

Parallel Type Air Gripper (Standard) Compact Series (Without Auto Switch)

MHZA2-6/MHZAJ2-6 Series

ø6

How to Order

MHZA 2 — 6 D

MHZAJ 2 — 6 D

With dust cover

Number of fingers

2 2 fingers

Bore size

6 6 mm

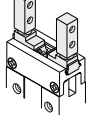
Action

D	Double acting
S	Single acting (Normally open)
C	Single acting (Normally closed)

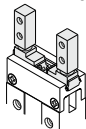
Finger option

[Standard]

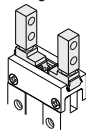
Nil: Basic type



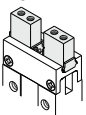
1: Side tapped mounting



2: Through-holes in opening/closing direction



3: Flat type fingers



Made to Order

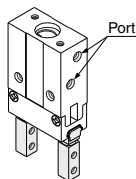
Refer to page 487 for details.

Dust cover type

Nil	Chloroprene rubber (CR)
F	Fluororubber (FKM)
S	Silicone rubber (SI)

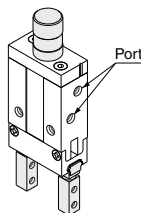
Body option

Nil: Basic type



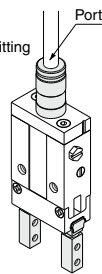
E: End boss type

Side ported
(Double acting/Single acting)



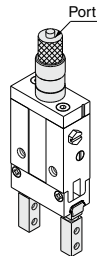
K: End boss type

Axial ported
with ø4 One-touch fitting
(Single acting)



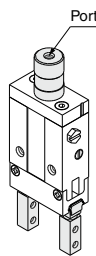
H: End boss type

Axial ported
with ø4 hose nipple
(Single acting)



M: End boss type

Axial ported
with M3 port
(Single acting)



Parallel Type Air Gripper/Standard Type

MHZ2 Series

ø6, ø10, ø16, ø20, ø25, ø32, ø40

How to Order

Bore size

ø6

MHZ2-6D-M9BW

Number of fingers
2 2 fingers

Bore size
6 6 mm

Action

D	Double acting
S	Single acting (Normally open)
C	Single acting (Normally closed)

Made to Order
Refer to page 499 for details.

Number of auto switches

Nil	2 pcs.
S	1 pc.

Auto switch

Nil Without auto switch (Built-in magnet)

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

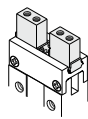
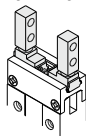
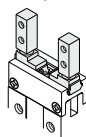
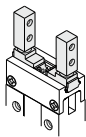
Finger option

[Standard]
Nil: Basic type

1: Side tapped mounting

2: Through-holes in opening/closing direction

3: Flat type fingers



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 [Web Catalog](#).



Applicable Auto Switches

Refer to pages 929 to 983 for further information on the auto switch.

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	5 V, 12 V	—	M9NV	M9N	●	●	●	○	○	IC circuit	Relay, PLC		
				F8N				—	●	—	●	○	—					
				M9PV				M9P	●	●	●	○	○					
				F8P				—	●	—	●	○	—					
				M9BV				M9B	●	●	●	○	○					
				F8B				—	●	—	●	○	—					
	Diagnosis (2-color indicator)			3-wire (NPN)	5 V, 12 V	12 V	—	M9NVV	M9NW	●	●	●	○	○	IC circuit			
				3-wire (PNP)				M9PWV	M9PW	●	●	●	○	○				
				2-wire				M9BWW	M9BW	●	●	●	○	○			—	
				3-wire (NPN)				M9NAV**	M9NA**	○	○	●	○	○				
				3-wire (PNP)				M9PAV**	M9PA**	○	○	●	○	○				IC circuit
				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) M9NZW

* Solid state auto switches marked with ○ are produced upon receipt of order.

Note 1) When using a D-F8□ switch, mount it at a distance of 10 mm or more from magnetic substances such as iron, etc.

Note 2) 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.

How to Order

Bore size

ø10 to ø25

MHZ2 - **16** **D** - **M9BW** -

Number of fingers
2 2 fingers

Bore size	
10	10 mm
16	16 mm
20	20 mm
25	25 mm

Action	
D	Double acting
S	Single acting (Normally open)
C	Single acting (Normally closed)

Made to Order
Refer to page 499 for details.

Auto switch

Nil Without auto switch (Built-in magnet)

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

Number of auto switches	
Nil	2 pcs.
S	1 pc.
n	n pc.

Finger position/option

Standard

(MHQG2 compatible type)

Nil: Basic type



1: Side tapped mounting



2: Through-holes in opening/closing direction



3: Flat type fingers

The flat type fingers do not have standard and narrow options.
When MHQG2/MHQ2 compatible types are required, see the -X51 made-to-order specifications on page 548.



Narrow type

(MHQ2 compatible type)

N: Basic type



N1: Side tapped mounting

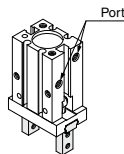


N2: Through-holes in opening/closing direction

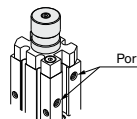


Body option

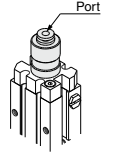
Nil: Basic type



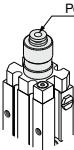
E: End boss type
Side ported
(Double acting/
Single acting)



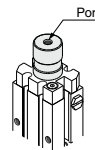
W: End boss type
Axial ported
ø4 One-touch fitting
for coaxial tubing
(Double acting)



K: End boss type
Axial ported
with ø4 One-touch
fitting
(Single acting)



M: End boss type
Axial ported
with M5 port
(Single acting)



Applicable Auto Switches/Refer to pages 929 to 983 for further information on the auto switch.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch model		Lead wire length (m) *				Applicable model				Pre-wired connector	Applicable load	
					DC	AC	Electrical entry direction		0.5 (Nil)	1 (M)	3 (L)	5 (Z)	ø10	ø16	ø20	ø25			
							Perpendicular	In-line											
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	5 V, 12 V	—	M9NV	M9N	●	●	●	○	●	●	●	●	○	IC circuit	Relay, PLC
				3-wire (PNP)			F8N	—	●	—	●	○	—	●	●	●	—		
				2-wire	12 V		M9PV	M9P	●	●	●	○	●	●	●	●	○	—	
							F8P	—	●	—	●	○	—	●	●	●	—		
							M9BV	M9B	●	●	●	○	●	●	●	●	○	—	
							F8B	—	●	—	●	○	—	●	●	●	—		
	Diagnosis (2-color indicator)	Grommet	Yes	3-wire (NPN)	5 V, 12 V	—	M9NVW	M9NW	●	●	●	○	●	●	●	●	○	IC circuit	
	3-wire (PNP)			M9PVW			M9PW	●	●	●	○	●	●	●	●	○			
	2-wire			12 V	M9BVW		M9BW	●	●	●	○	●	●	●	●	○	—		
	3-wire (NPN)			5 V, 12 V	M9NAV**		M9NA**	○	○	●	○	●	●	●	●	○	IC circuit		
	3-wire (PNP)				M9PAV**		M9PA**	○	○	●	○	●	●	●	●	○			
	Water resistant (2-color indicator)			Grommet	Yes		2-wire	12 V	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) M9NLW

5 m..... Z (Example) M9NZW

* Solid state auto switches marked with ○ 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.

Note 2) Through-hole mounting is not possible when using the auto switch at the square groove on the side.

Note 3) When the product is ordered with auto switch, only MHZ2-10 is shipped with the auto switch mounting brackets. When ordering an auto switch for an MHZ2-10 separately, an auto switch mounting bracket (BMG2-012) is also required. Be sure to order it separately. When the auto switch is used at the square groove on the side with MHZ2-16 to 25, mounting brackets (BMG2-012) are required. Please order them separately. Refer to page 545 for the auto switch mounting brackets.

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 [Web Catalog](#).

MHZ2 Series

How to Order

Bore size

ø32 to ø40 **MHZ2-32 D** - **M9BW** -

Number of fingers
2 2 fingers

Bore size
32 32 mm
40 40 mm

Action
D Double acting
S Single acting (Normally open)
C Single acting (Normally closed)

Made to Order
Refer to page 499 for details.

Number of auto switches
Nil 2 pcs.
S 1 pc.
n n pc.

Auto switch
Nil Without auto switch (Built-in magnet)
* For the applicable auto switch model, refer to the table below.

Finger option

[Standard]
Nil: Basic type

1: Side tapped mounting

2: Through-holes in opening/closing direction

3: Flat type fingers

Applicable Auto Switches/Refer to pages 929 to 983 for further information on the auto switch.

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)	5 V, 12 V	—	M9NV	M9N	●	●	●	○	○	IC circuit	Relay, PLC	
				3-wire (PNP)			M9PV	M9P	●	●	●	○	○			
				2-wire			12 V	M9BV	M9B	●	●	●	○			○
				3-wire (NPN)			5 V, 12 V	M9NVW	M9NW	●	●	●	○			○
				3-wire (PNP)	12 V		M9PWV	M9PW	●	●	●	○	○			
				2-wire	5 V, 12 V		M9BWW	M9BW	●	●	●	○	○			
	Diagnosis (2-color indicator) Water resistant (2-color indicator)	Grommet	Yes	3-wire (NPN)	5 V, 12 V	—	M9NAV**	M9NA**	○	○	●	○	○	IC circuit		
				3-wire (PNP)			M9PAV**	M9PA**	○	○	●	○	○			
				2-wire			12 V	M9BAV**	M9BA**	○	○	●	○			○
				3-wire (NPN)			5 V, 12 V	M9NAV**	M9NA**	○	○	●	○			○
				3-wire (PNP)	12 V		M9PAV**	M9PA**	○	○	●	○	○			
				2-wire	5 V, 12 V		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) M9NZW

* Solid state auto switches marked with ○ 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.

Note 2) Through-hole mounting is not possible when using the auto switch at the square groove on the side.

Note 3) When the auto switch is used at the square groove on the side with MHZ2-32 and 40, mounting brackets (BMG2-012) are required. Please order them separately. Refer to page 545 for the auto switch mounting brackets.

Parallel Type Air Gripper/Long Stroke Type

MHZL2 Series

ø10, ø16, ø20, ø25

How to Order

MHZL2-16 D - M9BW

Number of fingers
2 2 fingers

Bore size
10 10 mm
16 16 mm
20 20 mm
25 25 mm

Action
D Double acting
S Single acting (Normally open)
C Single acting (Normally closed)

Finger option
Nil: Basic type
1: Side tapped mounting
2: Through-holes in opening/closing direction
3: Flat type fingers

Auto switch
Nil Without auto switch (Built-in magnet)
* For the applicable auto switch model, refer to the table below.

Body option
Nil: Basic type
E: End boss type Side ported (Double acting/Single acting)
W: End boss type Axial ported with ø4 One-touch fitting for coaxial tubing (Double acting)
K: End boss type Axial ported with ø4 One-touch fitting (Single acting)
M: End boss type Axial ported with M5 port (Single acting)

Made to Order
Refer to page 515 for details.

Number of auto switches
Nil 2 pcs.
S 1 pc.
n n pc.

Applicable Auto Switches Refer to pages 929 to 983 for further information on the auto switch.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch model		Lead wire length (m) *				Applicable model				Pre-wired connector	Applicable load		
					DC	AC	Electrical entry direction		0.5 (Nil)	1 (M)	3 (L)	5 (Z)	ø10	ø16	ø20	ø25				
							Perpendicular	In-line												
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	24 V	5V, 12 V	—	M9NV	M9N	●	●	●	○	●	●	●	○	IC circuit	Relay, PLC	
				3-wire (PNP)				F8N	—	●	—	●	○	—	●	●	—			
				2-wire				M9PV	M9P	—	●	—	●	○	—	●	●			○
				3-wire (NPN)				F8P	—	●	—	●	○	—	●	●	—			
				3-wire (PNP)				M9BV	M9B	—	●	—	●	○	—	●	●			○
				2-wire				F8B	—	●	—	●	○	—	●	●	—			
	Diagnosis (2-color indicator)	Grommet	Yes	3-wire (NPN)	24 V	5V, 12 V	—	M9NVV	M9NW	●	●	●	○	●	●	●	○	IC circuit		
				3-wire (PNP)				M9PWV	M9PW	●	●	●	○	●	●	○				
				2-wire				M9BWW	M9BW	●	●	●	○	●	●	○				
				3-wire (NPN)				M9NAV**	M9NA**	○	○	○	●	●	●	○				
				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

* Solid state auto switches marked with ○ are produced upon receipt of order.

1 m..... M (Example) M9NWM

3 m..... L (Example) M9NWL

5 m..... Z (Example) M9NWZ

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.

Note 2) Through-hole mounting is not possible when using the auto switch at the square groove on the side.

Note 3) When the product is ordered with auto switch, only MHZL2-10 is shipped with the auto switch mounting brackets. When ordering an auto switch for an MHZ2-10 separately, an auto switch mounting bracket (BMG2-012) is also required. Be sure to order it separately. When the auto switch is used at the square groove on the side with MHZL2-16 to 25, mounting brackets (BMG2-012) are required. Order them separately. Refer to page 545 for the auto switch mounting brackets.

Parallel Type Air Gripper with Dust Cover

MHZJ2 Series

ø6, ø10, ø16, ø20, ø25, ø32, ø40

How to Order

MHZJ2-16 D - M9BW

Number of fingers
2 | 2 fingers

Bore size

6	6 mm
10	10 mm
16	16 mm
20	20 mm
25	25 mm

Action

D	Double acting
S	Single acting (Normally open)
C	Single acting (Normally closed)

Body option

* ø32, ø40: Made to Order
(For details, refer to page 539.)

* ø6 is only applicable with basic type.

Made to Order
Refer to page 529 for details.

Number of auto switches

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

Auto switch

Nil	Without auto switch (Built-in magnet)
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* For the applicable auto switch model, refer to the table below.

Dust cover type

Nil	Chloroprene rubber (CR)
F	Fluororubber (FKM)
S	Silicone rubber (Si)

Nil: Basic type

E: End boss type Side ported (Double acting /Single acting)

W: End boss type Axial ported with ø4 One-touch fitting for coaxial tubing (Double acting)

K: End boss type Axial ported with ø4 One-touch fitting for coaxial tubing (Single acting)

M: End boss type Axial ported with M5 port (Single acting)

Applicable Auto Switches/Refer to pages 929 to 983 for further information on the auto switch.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch model		Lead wire length (m) *					Applicable model					Pre-wired connector	Applicable load	
					DC	AC	Electrical entry direction		0.5 (Nil)	1 (M)	3 (L)	5 (Z)	ø6	ø10	ø16	ø20	ø25				
							Perpendicular	In-line													
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	5 V, 12 V	24 V	—	M9NV	M9N	●	●	○	●	●	●	●	○	IC circuit	Relay, PLC		
				F8N				—	●	—	○	—	●	●	●	—	—				
				M9PV				M9P	●	●	●	○	●	●	●	●	○			—	
				F8P				—	●	—	○	—	●	●	●	—	—				
				M9BV				M9B	●	●	○	—	●	●	●	●	○			—	
				F8B				—	●	—	○	—	●	—	●	●	—			—	
	Diagnosis (2-color indicator)	Grommet	Yes	3-wire (NPN)	5 V, 12 V			M9NWV	M9NW	●	●	○	—	●	●	●	●	○	IC circuit		
				M9P WV				M9PW	●	●	○	—	●	●	●	●	○				
				M9B WV				M9BW	●	●	○	—	●	●	●	●	○	—			
				M9NAV**				M9NA**	○	○	○	○	●	●	●	●	○	IC circuit			
				M9PAV**				M9PA**	○	○	○	○	●	●	●	●	○				
				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) M9NWZ

* Solid state auto switches marked with ○ 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.

Note 2) When using a D-F8□ switch on sizes ø6, mount it at a distance of 10 mm or more from magnetic substances such as iron, etc.