

Parallel Style Air Gripper/Long Stroke Type

Series MHZL2

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)

Auto switch
Nil Without auto switch (Built-in magnet)

Number of auto switches

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

Made to Order
Refer to page 415 for details.

Finger option

Nil: Basic type

1: Side tapped mounting

2: Through-holes in opening/closing direction

3: Flat type fingers

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)

Applicable Auto Switch/Refer to pages 761 to 809 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		
							Electrical entry direction		0.5 (Nil)	1 (M)	3 (L)	5 (Z)	ø10	ø16	ø20	ø25				
					DC	AC	Perpendicular	In-line												
Solid state switch	—	Grommet	Yes	3-wire (NPN)	24 V	5V, 12 V	—	M9NV	M9N	●	●	●	○	●	●	●	●	○	IC circuit	Relay PLC
				F8N				—	●	—	●	○	—	●	●	●	—			
				M9PV				M9P	●	●	●	○	●	●	●	●	○			
				F8P				—	●	—	●	○	—	●	●	●	—			
	Diagnosis (2-color indicator)	Grommet	Yes	2-wire	24 V	12 V	—	M9BV	M9B	●	●	●	○	●	●	●	●	○	—	
				F8B				—	●	—	●	○	—	●	●	●	—			
				M9NWV				M9NW	●	●	●	○	●	●	●	●	○	IC circuit		
				M9PWV				M9PW	●	●	●	○	●	●	●	●	○			
				M9BWV				M9BW	●	●	●	○	●	●	●	●	○		—	

* 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) Take note of hysteresis with 2-color indication type switches. Refer to page 438 for detailed auto switch specifications.

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

Note 3) Only MHZ2-10 is shipped with the auto switch mounting brackets. When the auto switch is used at the square groove on the side with MHZ2-16 to 25, mounting brackets are required. Order them separately. Refer to page 439 for the auto switch mounting brackets.

Parallel Style Air Gripper/Long Stroke Type *Series MHZL2*



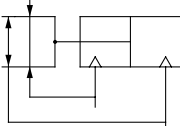
Specifications

Fluid		Air	
Operating pressure	Double acting	$\phi 10$: 0.2 to 0.7 MPa $\phi 16$ to $\phi 25$: 0.1 to 0.7 MPa	
	Single acting	$\phi 10$: 0.35 to 0.7 MPa $\phi 16$ to $\phi 25$: 0.25 to 0.7 MPa	
Ambient and fluid temperature		-10 to 60°C	
Repeatability		± 0.01 mm	
Max. operating frequency		120 c.p.m.	
Lubrication		Not required	
Action		Double acting/Single acting	
Auto switch (Option) ^{Note)}		Solid state auto switch (3-wire, 2-wire)	

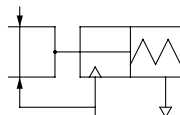
Note) Refer to pages 761 to 809 for further information on auto switches.

JIS Symbol

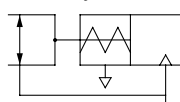
Double acting



Single acting type, Normally open



Single acting type, Normally closed



Refer to pages 436 to 440 for the specifications with auto switch.

- Auto switch installation examples and mounting positions
- Auto switch hysteresis
- Auto switch mounting
- Protrusion of auto switch from edge of body



Made to Order

(Refer to pages 683 to 713 for details.)

Symbol	Specifications/Description
-X4	Heat resistance (100°C)
-X5	Fluororubber seal
-X7	Closing direction spring assist
-X12	Opening direction spring assist
-X50	Without magnet
-X53	EPDM seal/Fluorine grease
-X56	Axial ported type
-X63	Fluorine grease
-X79	Grease for food

Model

Action		Model	Bore size (mm)	Gripping force ^{Note 1)}		Opening/ Closing stroke (Both sides) (mm)	Mass ^{Note 2)} (g)
				Gripping force per finger Effective value (N)			
				External	Internal		
Double acting		MHZL2-10D	10	11	17	8	60
		MHZL2-16D	16	34	45	12	135
		MHZL2-20D	20	42	66	18	270
		MHZL2-25D	25	65	104	22	470
Single acting	Normally open	MHZL2-10S	10	7.1	—	8	70
		MHZL2-16S	16	27		12	145
		MHZL2-20S	20	33		18	290
		MHZL2-25S	25	50		22	515
	Normally closed	MHZL2-10C	10	—	13	8	70
		MHZL2-16C	16		38	12	140
		MHZL2-20C	20		57	18	290
		MHZL2-25C	25		85	22	515

Note 1) Values based on pressure of 0.5 MPa, gripping point L = 20 mm, at center of stroke.

Note 2) Values excluding mass of auto switch.

Option

●Body Option/End Boss Type

Symbol	Piping port location	Type of piping port				Applicable model	
		MHZL2-10	MHZL2-16	MHZL2-20	MHZL2-25	Double acting	Single acting
Nil	Basic type	M3 x 0.5	M5 x 0.8			●	●
E	Side ported	M3 x 0.5	M5 x 0.8			●	●
W	Axial ported	With ø4 One-touch fitting for coaxial tubing				●	—
K	Axial ported	With ø4 One-touch fitting				—	●
M	Axial ported	M5 x 0.8				—	●

* For detailed body option specifications, refer to option specifications on pages 422 and 423.

MHZ

MHF

MHL

MHR

MHK

MHS

MHC

MHT

MHY

MHW

-X□

MRHQ

MA

D-□