

Mounting Flange for EOAT

Special Products Information

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



Suction

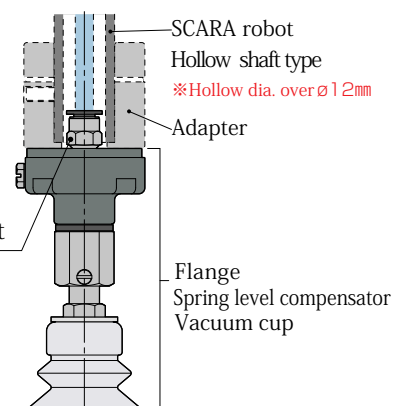
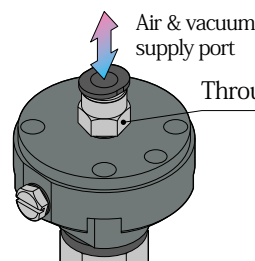
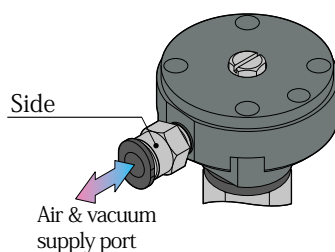
Gripping

- 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 type s 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	Oval
			Small	General	Deep											
Cup shape																
-VPM	Direct-mount (mounting screw)	-M4		ø10, ø15	ø15	ø4~ø15	ø6~ø15	ø10	ø10, ø15	ø10			ø10, ø15	ø10		
		-M6		ø20~ø50		ø20~ø40	ø20	ø20~ø50	ø20~ø50	ø30~ø50			ø20~ø30	ø20~ø30	ø10~ø50	2×4~8×30
-VPF	Spring Level Compensator	-M14		ø10~ø50	ø15~ø50	ø4~ø40	ø6~ø20	ø10~ø50	ø10~ø50				ø10~ø30	ø10~ø30	ø10~ø50	2×4~8×30
-VPLFC	Spring Low Emission	-M10	ø0.7~ø4	ø6~ø15	ø15	ø4~ø15	ø6~ø15	ø10	ø10, ø15	ø10		ø8~ø20	ø10, ø15	ø10		
		-M14		ø20~ø50		ø20~ø40	ø20	ø20~ø50	ø20~ø50				ø20~ø30	ø20~ø30	ø10~ø50	2×4~8×30

※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

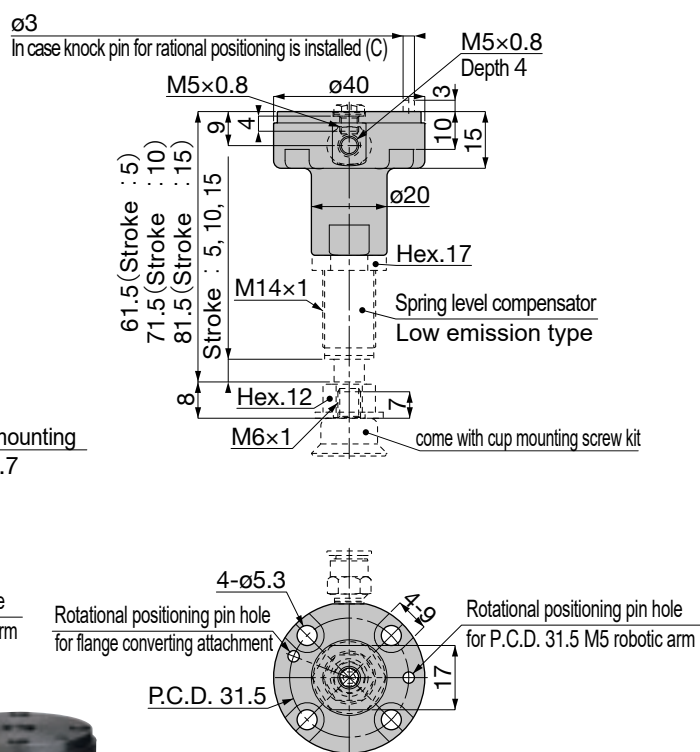
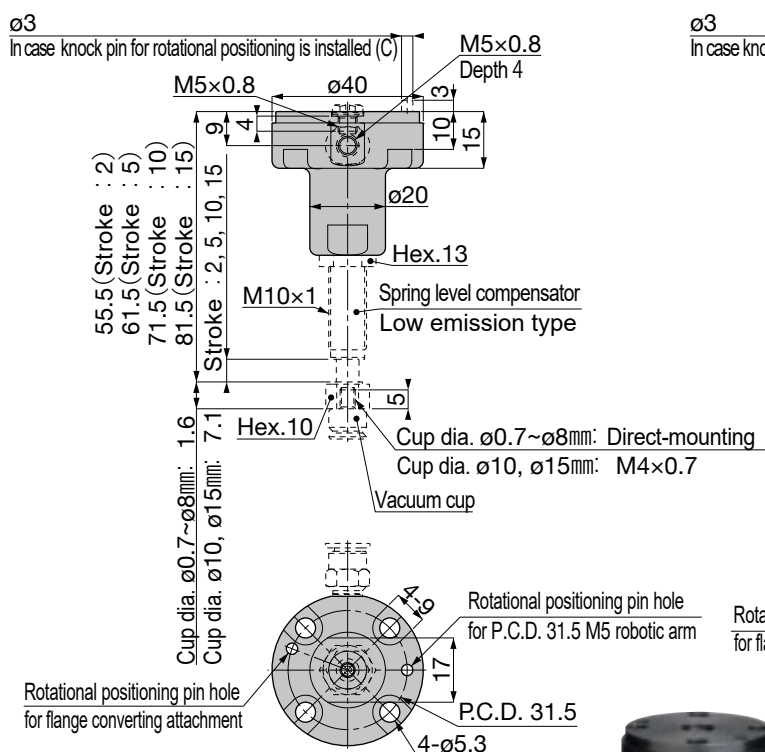
Weight : 86g
86g

■ Low dust emission spring level compensator

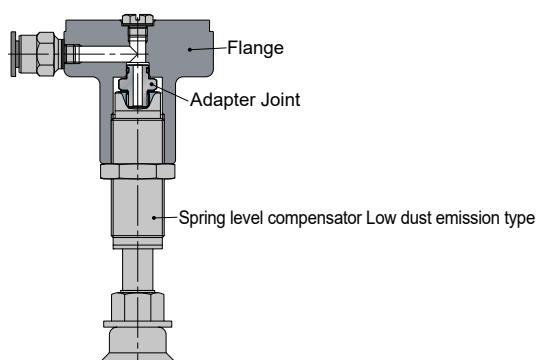
Flange thread size code : -M14

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

Weight : 81g
81g



Structure



Suction



Gripping



End Effector Flange **HS** type



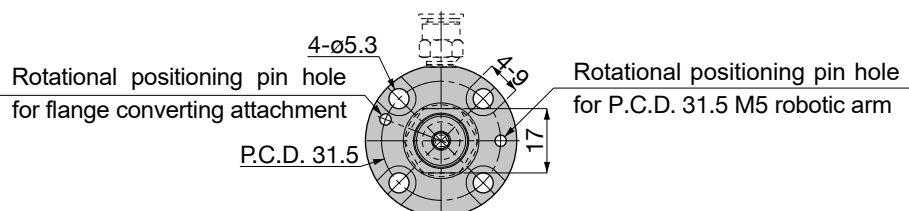
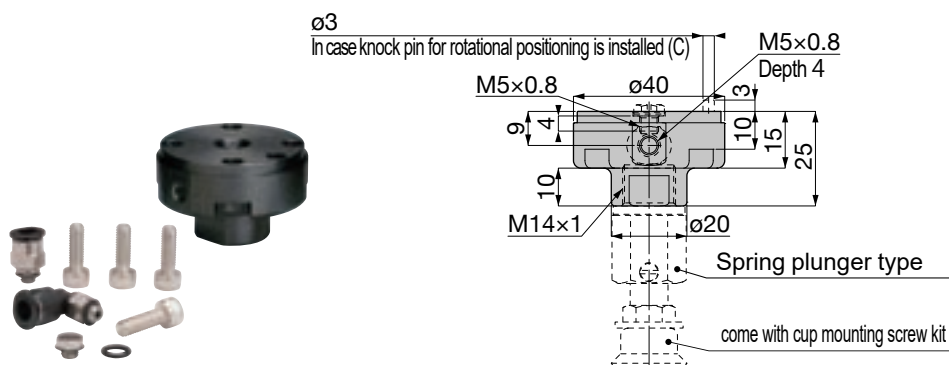
Suction

■ Flange for Spring plunger type

Flange thread size code : -M14

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

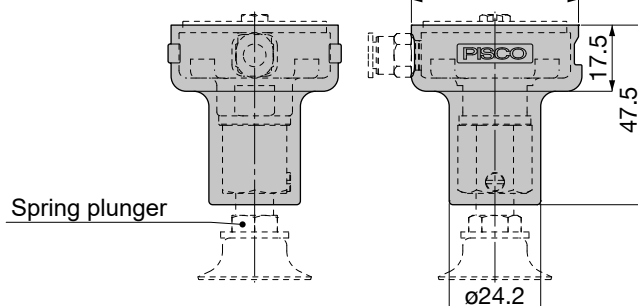
Weight : 70g
70g



■ Protection Cover for Spring plunger

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

Weight : 14g



● Appearance of protection cover installed



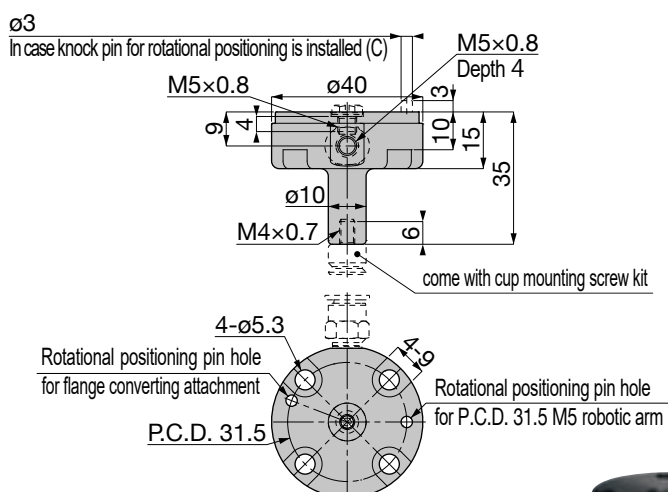
○ The material of the protection cover is silicone rubber. The color is translucent blue.

■ for Direct-mounting Cup

Flange thread size code : -M4

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

Weight : 72g
72g

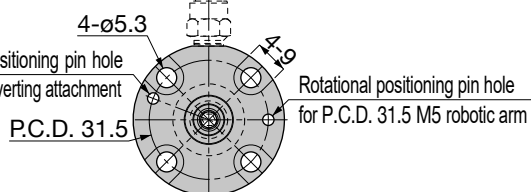
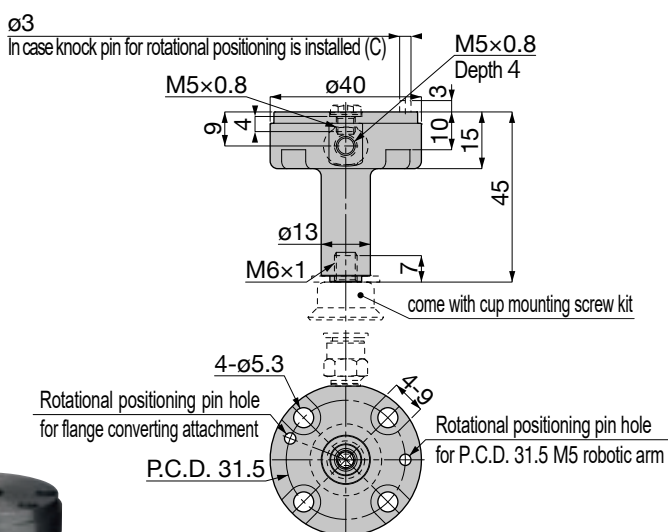


for Direct-mounting Cup

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.



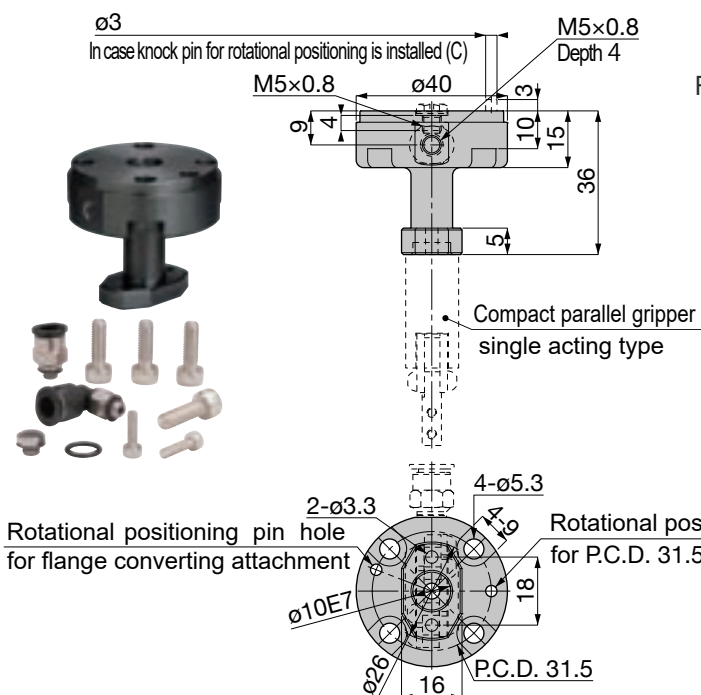


Dimensions of flange for mounting gripper

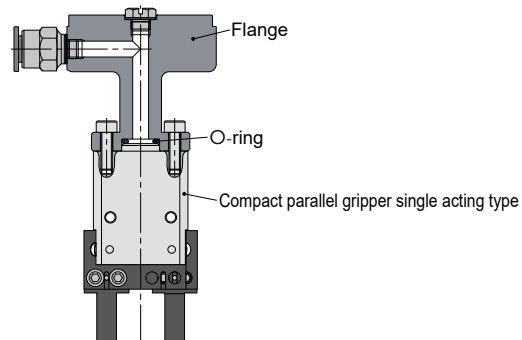
■ for Compact parallel gripper single acting type

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

Weight : 77g
77g



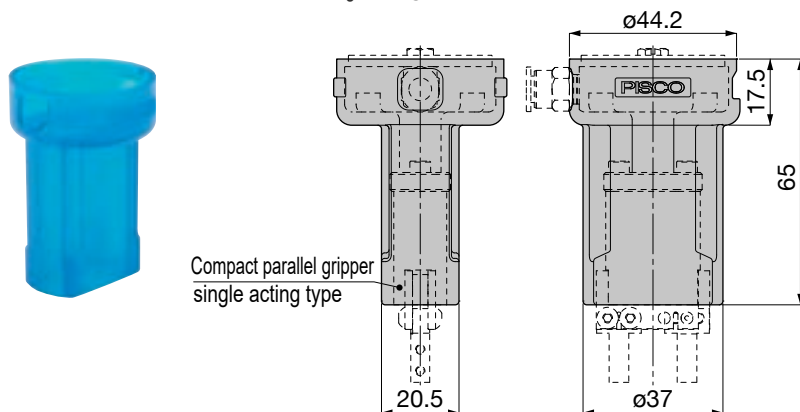
Flange structure for compact parallel gripper single acting type



■ Protection cover for compact parallel gripper single acting type

Model : **HSC-HC-CHA10**

Weight : 20g



● Appearance of protection cover installed



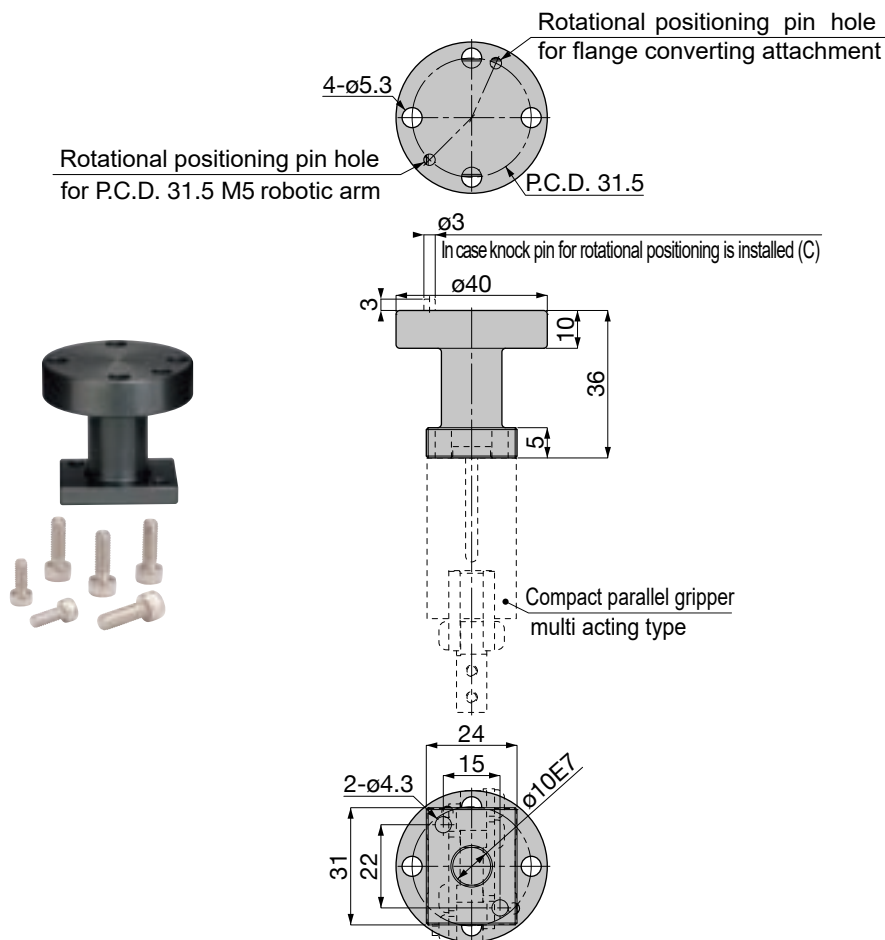
※ The material of the protection cover is silicone rubber. The color is translucent blue.

■ for Compact parallel gripper multi-acting type

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

Weight : 71g

71g

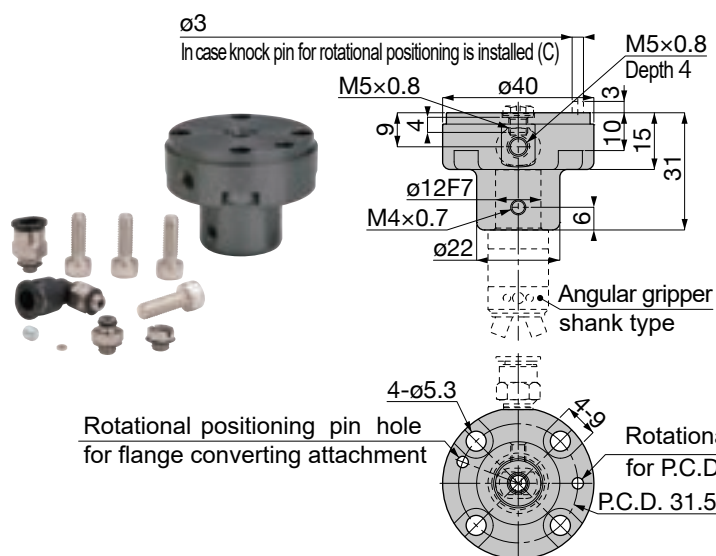


■ for Angular gripper Shank type

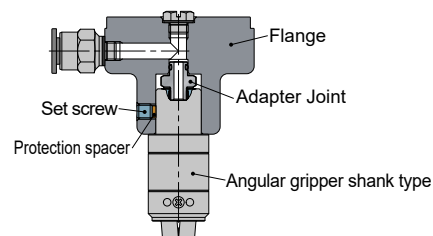
Model : **HSC-CHM11**
HSC-CHM11C

Weight : 82g

82g



Flange structure for angular gripper shank type





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

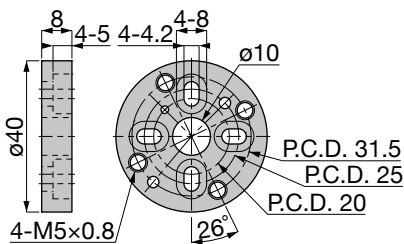
■ Converting attachment list (P.C.D. side)

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

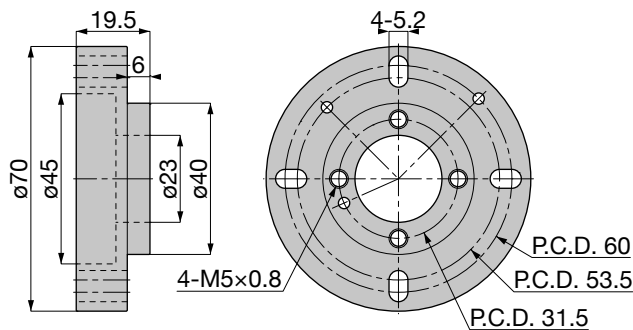


※) 4 socket head screws (M4x8) attached

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

Model : [RFA002M02](#)

Weight : 116g

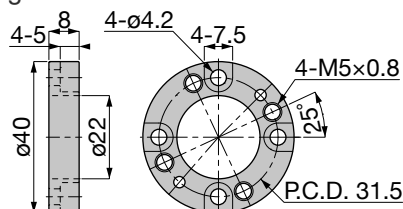


※) 4 socket head screws (M5x20) attached

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

Model : [RFA002M03](#)

Weight : 21g

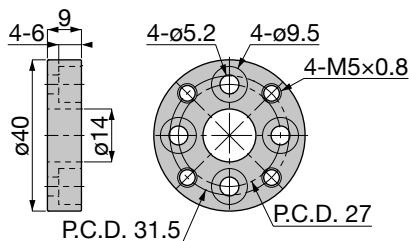


※) 4 socket head screws (M4x8) attached

■ For robot with P.C.D. 27 M5 flange

Model : [RFA002M04](#)

Weight : 32g

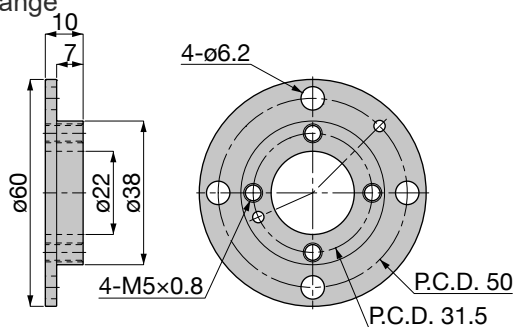


※) 4 socket head screws (M5x15) attached

■ For robot with P.C.D. 50 M6 flange

Model : [RFA002M06](#)

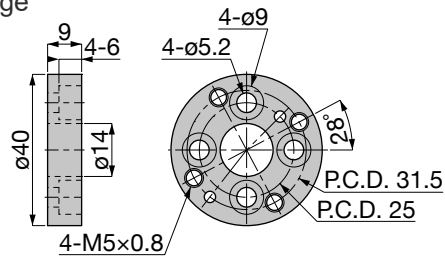
Weight : 48g



※) 4 socket screws (M6x8) attached

■ For robot with P.C.D. 25 M5 flange

Model : [RFA002M07](#)

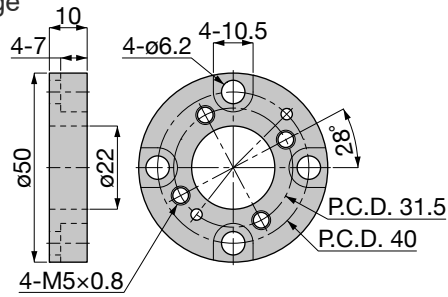


※) 4 socket head screws (M5×8) attached

Weight : 32g

■ For robot with P.C.D. 40 M6 flange

Model : [RFA002M08](#)

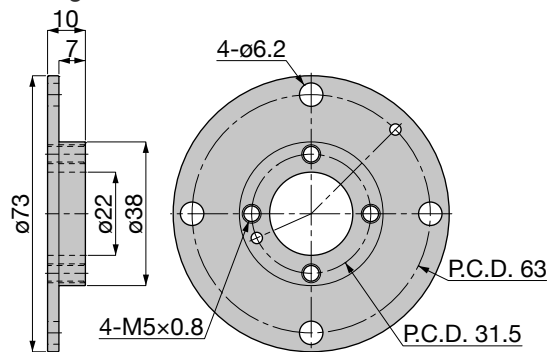


※) 4 socket head screws (M6×8) attached

Weight : 50g

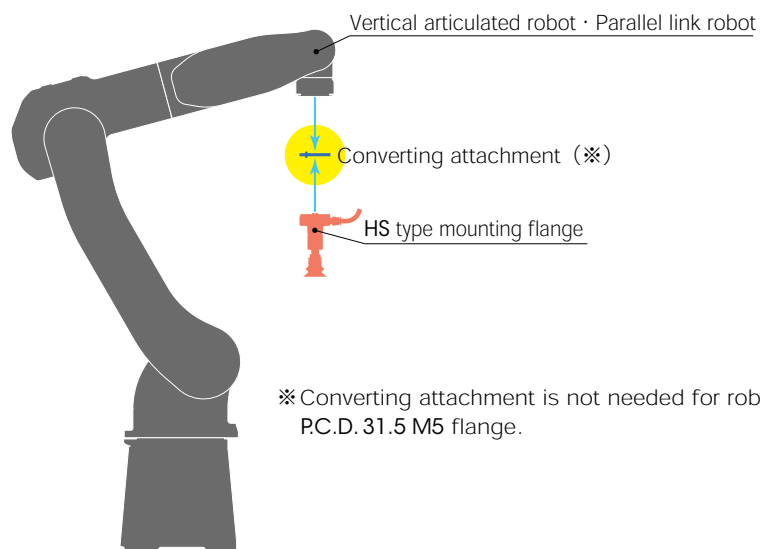
■ For robot with P.C.D. 63 M6 flange

Model : [RFA002M09](#)



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

Weight : 60g



※ 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)

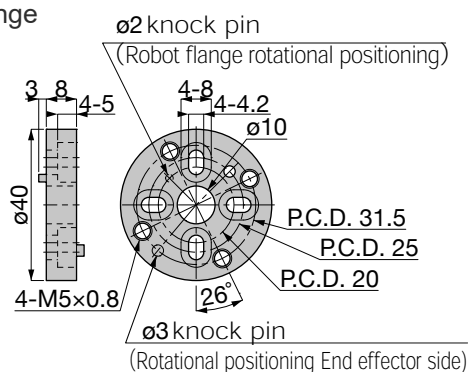
■ Converting attachment list (P.C.D. side)

Model	P.C.D. (mm)	Mounting screw Robot flange side	Rotational positioning			Rotating direction position shift (deg)	
	Robot flange side		Position	Pin dia. (mm)	Projection (mm)		
RFA002M01-20C	20	M4	45° on P.C.D.	ø2	3	26°	
RFA002M01-25C	25			M5		location 21.5mm from center	ø3
RFA002M07C		35°					
RFA002M05C	27	25°					
RFA002M03C	31.5	M4	28°				
RFA002M08C	40	M6	45° on P.C.D.	ø3		3	
RFA002M06C	50						
RFA002M02-53.5C	53.5	M5					
RFA002M02-60C	60						
RFA002M09C	63	M6					

■ For robot with P.C.D. 20 M4 flange

Model : [RFA002M01-20C](#)

Weight : 27g

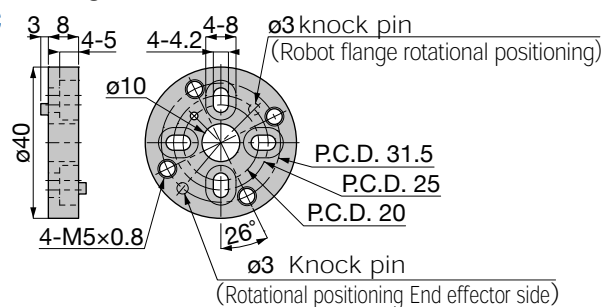


※) 4 socket head screws (M4x8) attached

■ For robot with P.C.D. 25 M4 flange

Model : [RFA002M01-25C](#)

Weight : 27g

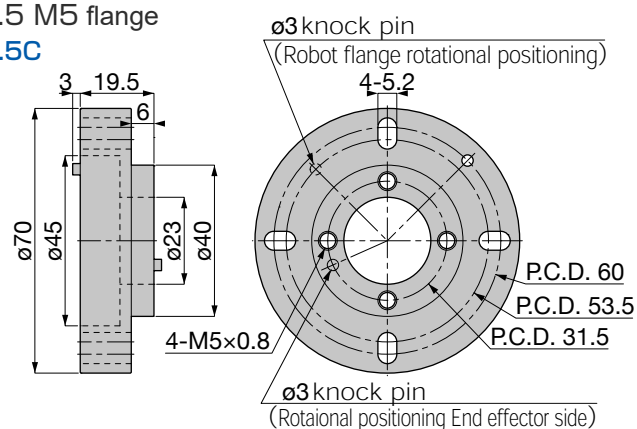


※) 4 socket head screws (M4x8) attached

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

Model : [RFA002M02-53.5C](#)

Weight : 117g



※) 4 Socket head screws (M5x20) attached



Suction

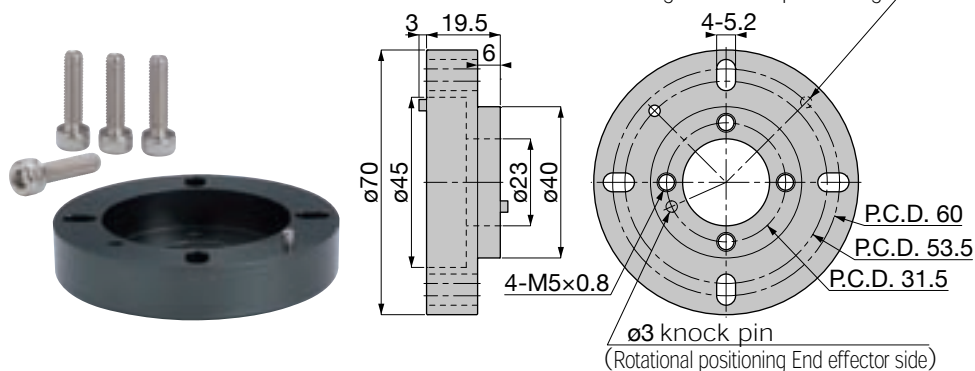


Gripping

■ For robot with P.C.D. 60 M5 flange

Model : [RFA002M02-60C](#)

Weight : 117g

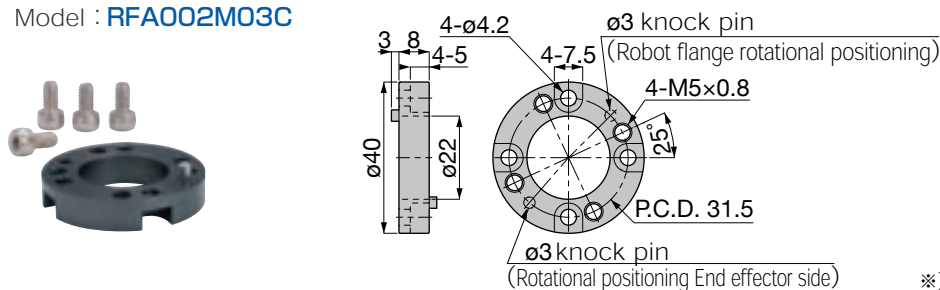


※) 4 socket head screws (M5x20) attached

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

Model : [RFA002M03C](#)

Weight : 22g

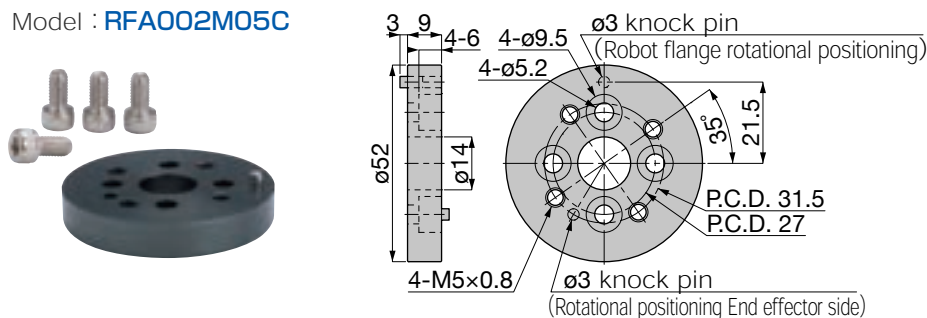


※) 4 socket head screws (M4x8) attached

■ For robot with P.C.D. 27 M5 flange

Model : [RFA002M05C](#)

Weight : 54g

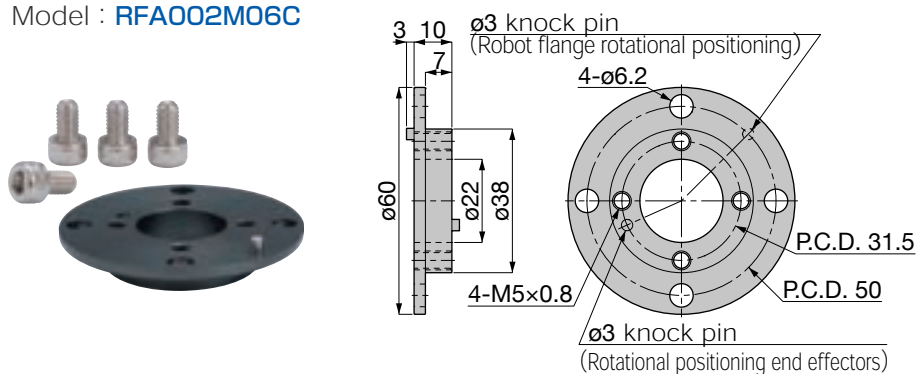


※) 4 socket head screws (M5x15) attached

■ For robot with P.C.D. 50 M6 flange

Model : [RFA002M06C](#)

Weight : 49g



※) 4 socket head screws (M6x8) attached

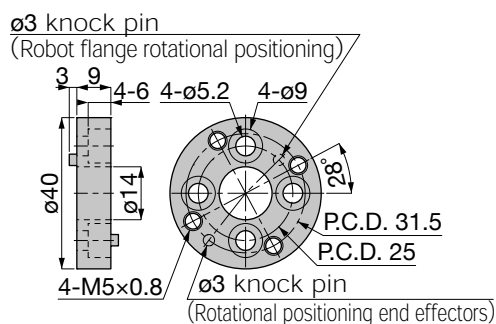


Suction

■ For robot with P.C.D. 25 M6 flange

Model : [RFA002M07C](#)

Weight : 33g



※) 4 socket head screws (M5 $\times$ 8) attached

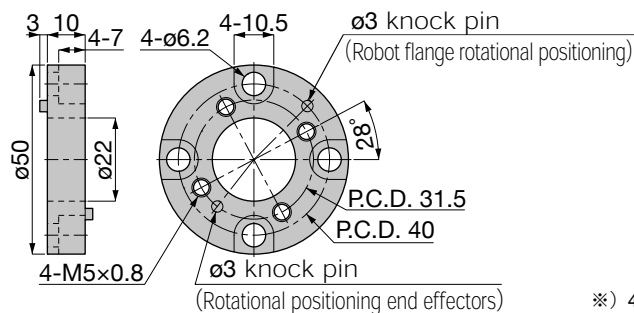


Gripping

■ For robot with P.C.D. 40 M6 flange

Model : [RFA002M08C](#)

Weight : 51g

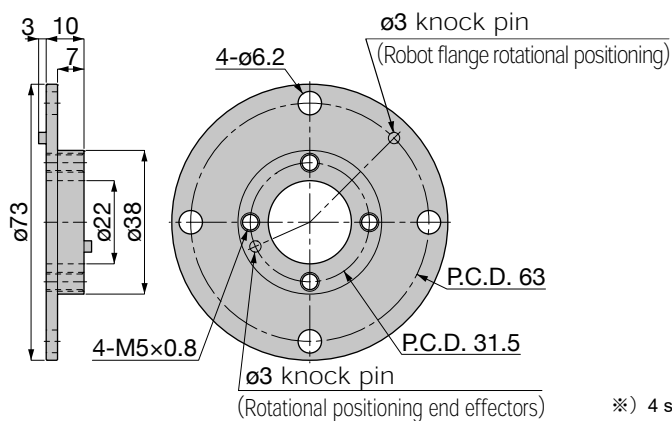


※) 4 socket head screws (M6 $\times$ 8) attached

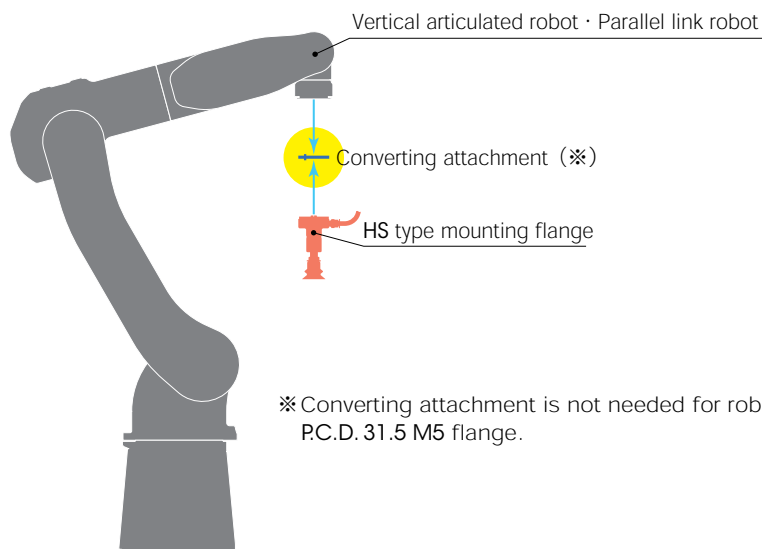
■ For robot with P.C.D. 63 M6 flange

Model : [RFA002M09C](#)

Weight : 61g



※) 4 socket head screws (M6 $\times$ 8) attached



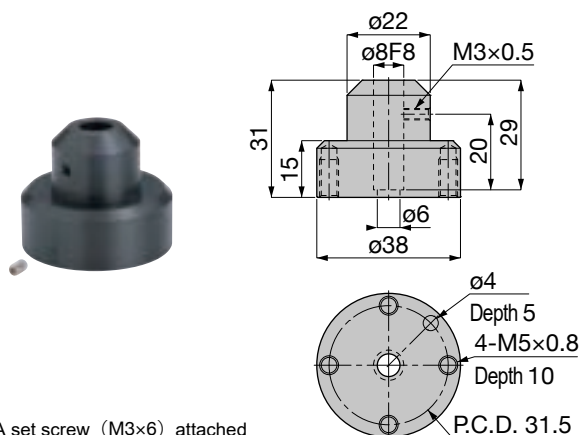
※ Converting attachment is not needed for robots with P.C.D. 31.5 M5 flange.

Dimensions of Converting attachment for SCARA robot

■ For robot with $\varnothing 8$ axis

Model : **SCH001M01**

Weight : 56g

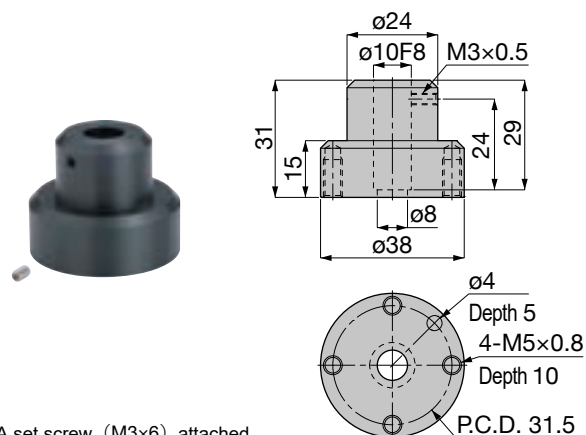


※) A set screw (M3x6) attached

■ For robot with $\varnothing 10$ axis

Model : **SCH001M02**

Weight : 57g

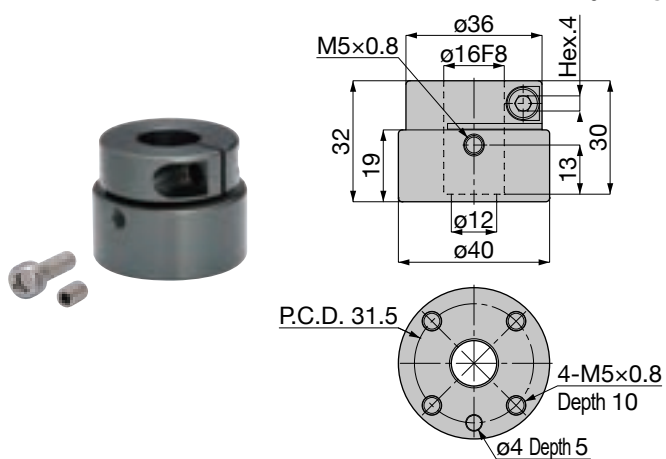


※) A set screw (M3x6) attached

■ For robot with $\varnothing 16$ axis

Model : **SCH001M04**

Weight : 82g

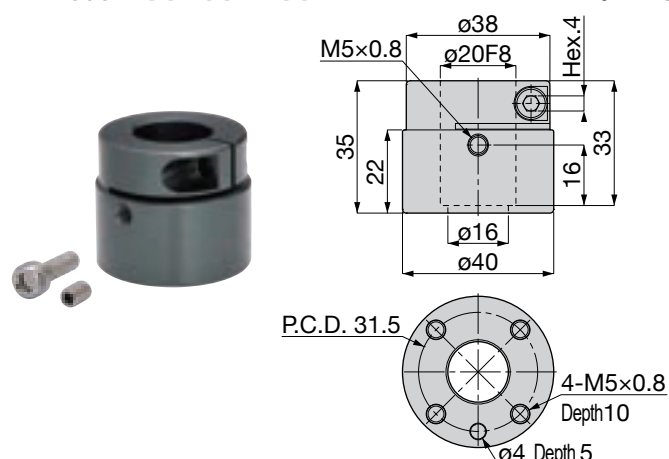


※) A socket head screw (M5x15) and a set screw (M5x8) attached

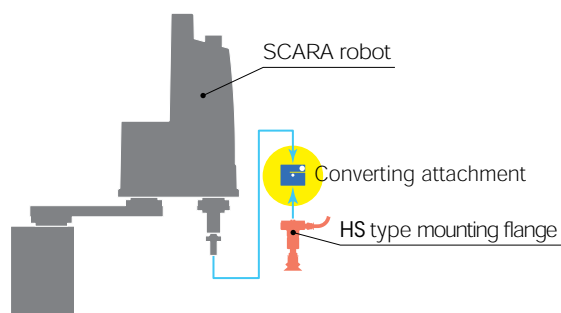
■ For robot with $\varnothing 20$ axis

Model : **SCH001M05**

Weight : 85g



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



Suction



Gripping