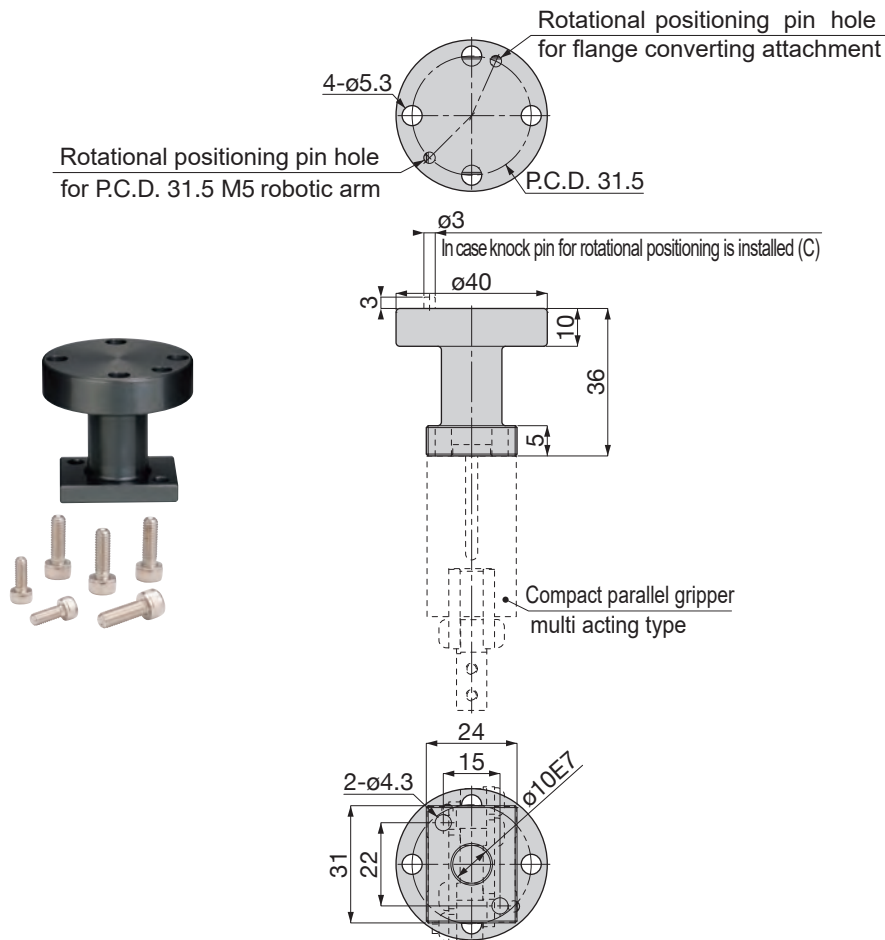


※ The material of the protection cover is silicone rubber. The color is translucent blue.

■ for Compact parallel gripper multi-acting type

Model : **HSC-CHB18**
HSC-CHB18C

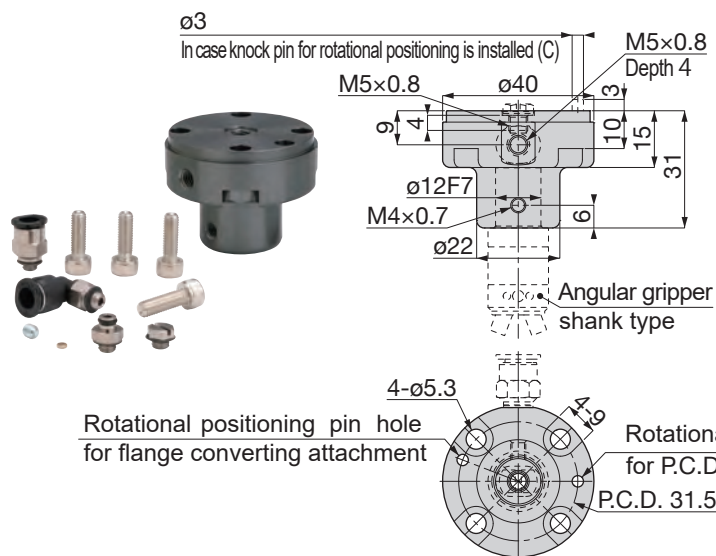
Weight : 71g
71g



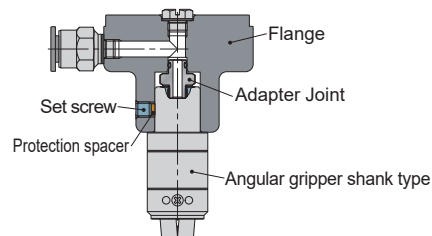
■ for Angular gripper Shank type

Model : **HSC-CHM11**
HSC-CHM11C

Weight : 82g
82g



Flange structure for angular gripper shank type





Dimensions of Robot flange converting Attachment (Attachment with no rotational position)

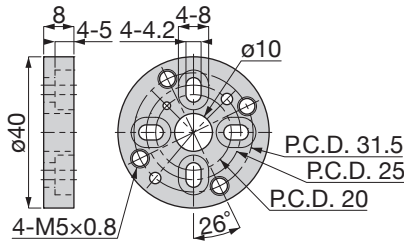
■ Converting attachment list (P.C.D. side)

| Model | P.C.D. (mm) - Robot flange side | Mounting screw - Robot flange side | Rotating direction position shift (deg) |
|-----------|---------------------------------|------------------------------------|---|
| RFA002M01 | 20, 25 (common) | M4 | 26° |
| RFA002M07 | 25 | M5 | 28° |
| RFA002M04 | 27 | | — |
| RFA002M03 | 31.5 | M4 | 25° |
| RFA002M08 | 40 | M6 | 28° |
| RFA002M06 | 50 | | — |
| RFA002M02 | 53.5, 60 (common) | M5 | — |
| RFA002M09 | 63 | M6 | — |

■ For robot with P.C.D. 20, 25 M4 flange

Model : [RFA002M01](#)

Weight : 26g

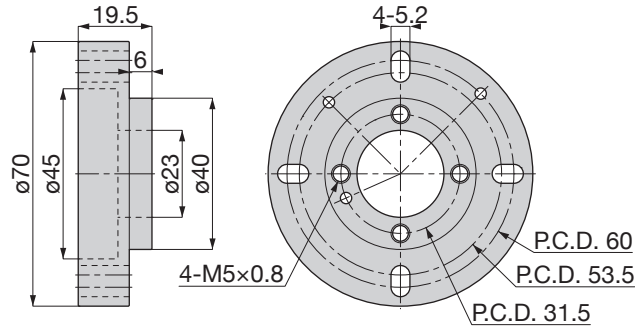


※) 4 socket head screws (M4x8) attached

■ For robot with P.C.D. 53.5, 60 M5 flange

Model : [RFA002M02](#)

Weight : 116g

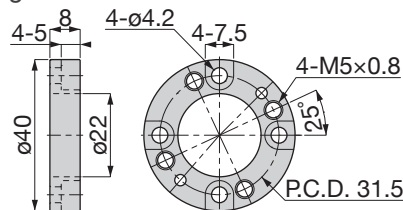


※) 4 socket head screws (M5x20) attached

■ For robot with P.C.D. 31.5 M4 flange

Model : [RFA002M03](#)

Weight : 21g

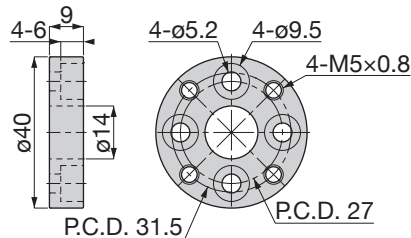


※) 4 socket head screws (M4x8) attached

■ For robot with P.C.D. 27 M5 flange

Model : [RFA002M04](#)

Weight : 32g

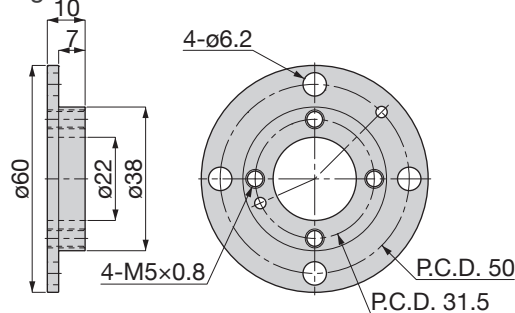


※) 4 socket head screws (M5x15) attached

■ For robot with P.C.D. 50 M6 flange

Model : [RFA002M06](#)

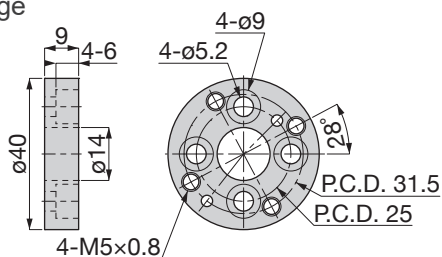
Weight : 48g



※) 4 socket screws (M6x8) attached

■ For robot with P.C.D. 25 M5 flange

Model : [RFA002M07](#)

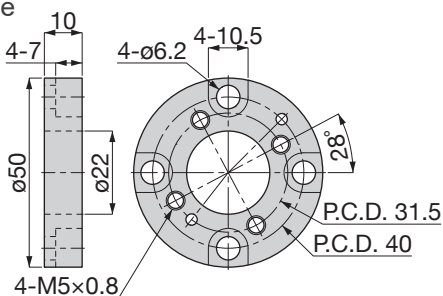


Weight : 32g

※) 4 socket head screws (M5x8) attached

■ For robot with P.C.D. 40 M6 flange

Model : [RFA002M08](#)

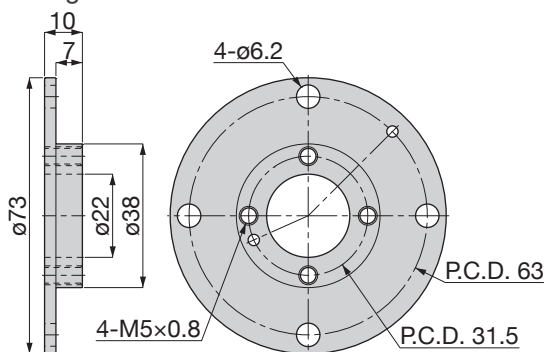


Weight : 50g

※) 4 socket head screws (M6x8) attached

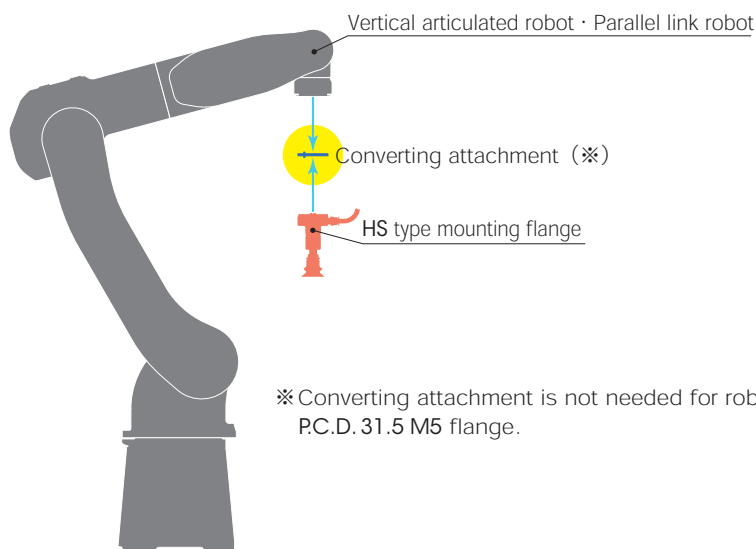
■ For robot with P.C.D. 63 M6 flange

Model : [RFA002M09](#)



Weight : 60g

※) 4 socket head screws (M6x8) attached



※ Converting attachment is not needed for robots with P.C.D. 31.5 M5 flange.



Dimensions of converting attachment for robot flange (attachment with rotational positioning)

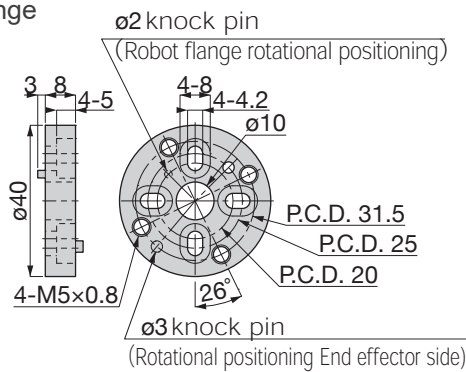
Converting attachment list (P.C.D. side)

| Model | P.C.D. (mm) Robot flange side | Mounting screw Robot flange side | Rotational positioning | | | Rotating direction position shift (deg) |
|-----------------|----------------------------------|-------------------------------------|------------------------|---------------|-----------------|--|
| | | | Position | Pin dia. (mm) | Projection (mm) | |
| RFA002M01-20C | 20 | M4 | 45° on P.C.D. | ø2 | 3 | 26° |
| RFA002M01-25C | 25 | | | | | M5 |
| RFA002M07C | | M4 | 45° on P.C.D. | 35° | | |
| RFA002M05C | 31.5 | | | M6 | | 25° |
| RFA002M03C | | 40 | M5 | | | 28° |
| RFA002M08C | 50 | | | M6 | | — |
| RFA002M06C | | 53.5 | M5 | | — | |
| RFA002M02-53.5C | 60 | | | M6 | — | |
| RFA002M02-60C | | 63 | M5 | | — | |
| RFA002M09C | | | | | | |

For robot with P.C.D. 20 M4 flange

Model : [RFA002M01-20C](#)

Weight : 27g

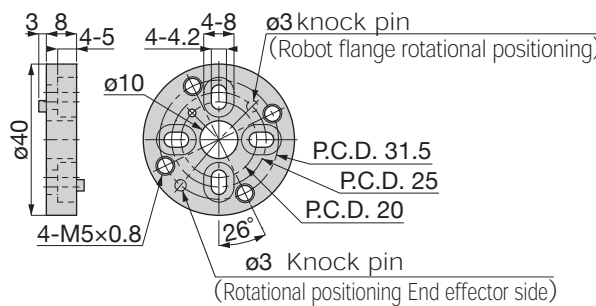


※ 4 socket head screws (M4x8) attached

For robot with P.C.D. 25 M4 flange

Model : [RFA002M01-25C](#)

Weight : 27g

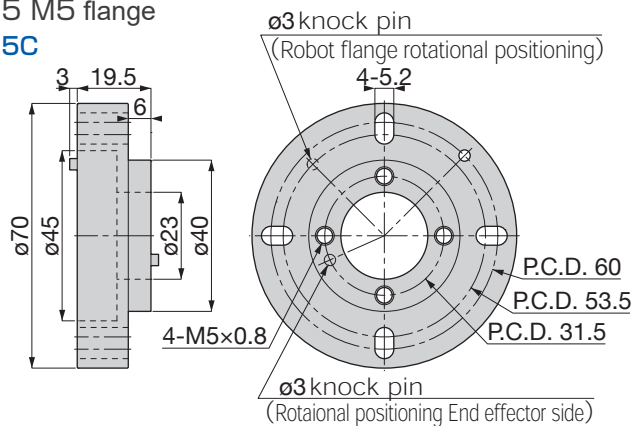


※ 4 socket head screws (M4x8) attached

For robot with P.C.D. 53.5 M5 flange

Model : [RFA002M02-53.5C](#)

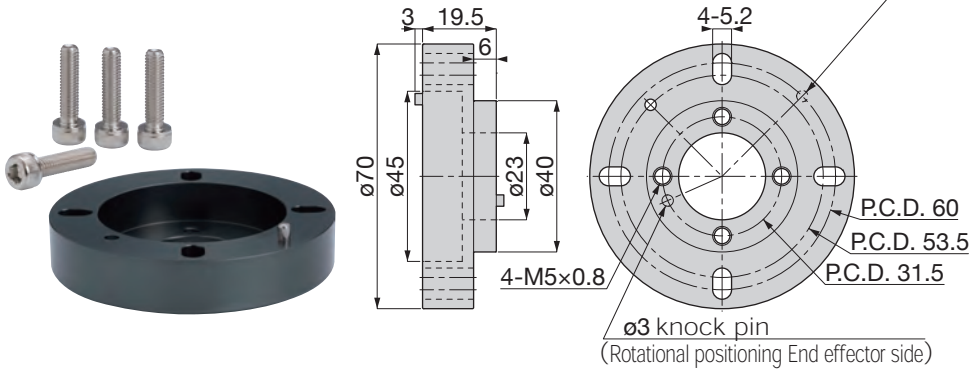
Weight : 117g



※ 4 Socket head screws (M5x20) attached

■ For robot with P.C.D. 60 M5 flange
Model : **RFA002M02-60C**

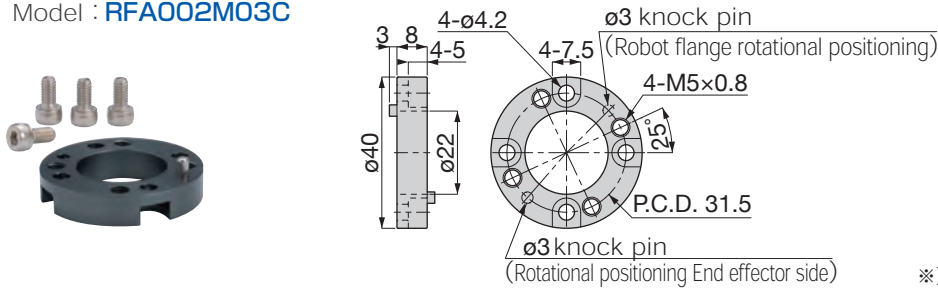
Weight : 117g



※ 4 socket head screws (M5x20) attached

■ For robot with P.C.D. 31.5 M4 flange
Model : **RFA002M03C**

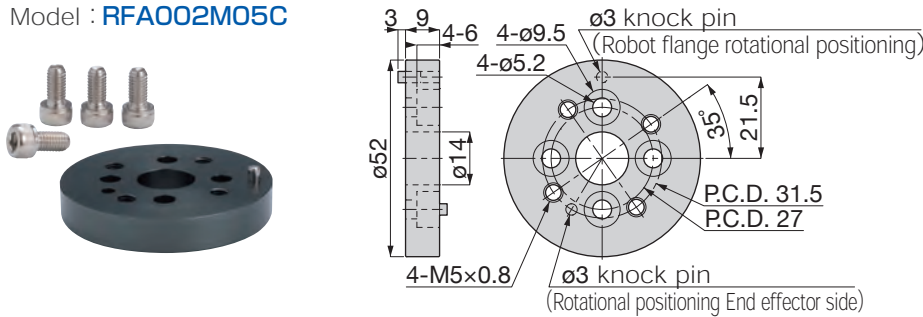
Weight : 22g



※ 4 socket head screws (M4x8) attached

■ For robot with P.C.D. 27 M5 flange
Model : **RFA002M05C**

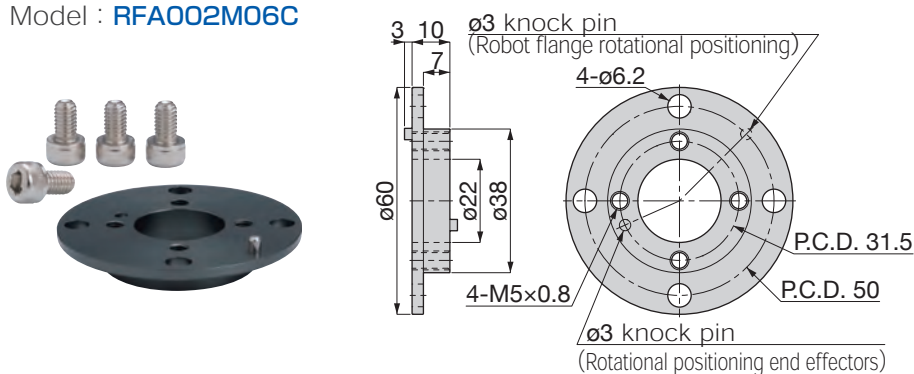
Weight : 54g



※ 4 socket head screws (M5x15) attached

■ For robot with P.C.D. 50 M6 flange
Model : **RFA002M06C**

Weight : 49g



※ 4 socket head screws (M6x8) attached

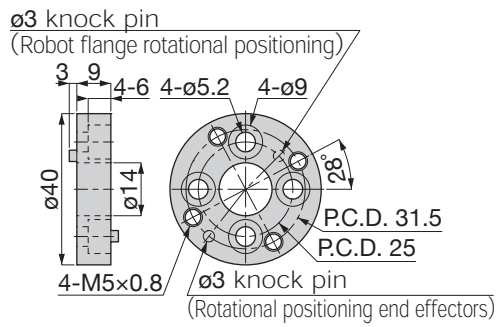


Suction

For robot with P.C.D. 25 M6 flange

Model : **RFA002M07C**

Weight : 33g



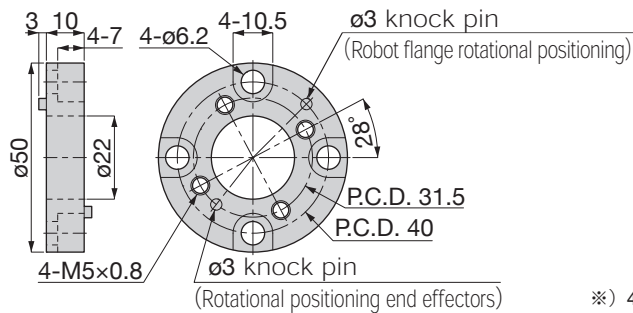
※) 4 socket head screws (M5×8) attached

Gripping

For robot with P.C.D. 40 M6 flange

Model : **RFA002M08C**

Weight : 51g

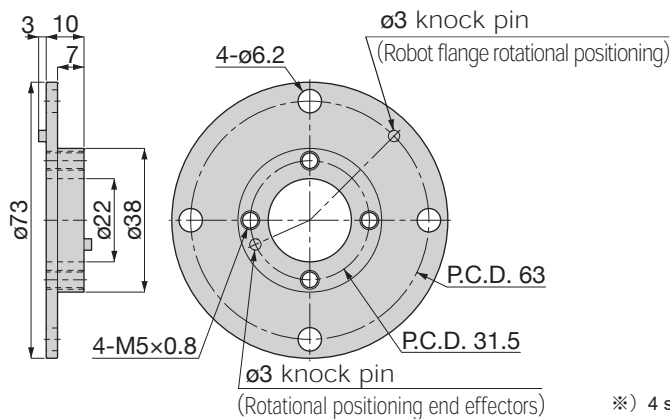


※) 4 socket head screws (M6×8) attached

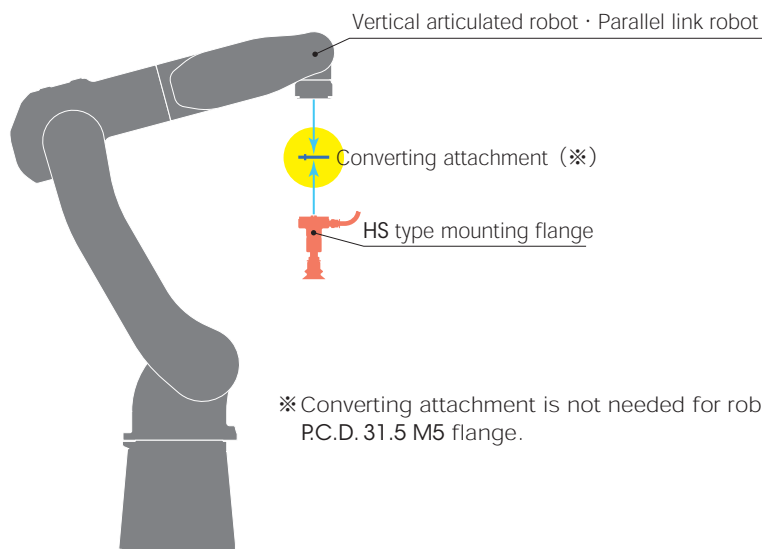
For robot with P.C.D. 63 M6 flange

Model : **RFA002M09C**

Weight : 61g



※) 4 socket head screws (M6×8) attached

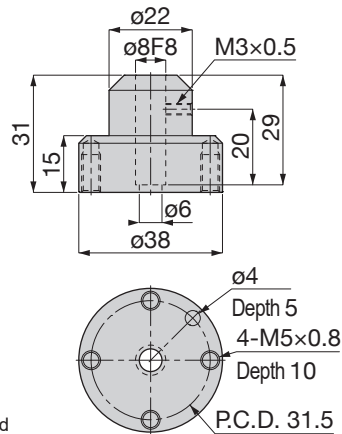


※ Converting attachment is not needed for robots with P.C.D. 31.5 M5 flange.

Dimensions of Converting attachment for SCARA robot

■ For robot with $\varnothing 8$ axis
 Model : **SCH001M01**

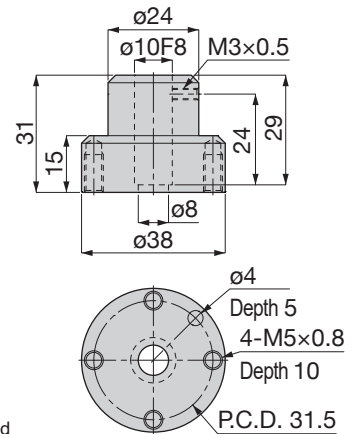
Weight : 56g



※) A set screw (M3x6) attached

■ For robot with $\varnothing 10$ axis
 Model : **SCH001M02**

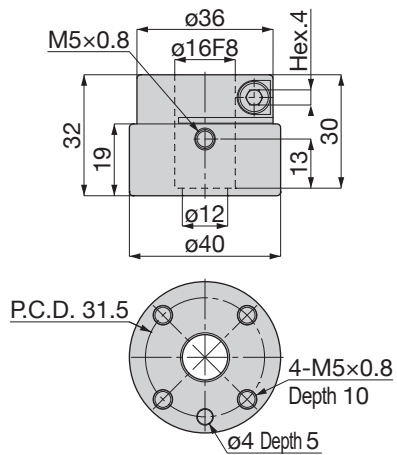
Weight : 57g



※) A set screw (M3x6) attached

■ For robot with $\varnothing 16$ axis
 Model : **SCH001M04**

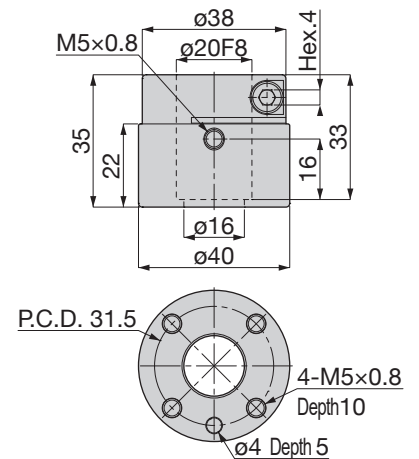
Weight : 82g



※) A socket head screw (M5x15) and a set screw (M5x8) attached

■ For robot with $\varnothing 20$ axis
 Model : **SCH001M05**

Weight : 85g



※) A socket head screw (M5x15) and a set screw (M5x8) attached

