

180° Angular Type Air Gripper Cam Type

MHY2 Series

ø10, ø16, ø20, ø25

How to Order

MHY 2 - 16 D 2 - M9BW

Number of fingers

2	2 fingers
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Bore size

10	10 mm
16	16 mm
20	20 mm
25	25 mm

Action

D	Double acting
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Auto switch

Nil	Without auto switch (Built-in magnet)
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Number of auto switches

Nil	2 pcs.
S	1 pc.
n	n pc.

Finger option

Nil: Standard tapped 2: Through-holes in opening/closing direction

• **Made to Order**
Refer to page 705 for details.

• **For the applicable auto switch model, refer to the table below.**

Applicable Auto Switches / Refer to pages 797 to 850 for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch model		Lead wire length (m)*				Pre-wired connector	Applicable load	
					DC	AC	Electrical entry direction		0.5 (Nil)	1 (M)	3 (L)	5 (Z)			
							Perpendicular	In-line							
Solid state auto switch	—	Grommet	Yes	3-wire(NPN)	24 V	—	M9NV	M9N	●	●	●	○	○	IC circuit	Relay, PLC
				3-wire(PNP)			M9PV	M9P	●	●	●	○	○		
				2-wire			M9BV	M9B	●	●	●	○	○		
	3-wire(NPN)			5 V, 12 V	M9NVW		M9NW	●	●	●	○	○	IC circuit		
	3-wire(PNP)				M9PWW		M9PW	●	●	●	○	○			
	2-wire				M9BWW		M9BW	●	●	●	○	○			
	Water resistant (2-color indicator)			3-wire(NPN)	5 V, 12 V		M9NAV**	M9NA**	○	○	●	○	○	IC circuit	
				3-wire(PNP)			M9PAV**	M9PA**	○	○	●	○	○		
		2-wire	M9BAV**	M9BA**		○	○	●	○	○					

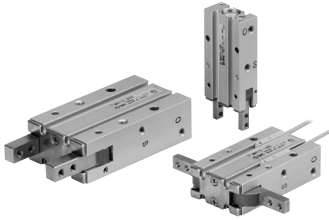
** Water resistant type auto switches can be mounted on the above models, but in such case SMC cannot guarantee water resistance.

* Lead wire length symbols: 0.5 m Nil (Example) M9NW
1 m M (Example) M9NWM
3 m L (Example) M9NWL
5 m Z (Example) M9NZZ

* Auto switches marked with a "○" symbol are produced upon receipt of order.

Note 1) When using the 2-color indicator type, please make the setting so that the indicator is lit in red to ensure the detection at the proper position of the air gripper.

Specifications

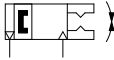


Fluid	Air
Operating pressure	0.1 to 0.6 MPa
Ambient and fluid temperature	-10 to 60°C
Repeatability	±0.2 mm
Max. operating frequency	60 c.p.m.
Lubrication	Not required
Action	Double acting
Auto switch (Option) ^{Note)}	Solid state auto switch (3-wire, 2-wire)

Note) Refer to pages 797 to 850 for further information on auto switches.

Symbol

Double acting: External grip



Model

Model	Bore size (mm)	Effective gripping force (1) (N·m)	Opening/Closing angle (Both sides)		Weight (2) (g)
			Opening side	Closing side	
MHY2-10D	10	0.16	180°	-3°	70
MHY2-16D	16	0.54			150
MHY2-20D	20	1.10			320
MHY2-25D	25	2.28			560

Note 1) At the pressure of 0.5 MPa

Note 2) Except auto switch



Made to Order

(Refer to pages 725 to 748 for details.)

Symbol	Specifications/Description
-X4	Heat resistance (100°C)
-X5	Fluororubber seal
-X50	Without magnet
-X53	EPDM for seals, Fluorine grease
-X63	Fluorine grease
-X79	Grease for food processing machines, Fluorine grease
-X79A	Grease for food processing machines
-X81A	Anti-corrosive treatment of finger

• Refer to "How to Select the Applicable Model" on page 700.

• Refer to pages 700 and 701 for the details on effective holding force and allowable overhanging distance.

Moisture Control Tube IDK Series



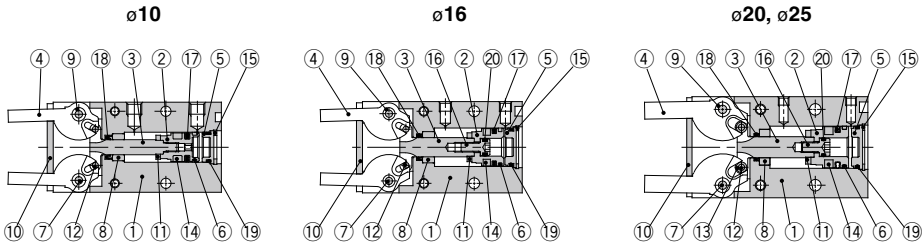
When operating an actuator with a small diameter and a short stroke at a high frequency, the dew condensation (water droplet) may occur inside the piping depending on the conditions.

Simply connecting the moisture control tube to the actuator will prevent dew condensation from occurring. For details, refer to [the IDK series in the Best Pneumatics No.6](#).

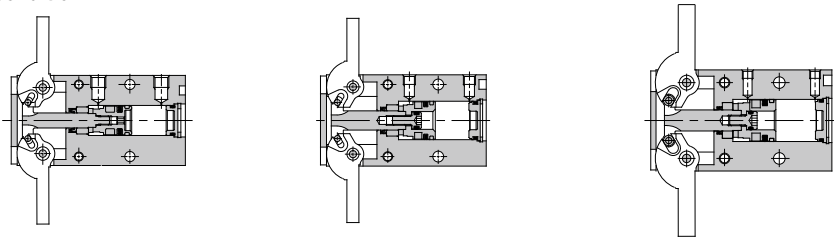
MHY2 Series

Construction

Closed condition



Open condition



Component Parts

No.	Description	Material	Note
1	Body	Aluminum alloy	Hard anodized
2	Piston	ø10: Stainless steel ø16 to 25: Aluminum alloy	ø16 to 25: Chromated
3	Joint	Stainless steel	Heat treated
4	Finger	Stainless steel	Heat treated
5	Cap	Resin	
6	Wear ring	Resin	
7	Shaft	Stainless steel	Nitriding
8	Bushing A	Sintered alloy steel	
9	Bushing B	Sintered alloy steel	
10	End plate	Stainless steel	

No.	Description	Material	Note
11	Bumper	Urethane rubber	
12	Needle roller	High carbon chrome bearing steel	
13	Joint roller	Carbon steel	Nitriding
14	Rubber magnet	Synthetic rubber	
15	Type C retaining ring	Carbon steel	Phosphate coated
16	Piston bolt	Stainless steel	
17	Piston seal	NBR	
18	Rod seal	NBR	
19	Gasket	NBR	
20	Gasket	NBR	

Replacement Parts

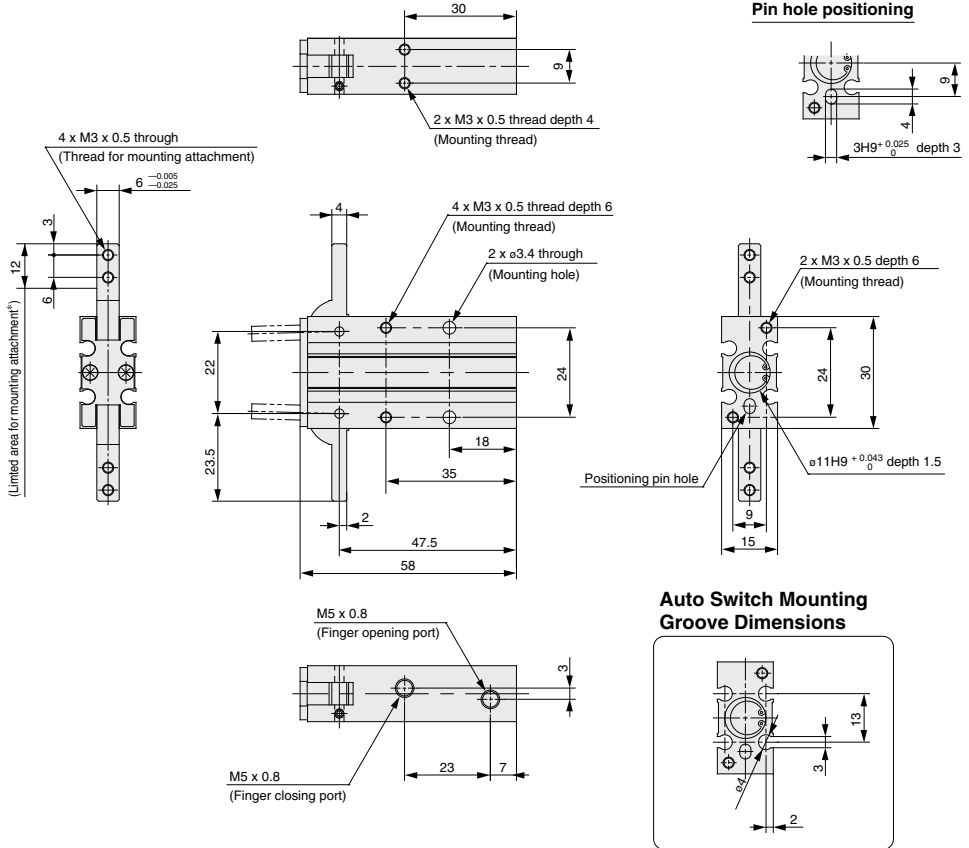
Description		MHY2-10	MHY2-16	MHY2-20	MHY2-25	Main parts
Seal kit		MHY10-PS	MHY16-PS	MHY20-PS	MHY25-PS	<ø10> ①⑦⑧⑨ <ø16, ø20, ø25> ①⑦⑧⑨②③
Finger assembly	MHY2-□D	MHY-A1001	MHY-A1601	MHY-A2001	MHY-A2501	④⑨
	MHY2-□D2	MHY-A1001-2	MHY-A1601-2	MHY-A2001-2	MHY-A2501-2	
Joint assembly		MHY-A1002	MHY-A1602	MHY-A2002	MHY-A2502	<ø10, ø16> ③⑫ <ø20, ø25> ③⑫⑬
Piston assembly		MHY-A1003	MHY-A1603	MHY-A2003	MHY-A2503	<ø10> ②⑥⑪⑭ <ø16, ø20, ø25> ②⑥⑪⑭⑯

* Order 1 piece of finger assembly per one unit.

Replacement part/grease pack part no. : MH-G04 (30 g)

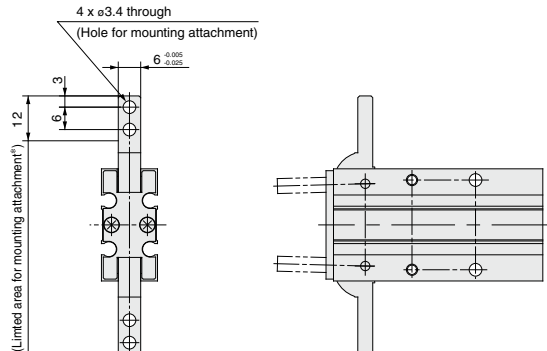
Dimensions

MHY2-10D



MHY2-10D2

Opening/Closing direction
through-hole type



* Do not extend the attachment from limited area for mounting to avoid interference with the attachment or main body.