

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

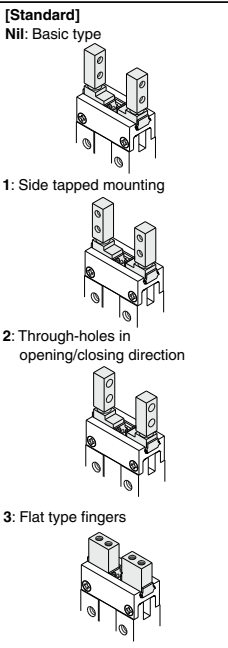
Bore size ●

6 6 mm

Action ●

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

Finger option ●

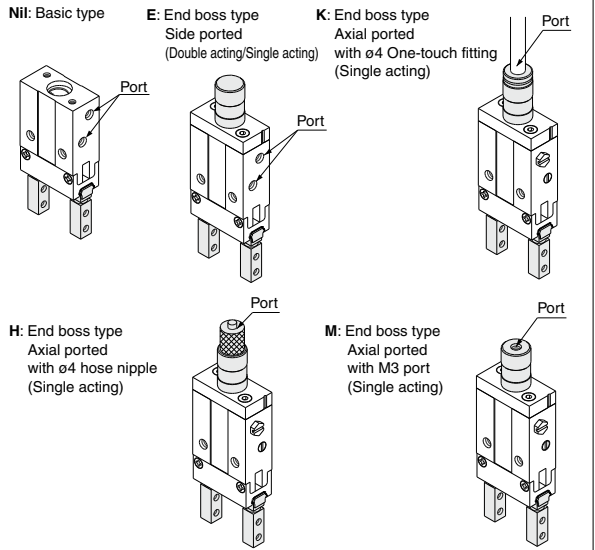


● Made to Order
Refer to page 399 for details.

● Dust cover type

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

● Body option



Specifications

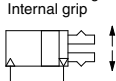


		Fluid	Air
Operating pressure	Double acting		0.15 to 0.7 MPa
	Single acting	Normally open	0.3 to 0.7 MPa
		Normally closed	
Ambient and fluid temperature			-10 to 60°C
Repeatability			±0.01 mm
Max. operating frequency			180 c.p.m.
Lubrication			Not required
Action			Double acting/Single acting

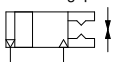
* Use the gripper with dust cover when used in a place where there may be dust.

Symbol

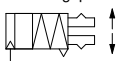
Double acting:
Internal grip



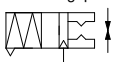
Double acting:
External grip



Single acting/
Normally closed:
Internal grip



Single acting/
Normally open:
External grip



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			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	—	●



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

Moisture Control Tube IDK Series



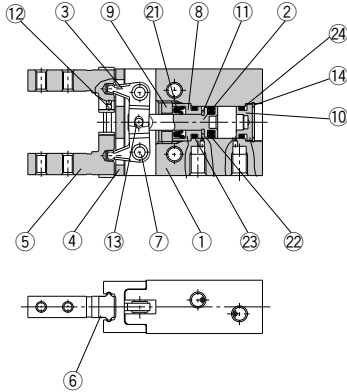
When operating an actuator with a small diameter and a short stroke at a high frequency, the dew condensation (water droplet) may occur inside the piping depending on the conditions.

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](#).

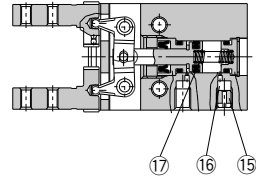
MHZA2-6/MHZAJ2-6 Series

Construction: Standard Type MHZA2-6

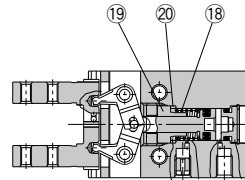
Double acting/With fingers open



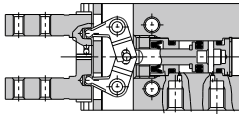
Single acting/Normally open



Single acting/Normally closed



Double acting/With fingers closed



Component Parts

No.	Description	Material	Note
1	Body	Aluminum alloy	Hard anodized
2	Piston	Stainless steel	
3	Lever	Stainless steel	Heat treated
4	Guide	Stainless steel	Heat treated
5	Finger	Stainless steel	Heat treated
6	Roller stopper	Stainless steel	
7	Lever shaft	Stainless steel	Nitriding
8	Holder	Brass	Electroless nickel plated
9	Holder lock	Stainless steel	
10	Cap	Aluminum alloy	Clear anodized
11	Bumper	Urethane rubber	
12	Steel balls	High carbon chrome bearing steel	
13	Needle roller	High carbon chrome bearing steel	

Component Parts

No.	Description	Material	Note
14	Type C retaining ring	Carbon steel	Phosphate coated
15	Exhaust plug	Brass	Electroless nickel plated
16	Exhaust filter	Polyvinyl formal	
17	N.O. spring	Stainless steel spring wire	
18	N.C. spring	Stainless steel spring wire	
19	N.C. holder	Brass	Electroless nickel plated
20	N.C. spacer	Stainless steel	
21	Rod seal	NBR	
22	Piston seal	NBR	
23	Gasket	NBR	
24	Gasket	NBR	

Replacement Parts

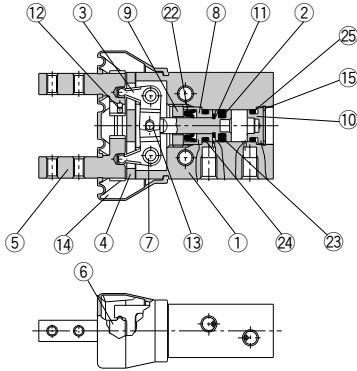
Description		MHZA2-6□	Main parts
Finger assembly		Please contact SMC to replace the seal kit and finger assembly.	
End boss assembly	MHZA2-6□□H	MHZA-A0607	Main body of adaptor Mounting screw for adaptor Seal
	MHZA2-6□□K	MHZA-A0608	
	MHZA2-6□□M	MHZA-A0609	
	MHZA2-6□□E	MHZA-A0610	

* The end boss assembly other than type E should be mounted on the special body.

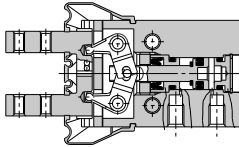
Replacement part/Grease pack part no.: GR-S-010 (10 g)

Construction: With Dust Cover MHZAJ2-6

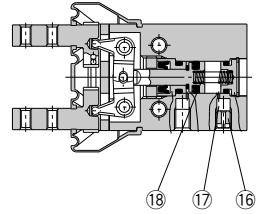
Double acting/With fingers open



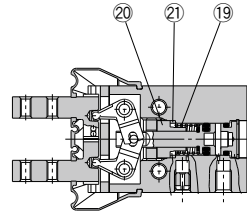
Double acting/With fingers closed



Single acting/Normally open



Single acting/Normally closed



Component Parts

No.	Description	Material	Note
1	Body	Aluminum alloy	Hard anodized
2	Piston	Stainless steel	
3	Lever	Stainless steel	Heat treated
4	Guide	Stainless steel	Heat treated
5	Finger	Stainless steel	Heat treated
6	Roller stopper	Stainless steel	
7	Lever shaft	Stainless steel	Nitriding
8	Holder	Brass	Electroless nickel plated
9	Holder lock	Stainless steel	
10	Cap	Aluminum alloy	Clear anodized
11	Bumper	Urethane rubber	
12	Steel balls	High carbon chrome bearing steel	
13	Needle roller	High carbon chrome bearing steel	

Component Parts

No.	Description	Material	Note
14	Dust cover	CR	Chloroprene rubber
		FKM	Fluororubber
		Silicone rubber	
15	Type C retaining ring	Carbon steel	Phosphate coated
16	Exhaust plug	Brass	Electroless nickel plated
17	Exhaust filter	Polyvinyl formal	
18	N.O. spring	Stainless steel spring wire	
19	N.C. spring	Stainless steel spring wire	
20	N.C. holder	Brass	Electroless nickel plated
21	N.C. spacer	Stainless steel	
22	Rod seal	NBR	
23	Piston seal	NBR	
24	Gasket	NBR	
25	Gasket	NBR	

Replacement Parts

Description		MHZAJ2-6	Main parts
Seal kit		Please contact SMC to replace the seal kit.	
Dust cover	Material	MHZAJ2-J6	(14)
	CR	MHZAJ2-J6F	
	FKM	MHZAJ2-J6S	
Finger assembly		Please contact SMC to replace the finger assembly.	
End boss assembly	MHZA2-6□□H	MHZA-A0607	Main body of adaptor Mounting screw for adaptor Seal
	MHZA2-6□□K	MHZA-A0608	
	MHZA2-6□□M	MHZA-A0609	
	MHZA2-6□□E	MHZA-A0610	

* End boss type

H = With hose nipple, K = With One-touch fitting, M = With M3 port, E = Side port

* The end boss assembly other than type E should be mounted on the special body.

Replacement part/Grease pack part no.: GR-S-010 (10 g)

MHZ

MHF

MHL

MHR

MHK

MHS

MHC

MHT

MHY

MHW

-X□

MRHQ

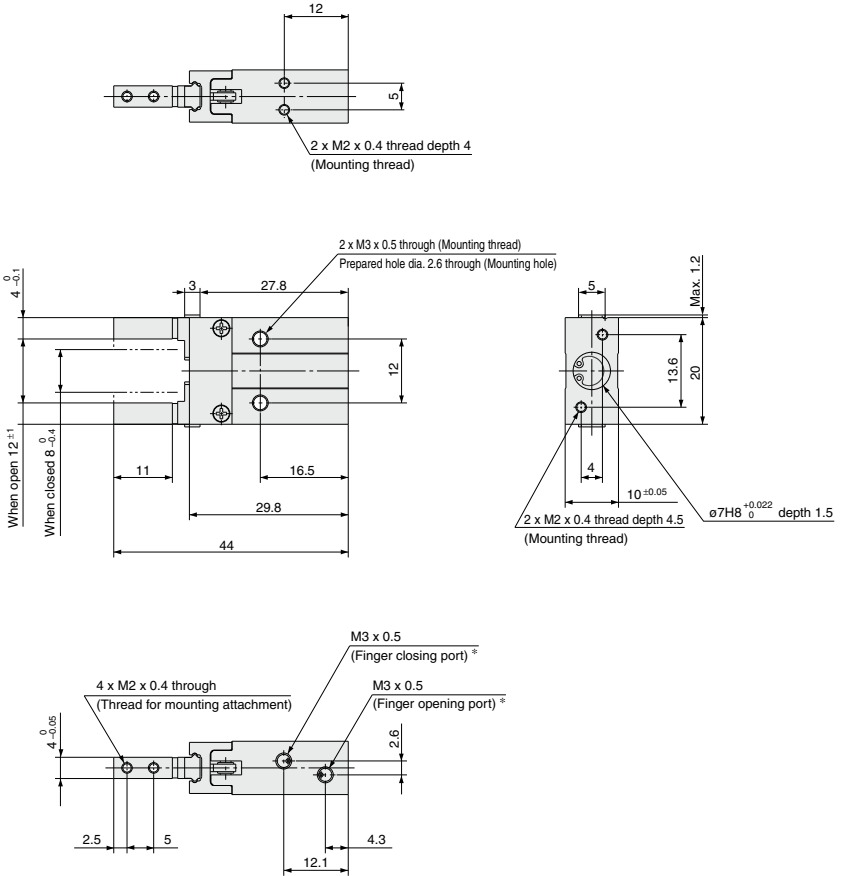
MA

D-□

MHZA2-6/MHZAJ2-6 Series

Dimensions: Standard Type

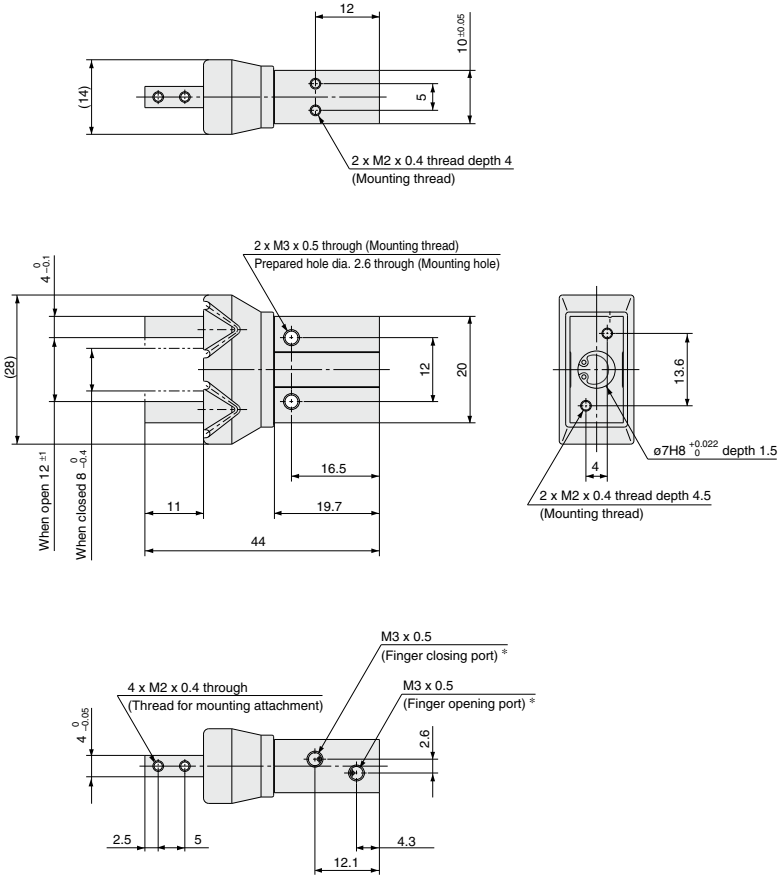
MHZA2-6□ Double acting/Single acting Basic type



* For single action, the port on one side is a breathing hole.

Dimensions: With Dust Cover

**MHZAJ2-6 □ Double acting/Single acting
Basic type**

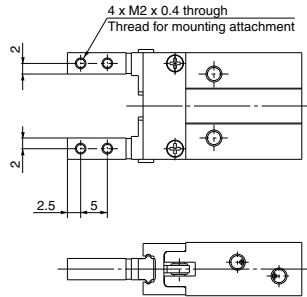


* For single action, the port on one side is a breathing hole.

MHZ
MHF
MHL
MHR
MHK
MHS
MHC
MHT
MHY
MHW
-X □
MRHQ
MA
D- □

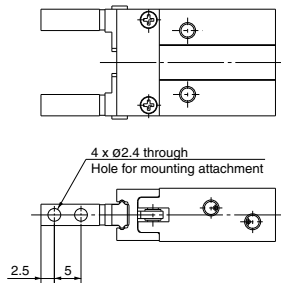
MHZA2-6 Series Finger Option

Side Tapped Mounting [1]



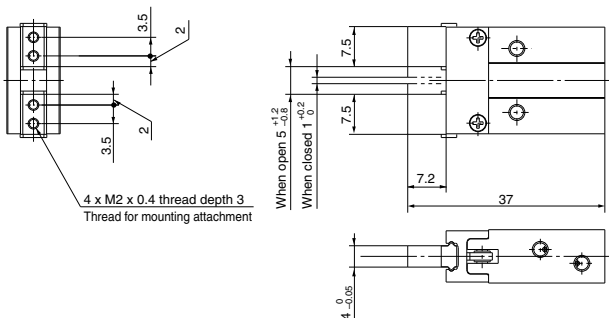
* Specifications and dimensions other than the above are the same as the basic type.

Through-holes in Opening/Closing Direction [2]



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

Flat Type Fingers [3]



Weight: 25 g

Note) To mount attachments, use JISB1101 type M2 round head screws. Be careful not to use commercially available M2 hexagon socket head cap bolt as its top diameter is large.

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

MHZA2-6/MHZAJ2-6 Series

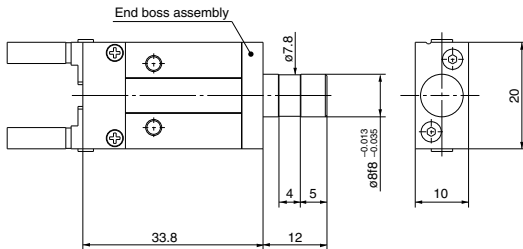
Body Option: End Boss Type

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	Axial ported	With ø4 hose nipple		—	●
K		With ø4 One-touch fitting		—	●
M		M3 x 0.5		—	●

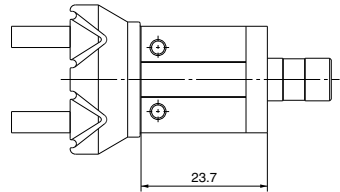
Side Ported [E]

MHZA2-6□□E



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

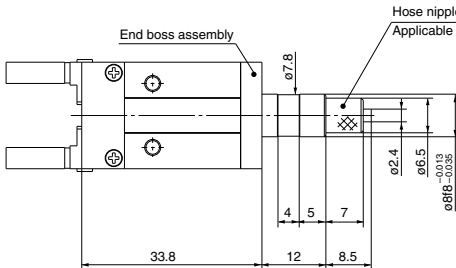
MHZAJ2-6□E□



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

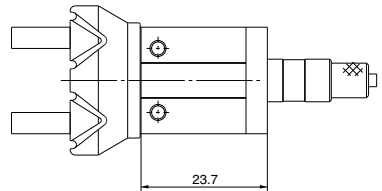
Axial Ported (with hose nipple) [H]

MHZA2-6^S□H



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

MHZAJ2-6^SH□



* 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

Specifications	Description/Model	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.

MHZ

MHF

MHL

MHR

MHK

MHS

MHC

MHT

MHY

MHW

-X□

MRHQ

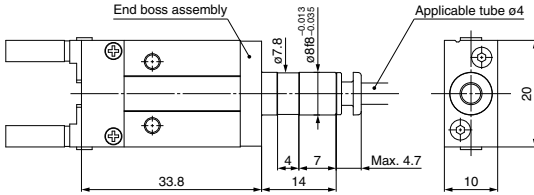
MA

D-□

MHZA2-6/MHZAJ2-6 Series

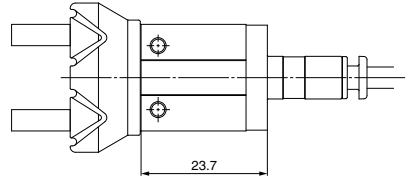
Axial Ported (with One-touch fitting) [K]

MHZA2-6[□]K



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

MHZAJ2-6[□]K



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

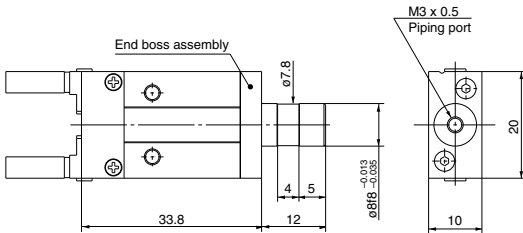
Applicable Tubing

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.

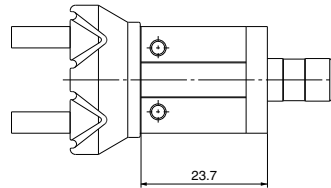
Axial Ported (with M3 port) [M]

MHZA2-6[□]M



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

MHZAJ2-6[□]M



* 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

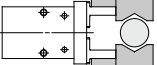
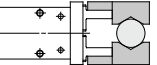
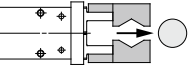
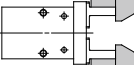
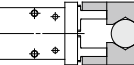
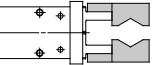
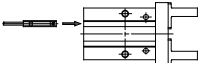
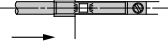
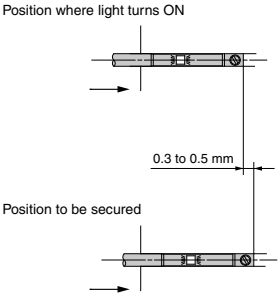

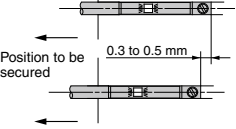
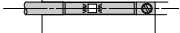
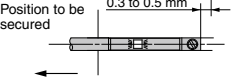

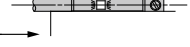
(g)

MHZ2/MHZ□2 Series

Auto Switch Installation Examples and Mounting Position

Various auto switch applications are possible through different combinations of auto switch quantities and detecting positions.

1) Detection when Gripping Exterior of Workpiece

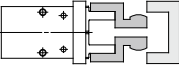
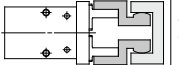
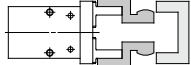
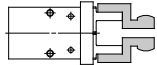
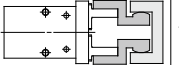
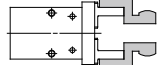
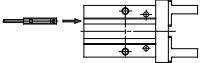

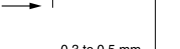
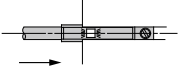
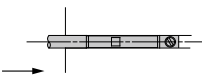

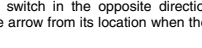

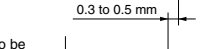
Detection example		1. Confirmation of fingers in reset position	2. Confirmation of workpiece held	3. Confirmation of workpiece released
Position to be detected	Position of fingers fully opened 	Position when gripping workpiece 	Position of fingers fully closed 	
Operation of auto switch	Auto switch turned on when fingers return. (Light ON)	Auto switch turned on when gripping a workpiece. (Light ON)	When a workpiece is not held (Abnormal operation): Auto switch to turn ON (Light ON)	
Detection combinations	One auto switch *One position, any of ①, ②, and ③ can be detected.	●	●	●
	Two auto switches *Two positions of ①, ②, and ③ can be detected.	●	●	—
	Pattern	—	●	●
Pattern	●	—	●	
How to determine auto switch installation position	Step 1) Fully open the fingers. 	Step 1) Position fingers for gripping a workpiece. 	Step 1) Fully close the fingers. 	
At no pressure or low pressure, connect the auto switch to a power supply, and follow the directions.	Step 2) Insert the auto switch into the switch installation groove in the direction shown in the following drawing.0 			
	Step 3) Slide the auto switch in the direction of the arrow until the indicator light illuminates. 	Step 3) Slide the auto switch in the direction of the arrow until the light illuminates and fasten it at a position 0.3 to 0.5 mm in the direction of the arrow beyond the position where the indicator light illuminates. 		
	Step 4) Slide the auto switch further in the direction of the arrow until the indicator light goes out. 			
	Step 5) Move the auto switch in the opposite direction and fasten it at a position 0.3 to 0.5 mm beyond the position where the indicator light illuminates. 			
	Position where light turns ON  Position to be secured 0.3 to 0.5 mm 	Position where light turns ON  Position to be secured 0.3 to 0.5 mm 		

Note 1) It is recommended that gripping of a workpiece be performed close to the center of the finger stroke.

Note 2) When holding a workpiece close at the end of open/close stroke of fingers, detecting performance of the combinations listed in the above table may be limited, depending on the hysteresis of an auto switch, etc.

Various auto switch applications are possible through different combinations of auto switch quantities and detecting positions.

2) Detection when Gripping Interior of Workpiece

Detection example		1. Confirmation of fingers in reset position	2. Confirmation of workpiece held	3. Confirmation of workpiece released
Position to be detected		Position of fingers fully closed 	Position when gripping workpiece 	Position of fingers fully opened 
Operation of auto switch		Auto switch turned ON when fingers return. (Light ON)	Auto switch turned ON when gripping a workpiece. (Light ON)	When a workpiece is not held (Abnormal operation): Auto switch to turn ON (Light ON)
Detection combinations	One auto switch *One position, any of ①, ②, and ③ can be detected.	●	●	●
	Two auto switches *Two positions of ①, ②, and ③ can be detected.	●	●	—
	Pattern	A — B — C ●	— ● —	● ● ●
How to determine auto switch installation position	Step 1) Fully close the fingers. 	Step 1) Position fingers for gripping a workpiece. 	Step 1) Fully open the fingers. 	
At no pressure or low pressure, connect the auto switch to a power supply, and follow the directions.	Step 2) Insert the auto switch into the switch installation groove in the direction shown in the following drawing. 			
	Step 3) Move the auto switch in the direction of the arrow and fasten it at a position 0.3 to 0.5 mm beyond the position where the indicator light illuminates.  Position where light turns ON  Position to be secured 0.3 to 0.5 mm	Step 3) Slide the auto switch in the direction of the arrow until the indicator light illuminates.   Step 4) Slide the auto switch further in the direction of the arrow until the indicator light goes out.   Step 5) Move the auto switch in the opposite direction 0.3 to 0.5 mm in the direction indicated by the arrow from its location when the indicator light comes on again.  Position where light turns ON  Position to be secured 0.3 to 0.5 mm		

Note 1) It is recommended that gripping of a workpiece be performed close to the center of the finger stroke.

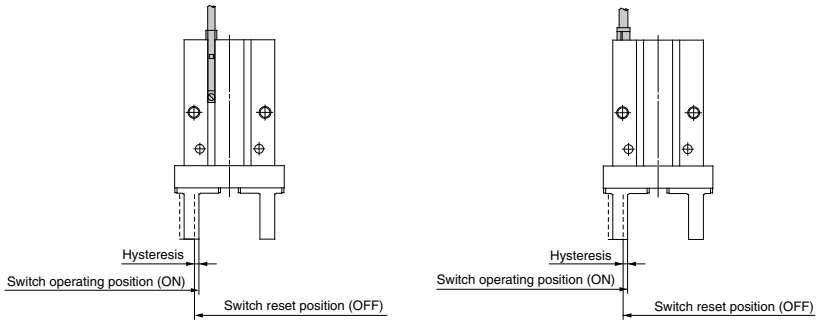
Note 2) When holding a workpiece close at the end of open/close stroke of fingers, detecting performance of the combinations listed in the above table may be limited, depending on the hysteresis of an auto switch, etc.

- MHZ
- MHF
- MHL
- MHR
- MHK
- MHS
- MHC
- MHT
- MHY
- MHW
- X□
- MRHQ
- MA
- D-□

MHZ2, MHZ□2 Series

Auto Switch Hysteresis

Auto switches have hysteresis similar to micro switches.
Use the table below as a guide when adjusting auto switch positions, etc.



Hysteresis

Auto switch model Air gripper model	D-Y59A/Y59B D-Y69A/Y69B D-Y7P(V) D-Y7□W(V)	D-F8□	D-M9□(V) D-M9□W(V) D-M9□A(V)
	MHZ2-6□	No setting	0.5
MHZ2-10□, MHZL2-10□	0.5	No setting	0.5 <small>Note</small>
MHZ2-16□, MHZL2-16□	0.5	0.5	0.5
MHZ2-20□, MHZL2-20□	0.5	0.5	0.8
MHZ2-25□, MHZL2-25□	0.5	0.5	0.5
MHZ2-32□	0.5	0.5	0.7
MHZ2-40□	0.5	0.5	0.9
MHZJ2-6□	No setting	0.5	0.5
MHZJ2-10□		0.5	0.5
MHZJ2-16□		0.5	0.5
MHZJ2-20□		0.5	0.8
MHZJ2-25□		0.5	0.5

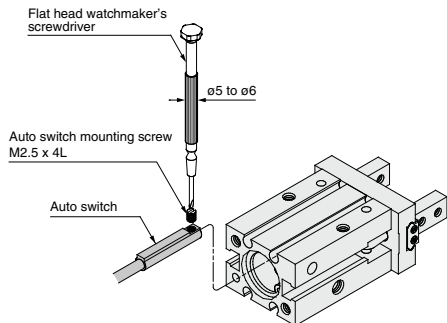
Note) When mounting D-M9□(V), M9□W(V) and M9□A(V) on MHZ2-10□ and MHZL2-10, mounting brackets (BMG2-012) are required.

Auto Switch Mounting

Applicable models:

- MHZ2-6
- MHZJ2 Series
- Round groove of the MHZ2 series
- Round groove of the MHL2 series

To set the auto switch, insert the auto switch into the auto switch installation groove of the gripper from the direction indicated in the following drawing. After setting the position, tighten the attached auto switch mounting screw with a flat head watchmaker's screwdriver.

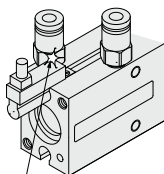


Note) Use a watchmaker's screwdriver with a grip diameter of 5 to 6 mm to tighten the auto switch mounting screw.
Also, tighten with a torque of about 0.05 to 0.15 N·m, or about 0.05 to 0.10 N·m for D-M9□A(V).

[Mounting of Auto Switch: Precautions]

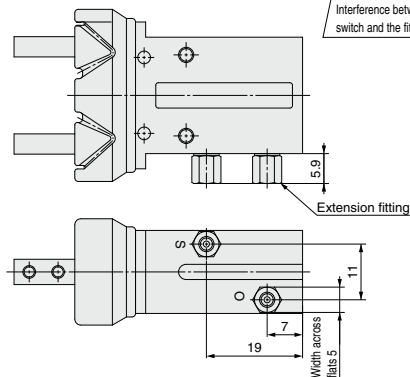
When mounting an auto switch on the piping surface of the MHZJ2-10□, the auto switch may not be mountable due to interference with the fitting. Use an extension fitting included with the product for the combinations in the table below.

Auto switch model	One-touch Mini Fittings (KQ2H/KQ2S/KQ2L/KQ2W) KJH/KJS/KJL/KJW
D-M9□(V)	×
D-M9□W(V)	×
D-F8□	×
D-M9□A(V)	×



Interference between the auto switch and the fitting

Mounting dimensions of extension fitting

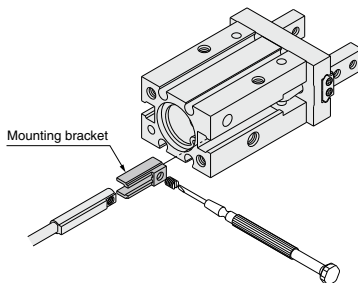


* When mounting extension fittings, first, tighten it by hand, then give it an additional 1/4 turn with a wrench.

Applicable models:

- Square groove on the side of the MHZ2 series
- Square groove on the side of the MHL2 series

- (1) To set the auto switch, insert the auto switch into the installation groove of the cylinder as shown below and set it roughly.
- (2) Insert the auto switch into the auto switch bracket installation groove.
- (3) After confirming the detecting position, tighten the set screws (M2.5) attached to the auto switch and set it.
- (4) Be sure to change the detecting position in the state of (2).



Auto Switch Mounting Bracket: Part No.

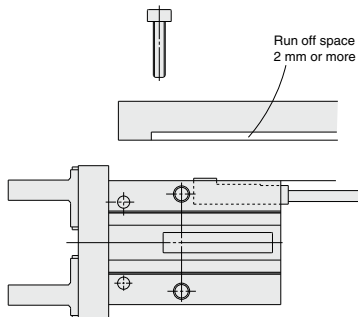
Auto switch part no.	Auto switch mounting bracket part no.
D-M9□(V)	BMG2-012
D-M9□W(V)	
D-F8□	
D-M9□A(V)	

Note) Use a watchmaker's screwdriver with a grip diameter of 5 to 6 mm to tighten the set screws (M2.5).
The tightening torque should be 0.05 to 0.1 N·m.
As a guide, it should be turned about 90° beyond the point at which tightening can be felt.

Note) D-F8□ cannot be mounted on MHZ2-10□, MHZJ2-10□ and MHL2-10□

[Handling of Mounting Brackets: Precautions]

When auto switch is set on the mounting side as shown below, allow at least 2 mm run off space on mounting plate since the auto switch is protruded from the gripper edge.



MHZ

MHF

MHL

MHR

MHK

MHS

MHC

MHT

MHY

MHW

-X□

MRHQ

MA

D-□

MHZ2, MHZ□2 Series

Protrusion of Auto Switch from Edge of Body

The amount of auto switch protrusion from the body's end surface is as shown in the table below.

Use this as a standard when mounting, etc.

D-F8□ has no protrusion from the body's end surface.

The end boss type has no protrusion either.

Standard Body

Lead wire type		In-line electrical entry type			Perpendicular electrical entry type				
		Explanatory drawing			Explanatory drawing				
Air gripper model		D-Y59□ D-Y7P D-Y7□W	D-M9□ D-M9□W	D-M9□A	D-Y69□ D-Y7PV D-Y7□WV	D-M9□V D-M9□WV	D-M9□AV		
Standard	MHZ2-6□	Open	No setting		No setting		9	11	
		Close					11	13	
	MHZ2-10□	Open	1	3.5 <small>Note 3)</small>	5.5 <small>Note 3)</small>	—	1.5 <small>Note 3)</small>	3.5 <small>Note 3)</small>	
		Close	7.5	6.5 <small>Note 3)</small>	8.5 <small>Note 3)</small>	6.5	4.5 <small>Note 3)</small>	6.5 <small>Note 3)</small>	
	MHZ2-16□	Open	—	1	3	—	—	—	
		Close	6	4	6	5	2	4	
	MHZ2-20□	Open	—	—	—	—	—	—	
		Close	4	2	4	3	—	—	
	MHZ2-25□	Open	—	—	—	—	—	—	
		Close	1	—	—	—	—	—	
	MHZ2-32□	Open	—	—	—	—	—	—	
		Close	3	—	—	2	—	—	
	MHZ2-40□	Open	—	—	—	—	—	—	
		Close	2	—	—	1	—	—	
With dust cover	MHZJ2-6□	Open	11		13		9	11	
		Close	13		15		11	13	
	MHZJ2-10□	Open	5		7		3	5	
		Close	7		9		5	7	
	MHZJ2-16□	Open	2		4		—	—	
		Close	5		7		3	5	
	MHZJ2-20□	Open	—		—		—	—	
		Close	3		5		1	3	
	MHZJ2-25□	Open	—		—		—	—	
		Close	2		4		—	—	
Long stroke	Double acting	MHZL2-10D	Open	0.5	1.5 <small>Note 3)</small>	3.5 <small>Note 3)</small>	—	—	
			Close	8.5	8 <small>Note 3)</small>	10 <small>Note 3)</small>	7.5	6 <small>Note 3)</small>	8 <small>Note 3)</small>
		MHZL2-16D	Open	—	—	—	—	—	—
			Close	8	6	8	7	4	6
	MHZL2-20D	Open	—	—	—	—	—	—	
		Close	7	5	7	6	3	5	
	MHZL2-25D	Open	—	—	—	—	—	—	
		Close	5.5	3.5	5.5	4.5	1.5	3.5	
	Single acting (Normally open)	MHZL2-10S	Open	—	—	—	—	—	
			Close	—	—	—	—	—	
		MHZL2-16S	Open	—	—	—	—	—	
			Close	3	1	3	2	—	
		MHZL2-20S	Open	—	—	—	—	—	
			Close	1	—	—	—	—	
		MHZL2-25S	Open	—	—	—	—	—	
			Close	—	—	—	—	—	
		MHZL2-10C	Open	—	—	—	—	—	
			Close	5.5	5 <small>Note 3)</small>	7 <small>Note 3)</small>	4.5	3 <small>Note 3)</small>	5 <small>Note 3)</small>
MHZL2-16C		Open	—	—	—	—	—		
		Close	5.5	3.5	5.5	4.5	1.5	3.5	
MHZL2-20C		Open	—	—	—	—	—		
		Close	3.5	1.5	3.5	2.5	—		
MHZL2-25C	Open	—	—	—	—	—			
	Close	1.5	—	—	0.5	—			

Note 1) There is no protrusion if no values are entered in the table.

Note 2) The actual mounting position should be adjusted after confirming the auto switch operating conditions.

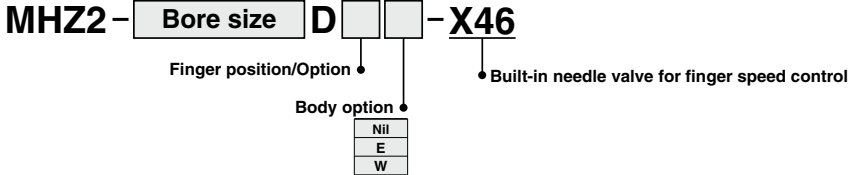
Note 3) When mounting D-M9□(V), M9□W(V) and M9□A(V) on MHZ2-10□ and MHZL2-10□, mounting brackets (BMG2-012) are required.

1 Built-in needle valve for finger speed control

Symbol
-X46

Installation of a variable throttle allows adjustment of the finger opening/closing speed.

How to Order

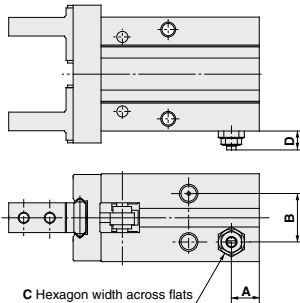


Specifications

Bore size (mm)	10, 16, 20, 25
Action	Double acting
Needle position	Refer to the dimensions and figures below.
Specifications/dimensions other than the above	Same as the standard type

Note) Not available for ø6, ø32 and ø40.

Dimensions (Dimensions other than specified below are the same as the standard type.)



Model	A	B	C	D*
MHZ2-10D□□-X46	9	11	4.5	5.2
MHZ2-16D□□-X46	7.5	13	7	5.8
MHZ2-20D□□-X46	10	15	7	6
MHZ2-25D□□-X46	10.7	20	7	6.2

Dimensions other than the above are identical to the standard type; refer to pages 417 to 420.

* Reference values to establish criteria for needle adjustment.

Adjust so that the finger opening/closing speed will be no greater than necessary. If the finger opening/closing speed is greater than necessary, impact forces acting on the fingers and other parts will increase. This can cause a loss of repeatability when gripping workpieces and have an adverse effect on the life of the unit.

This needle is used to adjust the finger closing speed. When adjusting the opening speed (attenuating impact during operation, etc.), use a meter-out control speed controller AS series.

Guide for Internal Needle Adjustment

Model	Number of rotations from fully closed needle condition <small>(Note)</small>
MHZ2-10D□□-X46	1/4 to 1/2
MHZ2-16D□□-X46	1/2 to 1
MHZ2-20D□□-X46	1 to 1 1/2
MHZ2-25D□□-X46	1 1/2 to 2

Note) The condition in which the needle is tightened gently until it stops.

MHZ

MHF

MHL

MHR

MHK

MHS

MHC

MHT

MHY

MHW

-X□

MRHQ

MA

D-□

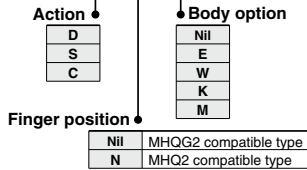
2 MHQ2/MHQG2 Compatible Flat Type Fingers

Symbol
-X51

Previous MHQ2/MHQG2 series compatible flat type finger is selectable for the MHZ2 series.

How to Order

MHZ2 – **Bore size** [] [] [] – **X51**



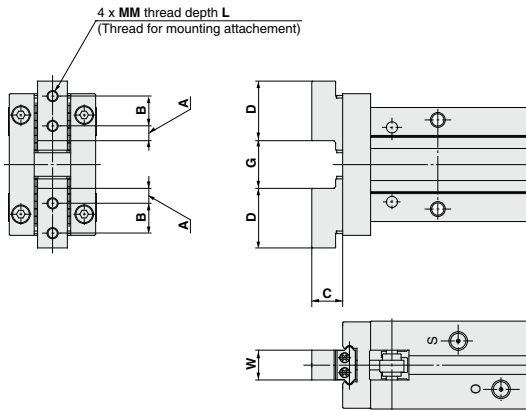
Specifications

Bore size (mm)	10, 16, 20, 25
Action	Double acting, Single acting (normally open, normally closed)
Finger dimensions	Refer to the dimensions and figures below.
Specifications/dimensions other than the above	Same as the standard type

Note 1) Not available for ø6, ø32 and ø40.

Note 2) An option symbol (3) for the flat finger type is not specified.

Dimensions (Dimensions other than specified below are the same as the standard type.)



(mm)

Model		A	B	C	D	G		MM	L	W
						Open	Closed			
MHZ2-10□□□-X51	MHQG2 compatible	3	6	5.2	12	9.7 ^{+0.2} _{-0.1}	5.7 ⁰ _{-0.4}	M2 x 0.4	3.6	5 ⁰ _{-0.05}
	MHQ2 compatible	2	5	5.2	9	9.7 ^{+0.2} _{-0.1}	5.7 ⁰ _{-0.4}	M2 x 0.4	3.6	5 ⁰ _{-0.05}
MHZ2-16□□□-X51	MHQG2 compatible	4	8	8.3	16	12.6 ^{+0.2} _{-0.1}	6.6 ⁰ _{-0.4}	M3 x 0.5	6	8 ⁰ _{-0.05}
	MHQ2 compatible	2.5	7	8.3	12	12.6 ^{+0.2} _{-0.1}	6.6 ⁰ _{-0.4}	M3 x 0.5	6	8 ⁰ _{-0.05}
MHZ2-20□□□-X51	MHQG2 compatible	5	10	10.5	20.8	17.2 ^{+0.2} _{-0.1}	7.2 ⁰ _{-0.4}	M4 x 0.7	8	10 ⁰ _{-0.05}
	MHQ2 compatible	3.3	9	10.5	15.5	17.2 ^{+0.2} _{-0.1}	7.2 ⁰ _{-0.4}	M4 x 0.7	8	10 ⁰ _{-0.05}
MHZ2-25□□□-X51	MHQG2 compatible	6.5	12	13.1	25	22.8 ^{+0.5} _{-0.1}	8.8 ⁰ _{-0.4}	M5 x 0.8	10	12 ⁰ _{-0.05}
	MHQ2 compatible	3.5	12	13.1	19	22.8 ^{+0.5} _{-0.1}	8.8 ⁰ _{-0.4}	M5 x 0.8	10	12 ⁰ _{-0.05}