

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

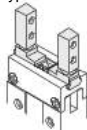
Action

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

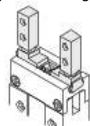
Finger option

[Standard]

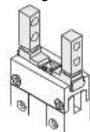
Nil: Basic type



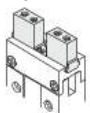
1: Side tapped mounting



2: Through-holes in opening/closing direction



3: Flat type fingers



• Made to Order

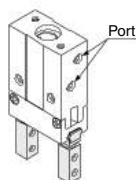
Refer to page 399 for details.

• Dust cover type

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

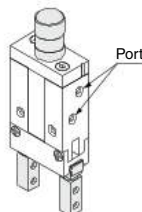
• Body option

Nil: Basic type



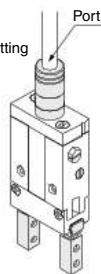
E: End boss type

Side ported
(Double acting/Single acting)



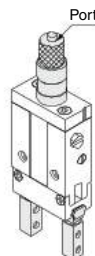
K: End boss type

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



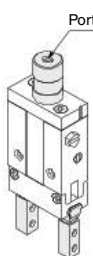
H: End boss type

Axial ported
with ø4 hose nipple
(Single acting)



M: End boss type

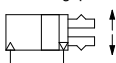
Axial ported
with M3 port
(Single acting)



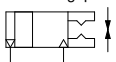


Symbol

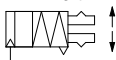
Double acting:
Internal grip



Double acting:
External grip



Single acting/
Normally closed:
Internal grip



Single acting/
Normally open:
External grip



Made to Order
[Click here for details](#)

Symbol	Specifications/Description
-X4	Heat resistance (100°C)
-X5	Fluororubber seal
-X12	Opening direction spring assist
-X53	EPDM seal/Fluorine grease
-X56	Axial ported type
-X63	Fluorine grease
-X64	Finger: Side tapped mounting
-X65	Finger: Through-hole mounting
-X79	Grease for food processing machines, Fluorine grease
-X79A	Grease for food processing machines
-X81A	Anti-corrosive treatment of finger
-X81B	Anti-corrosive treatment of finger and guide

Specifications

Operating pressure	Fluid		Air
	Double acting		0.15 to 0.7 MPa
	Single acting	Normally open Normally closed	0.3 to 0.7 MPa
Ambient and fluid temperature			-10 to 60°C
Repeatability			±0.01 mm
Max. operating frequency			180 c.p.m.
Lubrication			Not required
Action			Double acting/Single acting

* Use the gripper with dust cover when used in a place where there may be dust.

Model

Action	Model	Bore size (mm)	Gripping force ^{Note)}		Opening/ Closing (Both sides) (mm)	Weight (g)
			Gripping force per finger Effective value (N)			
			External	Internal		
Double acting	MHZA2-6D	6	3.3	6.1	4	26
	MHZAJ2-6D	6			4	27
Single acting	MHZA2-6S	6	1.9	—	4	26
	MHZAJ2-6S	6			4	27
	MHZA2-6C	6	—	3.7	4	26
	MHZAJ2-6C	6			4	27

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

Option

● Body Option/End Boss Type

Symbol	Piping port location	Type of piping port	Applicable model	
		MHZA2-6/MHZAJ2-6	Double acting	Single acting
Nil	Basic type	M3 x 0.5	●	●
E	Side ported	M3 x 0.5	●	●
K	Axial ported	With ø4 One-touch fitting	—	●
H		With ø4 hose nipple	—	●
M		M3 x 0.5	—	●

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](#).

MHZA2-6/MHZAJ2-6 Series

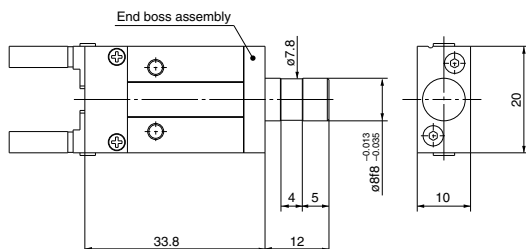
Body Option: End Boss Type

Applicable Model

Symbol	Piping port location	Type of piping port		Applicable model	
		MHZA2	MHZAJ2	Double acting	Single acting
E	Side ported	M3 x 0.5		●	●
H		With ø4 hose nipple		—	●
K		With ø4 One-touch fitting		—	●
M		M3 x 0.5		—	●

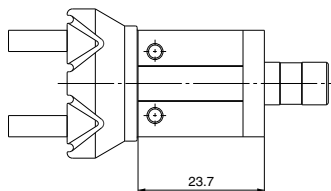
Side Ported [E]

MHZA2-6□□E



* Specifications and dimensions other than the above are the same as the basic type.

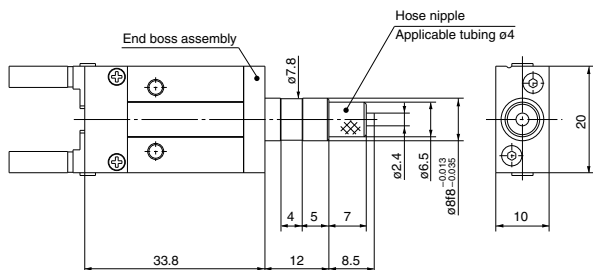
MHZAJ2-6□□E□



* Specifications and dimensions other than the above are the same as the basic type or the end boss dimensions of the MHZA type.

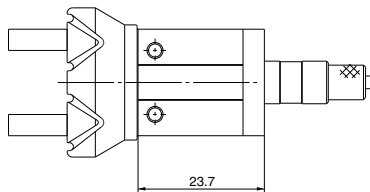
Axial Ported (with hose nipple) [H]

MHZA2-6^S□□H



* Specifications and dimensions other than the above are the same as the basic type.

MHZAJ2-6^S□□H□



* Specifications and dimensions other than the above are the same as the basic type or the end boss dimensions of the MHZA type.

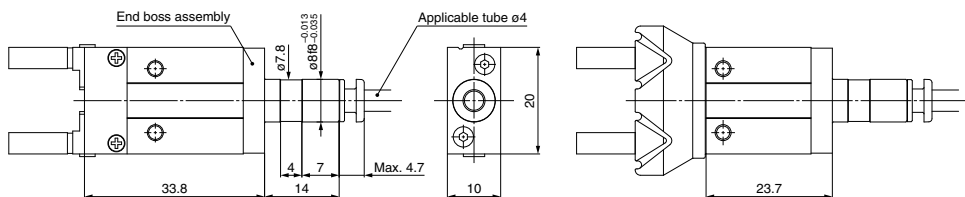
Applicable Tubing

Description/ Model	Nylon tubing	Soft nylon tubing	Polyurethane tubing	Polyurethane coil tubing
Specifications	T0425	TS0425	TU0425	TCU0425B-1
Outside diameter (mm)	4	4	4	4
Max. operating pressure (MPa)	1.0	0.8	0.5	0.5
Min. bending radius (mm)	13	12	10	—
Operating temperature (°C)	-20 to 60	-20 to 60	-20 to 60	-20 to 60
Material	Nylon 12	Nylon 12	Polyurethane	Polyurethane

Refer to "Pneumatic Piping Equipment (CAT. E50)" regarding One-touch fittings and tubing.

MHZA2-6/MHZAJ2-6 Series

Axial Ported (with One-touch fitting) [K]

MHZA2-6 SC ☐ KMHZAJ2-6^S_C K□

* Specifications and dimensions other than the above are the same as the basic type.

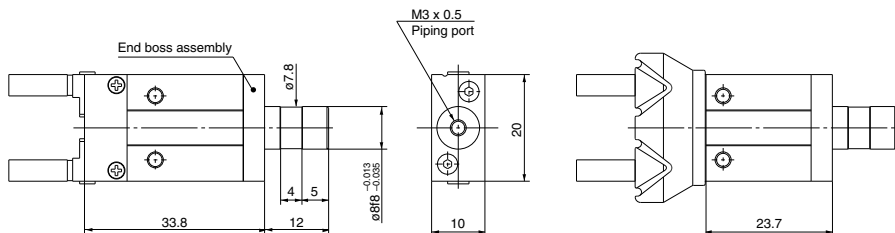
* Specifications and dimensions other than the above are the same as the basic type or the end boss dimensions of the MHZA type.

Applicable Tubing

Description/ Specifications	Nylon tubing	Soft nylon tubing	Polyurethane tubing	Polyurethane coil tubing
	T0425	TS0425	TU0425	TCU0425B-1
Outside diameter (mm)	4	4	4	4
Max. operating pressure (MPa)	1.0	0.8	0.5	0.5
Min. bending radius (mm)	13	12	10	—
Operating temperature (°C)	−20 to 60	−20 to 60	−20 to 60	−20 to 60
Material	Nylon 12	Nylon 12	Polyurethane	Polyurethane

Refer to "Pneumatic Piping Equipment (CAT. E50)" regarding One-touch fittings and tubing.

Axial Ported (with M3 port) [M]

MHZA2-6^S_C□MMHZAJ2-6^S_C M□

* Specifications and dimensions other than the above are the same as the basic type.

* Specifications and dimensions other than the above are the same as the basic type or the end boss dimensions of the MHZA type.

Weight

Model	End boss type (Symbol)			
	E	H	K	M
MHZA2-6□□	28	28	28	28
MHZAJ2-6□□	29	29	29	29

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 411 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

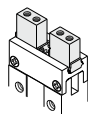
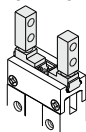
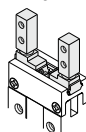
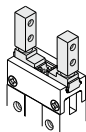
[Standard]

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 IDK series in the Best Pneumatics No. 6](#).

Applicable Auto Switches

Refer to pages 797 to 850 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				
							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	24 V	—	M9NV	M9N	●	●	●	○	○	IC circuit	Relay, PLC		
				F8N				—	●	—	●	○	—					
				M9PV				M9P	●	●	●	○	○					
				F8P				—	●	—	●	○	—					
	Diagnosis (2-color indicator)			2-wire	12 V			M9BV	M9B	●	●	●	○	○	○		—	—
				F8B	—			●	—	●	○	—						
				3-wire (NPN)	5 V, 12 V			M9NVW	M9NW	●	●	●	○	○	IC circuit			
				M9PWV				M9PW	●	●	●	○	○					
				3-wire (PNP)				M9BWV	M9BW	●	●	●	○	○	—			
				2-wire				12 V	M9NAV**	M9NA**	○	○	●	○			○	
				Water resistant (2-color indicator)	3-wire (NPN)			5 V, 12 V	M9PAV**	M9PA**	○	○	○	●	○		IC circuit	
					3-wire (PNP)				M9BAV**	M9BA**	○	○	○	●	○			
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) M9NWL

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

* 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

MH22-16D **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)

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

Made to Order
Refer to page 411 for details.

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

Finger position/option

Standard

(MHQ2 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 MHQ2/MH22 compatible types are required, see the -X51 made-to-order specifications on page 460.



Narrow type

(MHQ2 compatible type)

N: Basic type



N1: Side tapped mounting

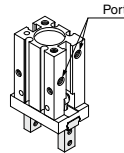


N2: Through-holes in opening/closing direction

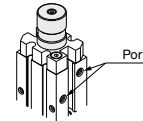


Body option

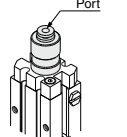
Nil: Basic type



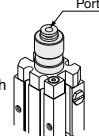
E: End boss type
Side ported
(Double acting/
Single acting)



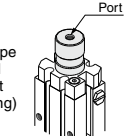
W: End boss type
Axial ported
ø4 One-touch fitting
for coaxial tubing
(Double acting)



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 797 to 850 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	24 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)	5 V, 12 V	24 V	—	M9NVV	M9NW	●	●	●	○	●	●	●	○	IC circuit		
				3-wire (PNP)				M9PWV	M9PW	●	●	●	○	●	●	●	○			
				2-wire	M9BWW			M9BW	●	●	●	○	●	●	●	○	—			
				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) 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) 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 MH22-10 is shipped with the auto switch mounting brackets. When the auto switch is used at the square groove on the side with MH22-16 to 25, mounting brackets (BMG2-012) are required. Please order them separately. Refer to page 457 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 IDK series in the Best Pneumatics No. 6](#).

How to Order

Bore size

ø32 to ø40

MHZ2-32D-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)

Number of auto switches

Nil 2 pcs.

S 1 pc.

n n pc.

Auto switch

Nil Without auto switch (Built-in magnet)

Made to Order

Refer to page 411 for details.

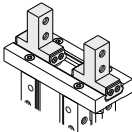
* For the applicable auto switch model, refer to the table below.

Finger option

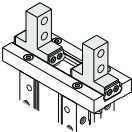
[Standard]

Nil: Basic type

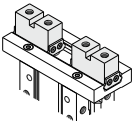
1: Side tapped mounting



2: Through-holes in opening/closing direction



3: Flat type fingers



Applicable Auto Switches

Refer to pages 797 to 850 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	
				3-wire (PNP)				F8N	—	●	—	●	○	—			
				2-wire				M9PV	M9P	●	●	●	○	○			—
								F8P	—	●	—	●	○	—			
	Diagnosis (2-color indicator)			3-wire (NPN)	5 V, 12 V	M9BV		M9B	●	●	●	○	○	IC circuit			
				3-wire (PNP)		F8B		—	●	—	●	○	—				
				2-wire		M9NVV		M9NW	●	●	●	○	○		—		
						M9PWV		M9PW	●	●	●	○	○				
	Water resistant (2-color indicator)	3-wire (NPN)	5 V, 12 V	M9BWW	M9BW	●	●	●	○	○	IC circuit						
		3-wire (PNP)		M9NAV**	M9NA**	○	○	●	○	○							
		2-wire		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) M9NWX

* 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 457 for the auto switch mounting brackets.

ø6



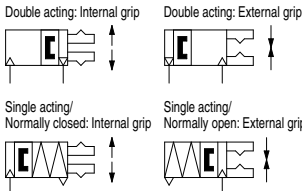
ø10 to ø25



ø32, ø40



Symbol



Refer to pages 454 to 458 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: Individual Specifications
(For details, refer to pages 459 and 460.)

Symbol	Specifications/Description
-X46	Built-in needle valve for finger speed control
-X51	MHQ2/MHQG2-compliant flat type fingers



Made to Order
[Click here 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 processing machines, Fluorine grease
-X79A	Grease for food processing machines
-X81A	Anti-corrosive treatment of finger
-X81B	Anti-corrosive treatment of finger and guide

Specifications

Fluid			Air
Operating pressure	Double acting		ø6: 0.15 to 0.7 MPa ø10: 0.2 to 0.7 MPa ø16 to ø40: 0.1 to 0.7 MPa
	Single acting	Normally open	ø6: 0.3 to 0.7 MPa ø10: 0.35 to 0.7 MPa
		Normally closed	ø16 to ø40: 0.25 to 0.7 MPa
	Ambient and fluid temperature		
Repeatability			ø6 to ø25: ±0.01 mm ø32, ø40: ±0.02 mm
Max. operating frequency			ø6 to ø25: 180 c.p.m. ø32, ø40: 60 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 797 to 850 for further information on auto switches.

* Use the gripper with dust cover when used in a place where there may be dust.

Model

Action	Model	Bore size (mm)	Gripping force ^{Note 1)}		Opening/ Closing stroke (Both sides) (mm)	Weight (g) ^{Note 2)}	
			Gripping force per finger Effective value (N)				
			External	Internal			
Double acting	MHZ2-6D	6	3.3	6.1	4	27	
	MHZ2-10D(N)	10	11	17	4	55	
	MHZ2-16D(N)	16	34	45	6	115	
	MHZ2-20D(N)	20	42	66	10	230	
	MHZ2-25D(N)	25	65	104	14	420	
	MHZ2-32D	32	158	193	22	715	
	MHZ2-40D	40	254	318	30	1275	
Single acting	Normally open	MHZ2-6S	6	1.9	—	4	27
		MHZ2-10S(N)	10	7.1		4	55
		MHZ2-16S(N)	16	27		6	115
		MHZ2-20S(N)	20	33		10	235
		MHZ2-25S(N)	25	45		14	425
		MHZ2-32S	32	131		22	760
		MHZ2-40S	40	217		30	1370
	Normally closed	MHZ2-6C	6	—	3.7	4	27
		MHZ2-10C(N)	10		13	4	55
		MHZ2-16C(N)	16		38	6	115
		MHZ2-20C(N)	20		57	10	235
		MHZ2-25C(N)	25		83	14	425
		MHZ2-32C	32		161	22	760
		MHZ2-40C	40		267	30	1370

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

Note 2) Values excluding weight of auto switch.

Option

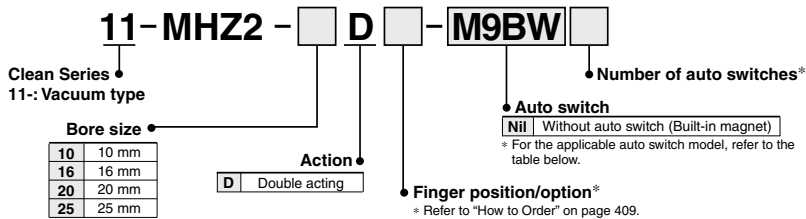
●Body Option/End Boss Type

Symbol	Piping port location	Type of piping port						Applicable model	
		MH22-6	MH22-10	MH22-16	MH22-20	MH22-25	MH22-32	MH22-40	Double 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 424 and 425.

MHZ2 Series

Clean Series: Air Gripper



Applicable Auto Switches

Refer to pages 797 to 850 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)				
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	5 V, 12 V	12 V	—	M9NV	M9N	●	●	●	○	○	IC circuit	Relay, PLC
				3-wire (PNP)				F8N	—	●	—	●	○	—		
				2-wire				M9PV	M9P	●	●	●	○	○		
				3-wire (NPN)				F8P	—	●	—	●	○	—		
	Diagnosis (2-color indicator) Water resistant (2-color indicator)	Grommet	Yes	3-wire (PNP)	5 V, 12 V	12 V	—	M9BV	M9B	●	●	●	○	○	—	
				3-wire (PNP)				F8B	—	●	—	●	○	—		
				2-wire				M9NVV	M9NW	●	●	●	○	○		
				3-wire (NPN)				M9PVV	M9PW	●	●	●	○	○		
				3-wire (PNP)				M9BWW	M9BW	●	●	●	○	○		
				2-wire				M9NAV**	M9NA**	○	○	●	○	○		
				3-wire (NPN)				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) M9NWX

* 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.

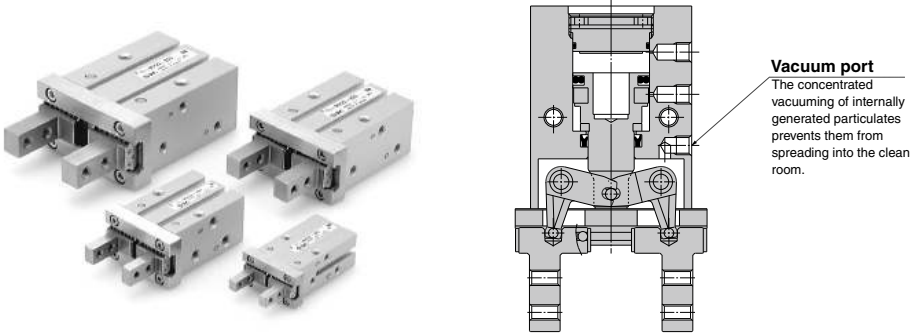
Note 2) When using a D-F8□ switch, mount it at a distance of 10 mm or more from magnetic substances such as iron, etc.

Note 3) For 11-MHZ2-10D□, the through-hole mounting cannot be made when using the auto switch.

Note 4) Two extension fitting assemblies (P331176A) are supplied with 11-MHZ2-10D□. Please use them if the fitting interferes with the auto switch.

Specifications

Fluid	Air
Operating pressure	ø10: 0.2 to 0.7 MPa ø16 to ø25: 0.1 to 0.7 MPa
Ambient and fluid temperature	-10 to 60°C
Repeatability	±0.01 mm
Max. operating frequency	180 c.p.m.
Lubrication	Not required
Action	Double acting
Cleanliness class (ISO class)	Class 4
Auto switch (Option)	Solid state auto switch (3-wire, 2-wire)



For details, refer to "Pneumatic Clean Series (CAT. E02-23)" catalog.

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 427 for details.

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

Applicable Auto Switches

Refer to pages 797 to 850 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)	5V, 12 V	24 V	—	M9NV	M9N	●	●	●	○	●	●	●	●	○	IC circuit	Relay PLC
				F8N				—	●	—	●	○	—	●	●	●	—			
				M9PV				M9P	●	●	●	○	●	●	●	○	—			
				F8P				—	●	—	●	○	—	●	●	—	—			
	2-wire			12 V	M9BV			M9B	●	●	●	○	●	●	●	○	—	—		
	F8B			—	●			—	●	○	—	●	●	●	—	—				
	3-wire (NPN)			5 V, 12 V	M9NWV			M9NW	●	●	●	○	●	●	●	○	—	IC circuit		
	3-wire (PNP)			M9PWV	M9PW			●	●	●	○	●	●	●	○	—	—			
	2-wire	12 V	M9BWV	M9BW	●	●	●	○	●	●	●	○	—	—						
	3-wire (NPN)	5 V, 12 V	M9NAV**	M9NA**	○	○	●	○	●	●	●	○	—	IC circuit						
	3-wire (PNP)	M9PAV**	M9PA**	○	○	●	○	●	●	●	○	—	—							
	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) M9NL

5 m..... Z (Example) M9NZ

* 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.

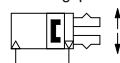
Note 3) When the product is ordered with auto switch, only MHZL2-10 is shipped with the auto switch mounting brackets. When the auto switch is used at the square groove on the side with MHZL2-16 to 25, mounting brackets (BMG2-012) are required. Order them separately. Refer to page 457 for the auto switch mounting brackets.

Specifications

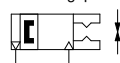


Symbol

Double acting:
Internal grip



Double acting:
External grip



Single acting/
Normally closed: Internal grip



Single acting/
Normally open: External grip



Refer to pages 454 to 458 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 Individual Specifications
(Refer to pages 436 to 439 for details.)

Symbol	Specifications/Description
-X6110	With dust cover

Made to Order

[Click here 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 processing machines, Fluorine grease
-X79A	Grease for food processing machines
-X81A	Anti-corrosive treatment of finger
-X81B	Anti-corrosive treatment of finger and guide

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 797 to 850 for further information on auto switches.

Model

Action	Model	Bore size (mm)	Gripping force ^{Note 1)}		Opening/ Closing stroke (Both sides) (mm)	Note 2 Weight (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	145
		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 weight 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 434 and 435.

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](#).

1 With dust cover (For MHZL10, 16, 20)

Symbol

-X6110

Long stroke type (size 10, 16, 20) with dust cover

MHZL2-16D-M9BW-X6110

- Number of fingers**

2	2 fingers
---	-----------
- Bore size**

10	10 mm
16	16 mm
20	20 mm
- Action**

D	Double acting
---	---------------
- Dust cover type**

Nil	Chloroprene rubber (CR)
F	Fluororubber (FKM)
S	Silicone rubber
- Auto switch**

Nil	Without auto switch (Built-in magnet)
-----	---------------------------------------
- With dust cover**
- Number of auto switches**

Nil	2 pcs.
S	1 pc.
n	n pc.
- Special specifications**

Symbol	Dust cover type		
	Nil: Chloroprene rubber (CR)	F: Fluororubber (FKM)	S: Silicone rubber
Nil	Basic type	○	○
A	Heat resistance	—	○
B	Fluororubber seal	—	○

* When using the heat resistance or fluororubber seal types, refer to "Precautions" shown below.

Specifications

Model	Basic type	Heat resistance	Fluororubber seal
Ambient and fluid temperature	-10 to 60°C	-10 to 100°C	-10 to 60°C
Specifications other than the above	Same as the standard type		

Model

Action	Model	Bore size (mm)	Gripping force ^{Note 1)}		Opening/Closing stroke (Both sides) (mm)	Weight ^{Note 2)} (g)
			Gripping force per finger Effective value (N)			
			External	Internal		
Double acting	MHZL2-10D-X6110□	10	11	17	8	85
	MHZL2-16D-X6110□	16	34	45	12	150
	MHZL2-20D-X6110□	20	42	66	18	385

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

Note 2) Values excluding weight of auto switch.

⚠ Precautions

For heat resistance

⚠ Warning

Be aware that smoking cigarettes after your hands have come into contact with the grease used for this air gripper can create a gas that is hazardous to humans.

⚠ Caution

- Note 1) Magnet is built-in, but when using an auto switch, the acceptable temperature range becomes -10 to 60°C.
 Note 2) For the dust cover option part number, only fluororubber (F) or silicone rubber (S) can be selected.
 Note 3) For lubrication, specialized grease GR-F is recommended.

For fluororubber seal

⚠ Caution

- Note 1) Consult with SMC, since the type of chemical and the operating temperature may not allow the use of this product.
 Note 2) Since the standard-type magnet is built-in, consult with SMC for the product's adaptability to the operating environment.
 Note 3) The dust cover material is also fluororubber. Thus, enter (F) for the fluororubber dust cover in the part number.

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 451.)
* ø6 is only applicable with basic type.

Made to Order
Refer to page 441 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.

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 797 to 850 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			
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	5 V, 12 V	—	Perpendicular	M9NV	M9N	●	●	●	○	●	●	●	●	○	IC circuit	
				In-line			F8N	—	—	—	—	—	—	—	—	—	—	—		
				3-wire (PNP)			Perpendicular	M9PV	M9P	●	●	●	○	●	●	●	●	○		—
				In-line			F8P	—	●	—	●	○	—	—	—	—	—	—		
				2-wire			Perpendicular	M9BV	M9B	●	●	●	○	●	●	●	●	○		—
				In-line			F8B	—	●	—	●	○	—	—	—	—	—	—		
	Diagnosis (2-color indicator)	Grommet	Yes	3-wire (NPN)	5 V, 12 V	—	Perpendicular	M9NWV	M9NW	●	●	●	○	●	●	●	●	○	IC circuit	
				In-line			M9PWV	M9PW	●	●	●	○	●	●	●	●	○	—		
				3-wire (PNP)			Perpendicular	M9BWW	M9BW	●	●	●	○	●	●	●	●	○		—
				In-line			M9NAV**	M9NA**	○	○	○	○	●	●	●	●	○	—		
				2-wire			Perpendicular	M9PAV**	M9PA**	○	○	○	○	●	●	●	●	○		—
				In-line			M9BAV**	M9BA**	○	○	○	○	●	●	●	●	○	—		
	Water resistant (2-color indicator)	Grommet	Yes	3-wire (NPN)	5 V, 12 V	—	Perpendicular	M9NAV**	M9NA**	○	○	○	○	●	●	●	●	○	IC circuit	
				In-line			M9PAV**	M9PA**	○	○	○	○	●	●	●	●	○	—		
				3-wire (PNP)	5 V, 12 V	—	Perpendicular	M9NAV**	M9NA**	○	○	○	○	●	●	●	●	○	IC circuit	
				In-line			M9PAV**	M9PA**	○	○	○	○	●	●	●	●	○	—		

** 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) 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.

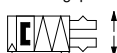


Symbol

Double acting:
Internal grip



Single acting/
Normally closed:
Internal grip



Double acting:
External grip



Single acting/
Normally open:
External grip



Made to Order Individual Specifications
(Refer to pages 451 to 453 for details.)

Symbol	Specifications/Description
-X6100	With dust cover (ø32, ø40)

Made to Order

[Click here 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
-X64	Finger: Side tapped mounting
-X65	Finger: Through-hole mounting
-X77A	Dust cover adhesion
-X77B	Dust cover adhesion (Finger part only)
-X78A	Dust cover caulking
-X78B	Dust cover caulking (Finger part only)
-X79	Grease for food processing machines, Fluorine grease
-X79A	Grease for food processing machines
-X81A	Anti-corrosive treatment of finger

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](#).

Specifications

Fluid			Air
Operating pressure	Double acting		ø6: 0.15 to 0.7 MPa ø10: 0.2 to 0.7 MPa ø16 to ø25: 0.1 to 0.7 MPa
	Single acting	Normally open	ø6: 0.3 to 0.7 MPa
		Normally closed	ø10: 0.35 to 0.7 MPa ø16 to ø25: 0.25 to 0.7 MPa
	Ambient and fluid temperature		
Repeatability			±0.01 mm
Max. operating frequency			180 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 797 to 850 for further information on auto switches.

Model

Action	Model	Bore size (mm)	Gripping force ^{Note 1)}		Opening/ Closing stroke (Both sides) (mm)	Weight ^{Note 2)} (g)	
			Gripping force per finger Effective value (N)				
			External	Internal			
Double acting	MHZJ2- 6D	6	3.3	6.1	4	28	
	MHZJ2-10D	10	9.8	17	4	60	
	MHZJ2-16D	16	30	40	6	130	
	MHZJ2-20D	20	42	66	10	250	
	MHZJ2-25D	25	65	104	14	460	
Single acting	Normally open	MHZJ2- 6S	6	1.9	4	28	
		MHZJ2-10S	10	6.3	4	60	
		MHZJ2-16S	16	24	6	130	
		MHZJ2-20S	20	28	10	255	
		MHZJ2-25S	25	45	14	465	
	Normally closed	MHZJ2- 6C	6	—	3.7	4	28
		MHZJ2-10C	10	—	12	4	60
		MHZJ2-16C	16	—	31	6	130
		MHZJ2-20C	20	—	56	10	255
		MHZJ2-25C	25	—	83	14	465

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

Note 2) Values excluding weight of auto switch.

Option

●Body Option/End Boss Type

Symbol	Piping port location	Type of piping port			Applicable model			
		MHZJ2-10	MHZJ2-16	MHZJ2-20	MHZJ2-25	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 449 and 450.

Refer to pages 454 to 458 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

1 With dust cover (For MHZJ 32, 40)

-X6100

With dust cover type (size 32, 40)

MHZJ2 - 32 D - M9BW - X6100

- Number of fingers**

2	2 fingers
---	-----------
- Bore size**

32	32 mm
40	40 mm
- Action**

D	Double acting
---	---------------
- Dust cover type**

Nil	Chloroprene rubber (CR)
F	Fluororubber (FKM)
S	Silicone rubber
- Auto switch**

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

* Available only for D-M9□.
- With dust cover**

Nil	2 pcs.
S	1 pc.
n	n pc.
- Number of auto switches**
- Special specifications**

Symbol	Dust cover type		
	Nil: Chloroprene rubber (CR)	F: Fluororubber (FKM)	S: Silicone rubber
Nil	Basic type	○	○
A	Heat resistance	—	○
B	Fluororubber seal	—	○

* When using the heat resistance or fluororubber seal types, refer to "Precautions" shown below.

Specifications

Model	Basic type	Heat resistance	Fluororubber seal
Fluid	Air		
Operating pressure	Double acting	0.1 to 0.7 MPa	
Ambient and fluid temperature	—10 to 60°C	—10 to 100°C	—10 to 60°C
Repeatability	±0.02 mm		
Max. operating frequency	60 c.P.m		
Lubrication	Not required		
Action	Double acting		

Model

Action	Model	Bore size (mm)	Gripping force ^{Note 1)}		Opening/ Closing stroke (Both sides) (mm)	Weight ^{Note 2)} (g)
			Gripping force per finger Effective value (N)			
			External	Internal		
Double acting	MHZJ2-32D-X6100□	32	158	193	22	760
	MHZJ2-40D-X6100□	40	254	318	30	1325

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

Note 2) Values excluding weight of auto switch.

Handling Precautions

Heat resistance

Warning

Be aware that smoking cigarettes after your hands have come into contact with the grease used for this air gripper can create a gas that is hazardous to humans.

Caution

Note 1) Magnet is built-in, but when using an auto switch, the acceptable temperature range becomes -10 to 60°C.

Note 2) With the part number for the dust cover option, only fluororubber (F) or silicone rubber (S) options may be selected.

Note 3) For lubrication, specialized grease GR-F is recommended.

Fluororubber seal

Caution

Note 1) Please contact SMC, since the type of chemical and the operating temperature may not allow the use of this product.

Note 2) Since the standard-type magnet is built-in, please contact SMC for the product's adaptability to the operating environment.

Note 3) For the air gripper with a dust cover, the dust cover material is also fluororubber. Thus, enter (F) for the fluororubber dust cover in the part number.

High Rigidity MHQG2 Series

ø32, ø40

With guide holder

Possible to mount the solid state auto switch with indicator light.



Specifications

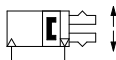
Fluid		Air
Operating pressure	Double acting	0.1 to 0.6 MPa
	Single acting Normally open Normally closed	0.25 to 0.6 MPa
Ambient and fluid temperature		-10 to 60°C
Repeatability		ø32, 40: ±0.02 mm
Max. operating frequency		ø32, 40: 60 c.p.m
Lubrication		Not required
Operating system		Double acting, Single acting
Auto switch (Option) *		Solid state auto switch: D-M9N(V), D-M9P(V), D-M9B(V), D-Y59 ^Δ , D-Y69 ^Δ

* Refer to pages 797 to 850 for the detailed specifications of auto switches.

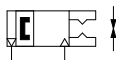
Model

Symbol

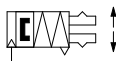
Double acting: Internal grip



Double acting: External grip



Single acting/Normally closed: Internal grip



Single acting/Normally open: External grip



Operating system		Model	Cylinder bore (mm)	Gripping force ^{Note 1)} (Effective value) N	Opening/Closing stroke (mm)	Weight ^{Note 2)} (g)
Double acting		MHQG2-32D	32	External grip: 88 Internal grip: 139	20	1100
		MHQG2-40D	40	External grip: 158 Internal grip: 247	28	1940
Single acting	Normally open	MHQG2-32S	32	69	20	1110
		MHQG2-40S	40	130	28	1960
	Normally closed	MHQG2-32C	32	127	20	1110
		MHQG2-40C	40	227	28	1960

Note 1) Values at the pressure of 0.5 MPa. Double acting is compatible with both external and internal gripping forces, while single acting and normally open external gripping force, and single acting and normally closed internal gripping force.

Note 2) Values excluding weight of auto switch.

With Dust Cover

MHQJ2 Series

ø10, ø16, ø20, ø25

Air gripper with dustproof and dripproof construction

Enclosure to prevent accumulation of dust.

Sealed construction with a dust cover

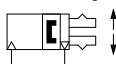
Possible to mount the solid state auto switch with indicator light.

Three-type dust cover variations for diversified applications

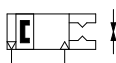


Symbol

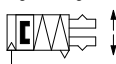
Double acting: Internal grip



Double acting: External grip



Single acting/Normally closed: Internal grip



Single acting/Normally open: External grip



Specifications

Fluid			Air
Operating pressure	Double acting		0.1 to 0.6 MPa
	Single acting	Normally open	0.25 to 0.6 MPa
		Normally closed	
Ambient and fluid temperature			-10 to 60°C
Repeatability			±0.01 mm
Max. operating frequency			180 c.p.m
Lubrication			Not required
Operating system			Double acting, Single acting
Auto switch (Option) *			Solid state auto switch: D-M9N(V), D-M9P(V), D-M9B(V)

* Refer to pages 797 to 850 for the detailed specifications of auto switches.

Model

Operating system		Model	Cylinder bore (mm)	Gripping force ^{Note 1)} (Effective value) N	Opening/Closing stroke (mm)	Weight ^{Note 2)} (g)
Double acting		MHQJ2-10D	10	11	4	90
		MHQJ2-16D	16	34	6	180
		MHQJ2-20D	20	42	10	340
		MHQJ2-25D	25	63	14	640
Single acting	Normally open	MHQJ2-10S	10	7.8	4	90
		MHQJ2-16S	16	26	6	181
		MHQJ2-20S	20	33	10	342
		MHQJ2-25S	25	49	14	643
	Normally closed	MHQJ2-10C	10	7.8	4	90
		MHQJ2-16C	16	26	6	181
		MHQJ2-20C	20	33	10	342
		MHQJ2-25C	25	49	14	643

Note 1) Values at the pressure of 0.5 MPa. Double acting is compatible with both external and internal gripping forces, while single acting and normally open external gripping force, and single acting and normally closed internal gripping force.

Note 2) Values excluding weight of auto switch.

MHZ

MHF

MHL

MHR

MHK

MHS

MHC

MHT

MHY

MHW

-X□

MRHQ

MA

D-□