

# Compact Series (Without Auto Switch)

## Series *MHZA2-6/MHZAJ2-6*

### How to Order

**MHZA** 2 - 6 D □ □

**MHZAJ** 2 - 6 D □ □

With dust cover ●

Number of fingers ●  
2 2 fingers

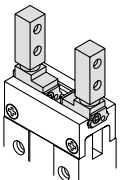
Bore size ●  
6 6mm

Action ●

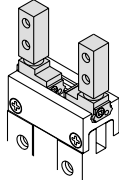
<b>D</b>	Double acting
<b>S</b>	Single acting (normally open)
<b>C</b>	Single acting (normally closed)

Finger option ●

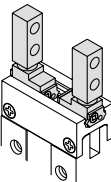
**[Standard type]**  
**Nil: Basic**



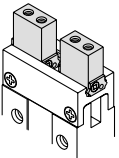
**1: Side tapped mounting**



**2: Through holes in opening/closing direction**



**3: Flat type fingers**

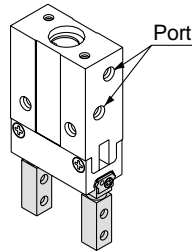


● Dust cover type

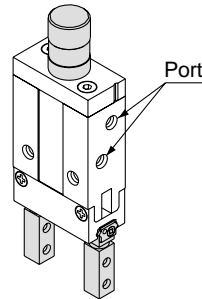
<b>Nil</b>	Chloroprene rubber (CR)
<b>F</b>	Fluoro rubber (FKM)
<b>S</b>	Silicon rubber (Si)

● Body option

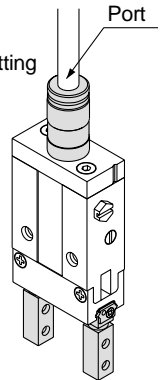
**Nil: Basic**



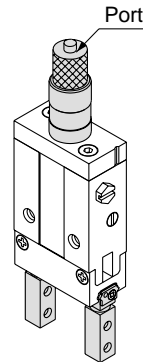
**E: End boss type**  
Side ported  
(double acting/single acting)



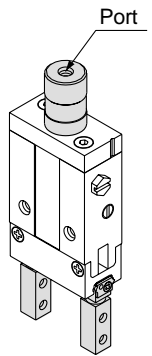
**K: End boss type**  
Axial port with  
ø4 One-touch fitting  
(single acting)



**H: End boss type**  
Axial port with  
ø4 hose nipple  
(single acting)



**M: End boss type**  
Axial M3 port  
(single acting)



## Specifications



<b>Fluid</b>		Air	
<b>Operating pressure</b>	<b>Double acting</b>		0.15 to 0.7MPa
	<b>Single acting</b>	Normally open	0.3 to 0.7MPa
Normally closed			
<b>Ambient and fluid temperature</b>			-10 to 60 °C
<b>Repeatability</b>			±0.01mm
<b>Maximum operating frequency</b>			180c.p.m.
<b>Lubrication</b>			Non-lube
<b>Action</b>			Double acting, Single acting

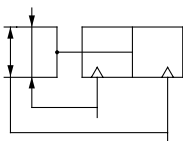
## Models

Action	Model	Bore size (mm)	Gripping force <sup>Note 1)</sup>		Opening/Closing stroke (both sides) mm	Weight g	
			Gripping force per finger Effective value N				
			External gripping force	Internal gripping force			
Double acting	MHZA2-6D	6	3.3	6.1	4	26	
	MHZAJ2-6D	6					
Single acting	Normally open	MHZA2-6S	1.9	—	4	26	
		MHZAJ2-6S					6
	Normally closed	MHZA2-6C	6	—	3.7	4	26
		MHZAJ2-6C	6				

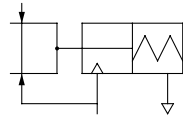
Note 1) Values based on pressure of 0.5MPa, gripping point L = 20mm, at center of stroke.

### Symbols:

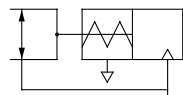
#### Double acting type



#### Single acting type, normally open



#### Single acting type, normally closed



## Options

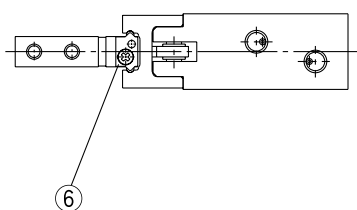
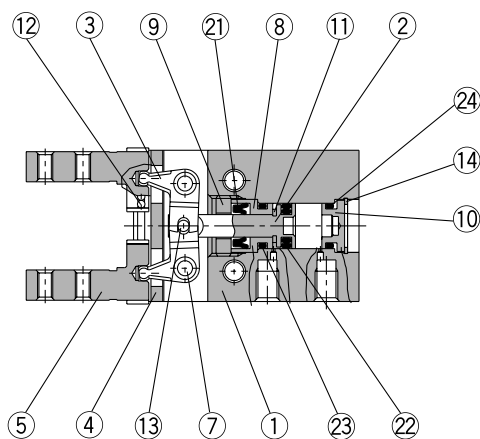
### • Body options/End boss type

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

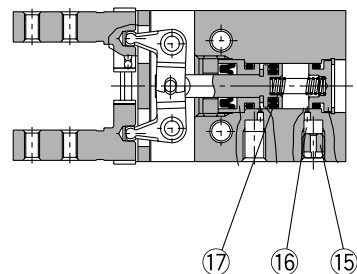
# Series MHZA2-6/MHZAJ2-6

## Construction/Standard Type MHZA2-6

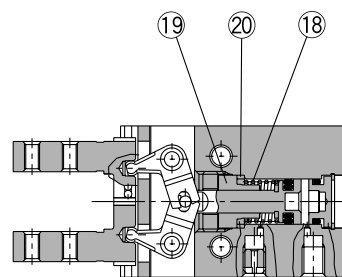
### Double acting/with fingers open



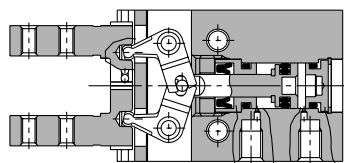
### Single acting/normally open



### Single acting/normally closed



### Double acting/with fingers closed



#### Parts list

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

#### Parts list

No.	Description	Material	Note
14	<b>C type snap ring</b>	Carbon steel	Nickel plated
15	<b>Exhaust plug</b>	Brass	Electroless nickel plated
16	<b>Exhaust filter</b>	Polyvinyl formal	
17	<b>N.O. spring</b>	Stainless steel spring wire	
18	<b>N.C. spring</b>	Stainless steel spring wire	
19	<b>N.C. holder</b>	Brass	Electroless nickel plated
20	<b>N.C. spacer</b>	Stainless steel	
21	<b>Rod seal</b>	NBR	
22	<b>Piston seal</b>	NBR	
23	<b>Gasket</b>	NBR	
24	<b>Gasket</b>	NBR	

#### Replacement parts: Seal kits

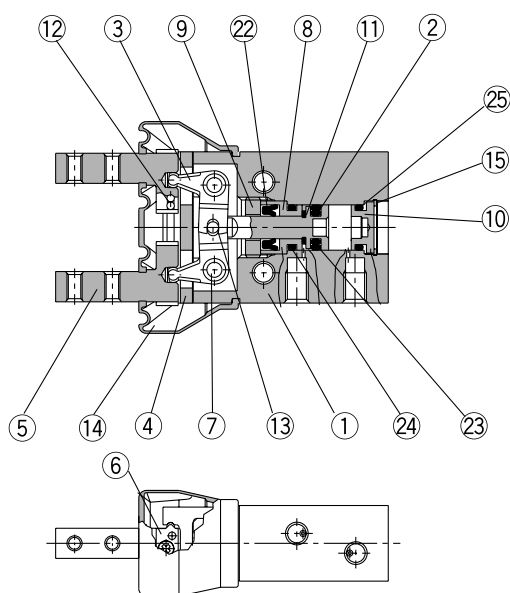
Seal kit no.	Description
MHZA6-PS	Kit includes items 21, 22, 23 and 24 from the table above.

\* Seal kits consist of items 21, 22, 23 and 24 in one kit, and can be ordered using the seal kit number.

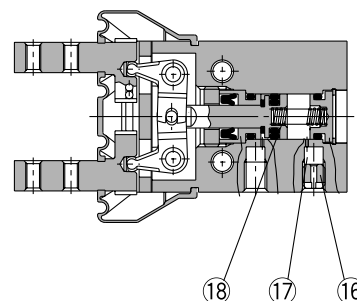
Note) Contact SMC when replacing seals.

## Construction/With Dust Cover MHZAJ2-6

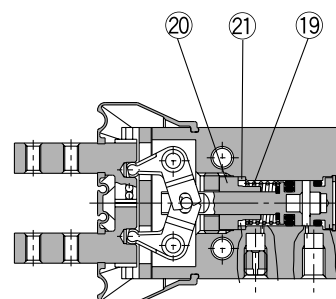
### Double acting/with fingers open



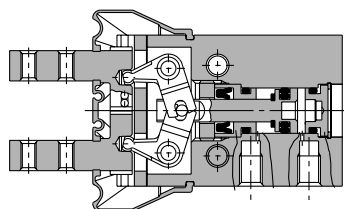
### Single acting/normally open



### Single acting/normally closed



### Double acting/with fingers closed



#### Parts list

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

#### Replacement parts: Seal kits

Seal kit no.	Description
MHZAJ6-PS	Kit includes items 22, 23, 24 and 25 from the table above.

\* Seal kits consist of items 22, 23, 24 and 25 in one kit, and can be ordered using the seal kit number.

Note) Contact SMC when replacing seals.

#### Parts list

No.	Description	Material	Note
14	<b>Dust cover</b>	CR	Chloroprene rubber
		FKM	Fluoro rubber
		Si	Silicon rubber
15	<b>C type snap ring</b>	Carbon steel	Nickel plated
16	<b>Exhaust plug</b>	Brass	Electroless nickel plated
17	<b>Exhaust filter</b>	Polyvinyl formal	
18	<b>N.O. spring</b>	Stainless steel spring wire	
19	<b>N.C. spring</b>	Stainless steel spring wire	
20	<b>N.C. holder</b>	Brass	Electroless nickel plated
21	<b>N.C. spacer</b>	Stainless steel	
22	<b>Rod seal</b>	NBR	
23	<b>Piston seal</b>	NBR	
24	<b>Gasket</b>	NBR	
25	<b>Gasket</b>	NBR	

#### Replacement parts: Dust covers

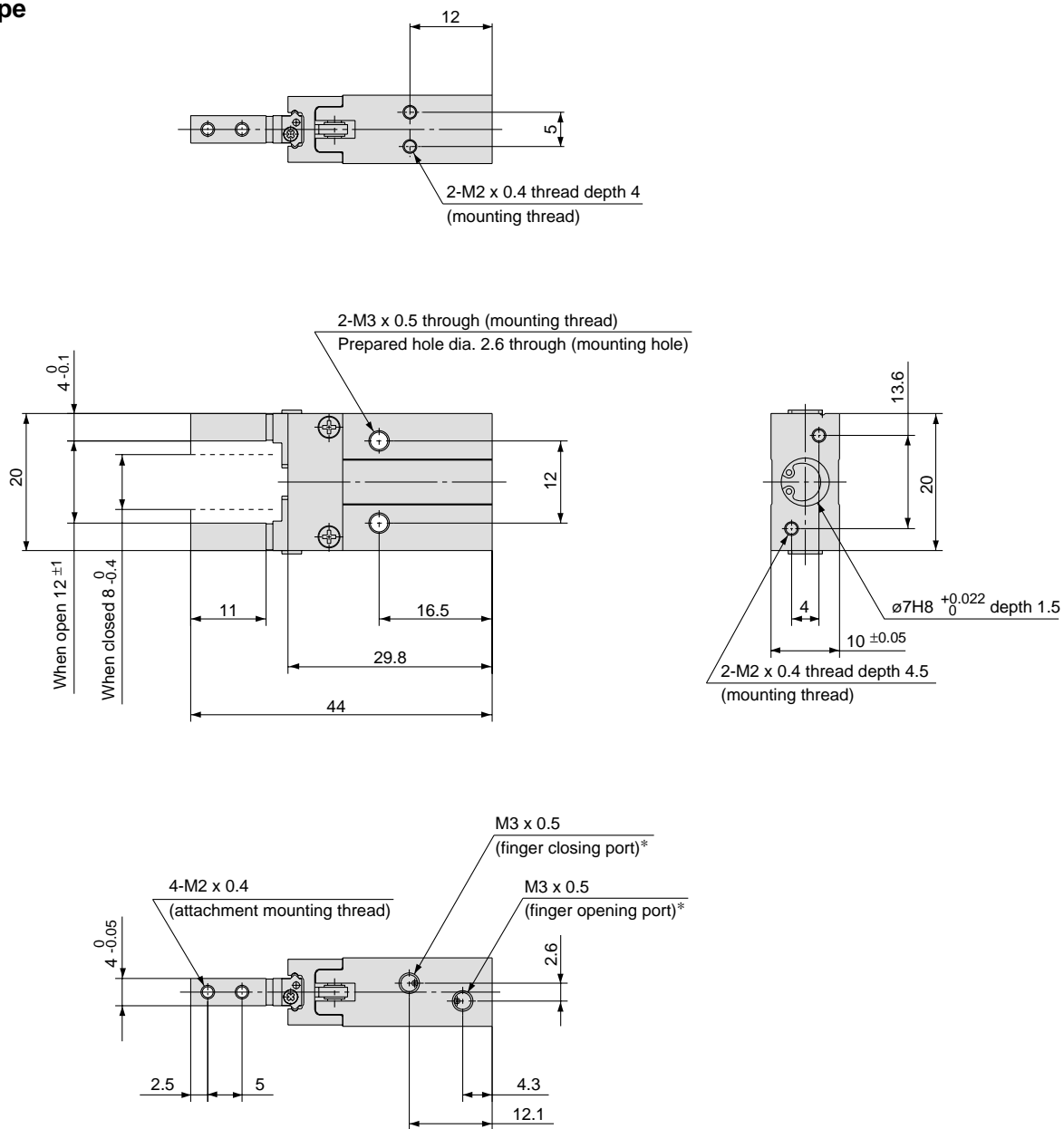
Material	Part number
CR	MHZAJ2-J6
FKM	MHZAJ2-J6F
Si	MHZAJ2-J6S

# Series MHZA2-6/MHZAJ2-6

## Dimensions/Standard Type

MHZA2-6□  
Double acting/Single acting  
Basic Type

Scale: 100%



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

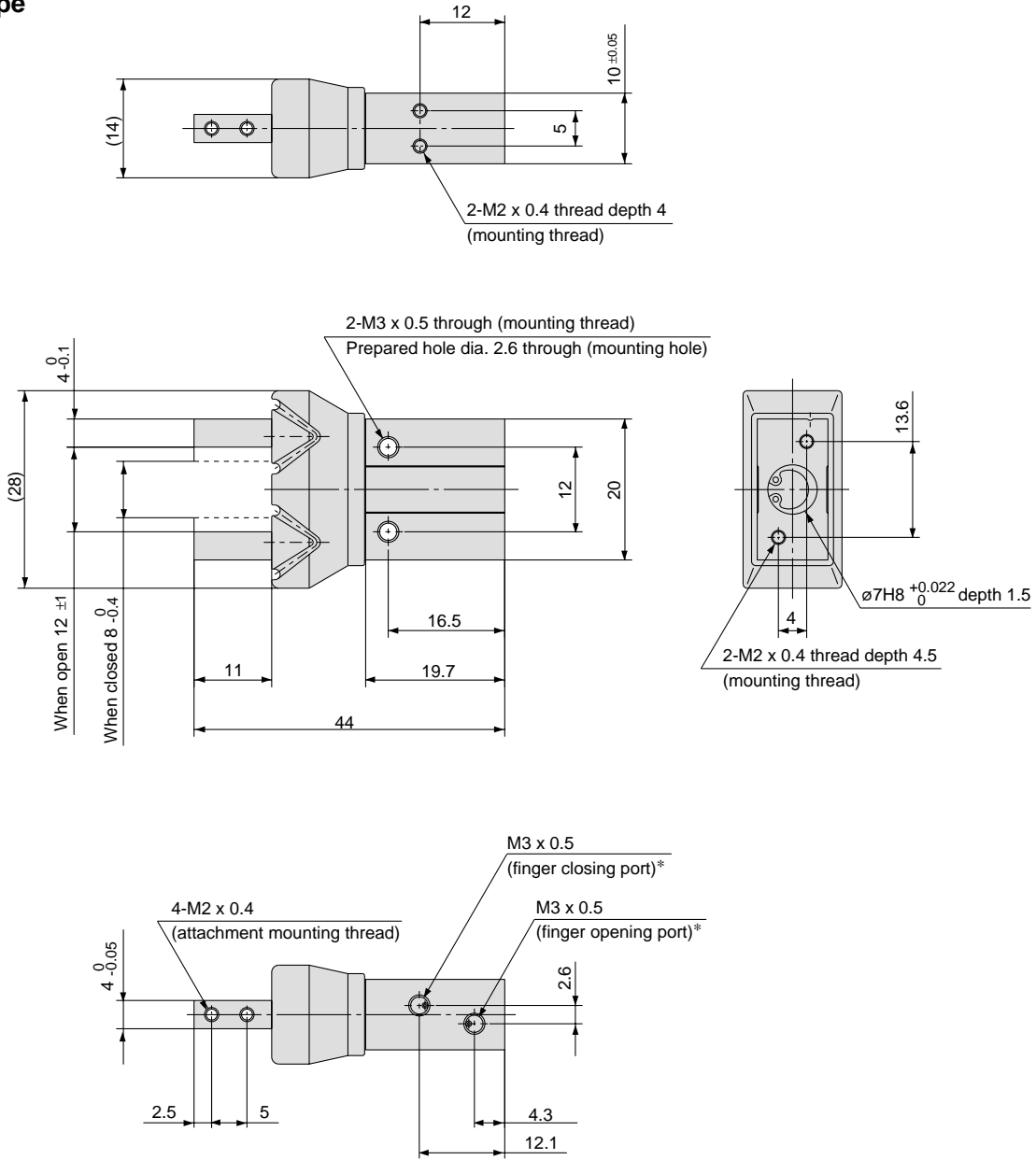
**Dimensions/With dust cover**

**MHZAJ2-6** □

Double acting/Single acting

Basic Type

**Scale: 100%**



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

Compact Series  
MHZA2-6/MHZAJ2-6

Standard Type  
MHZ2

Long Stroke  
MHZL2

With Dust Cover  
MHZJ2

Auto Switches

Order Made

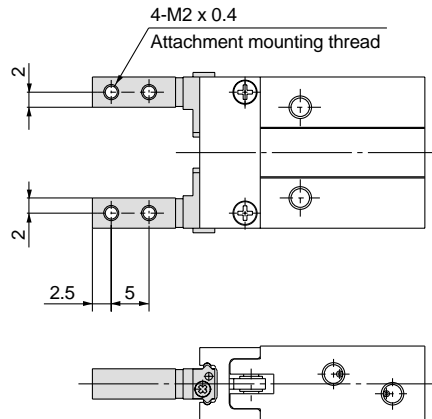
Model Selection

Precautions

# Series MHZA2-6

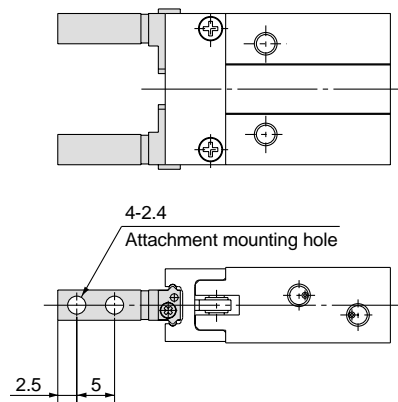
## Finger Options

### Side Tapped Mounting [1]



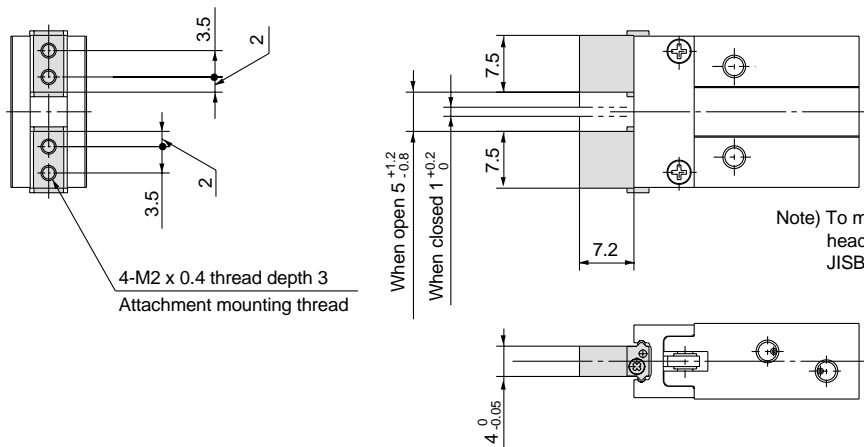
\* Specifications and dimensions other than the above are the same as the basic type.

### 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: 25g

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

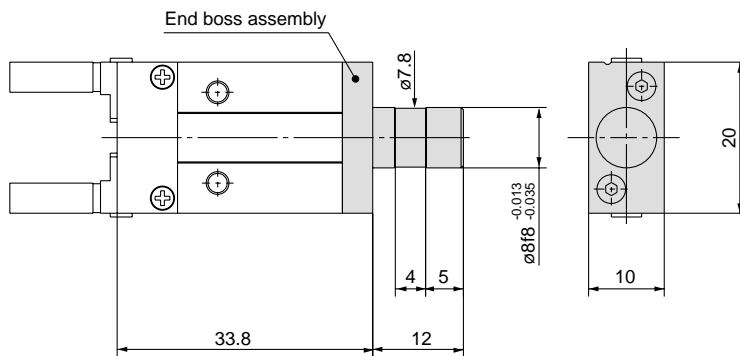
# Body Options: End Boss Type

## Applicable Models

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

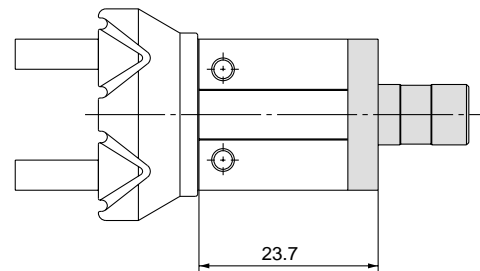
## Side Ported [E]

### MHZA2-6□□E



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

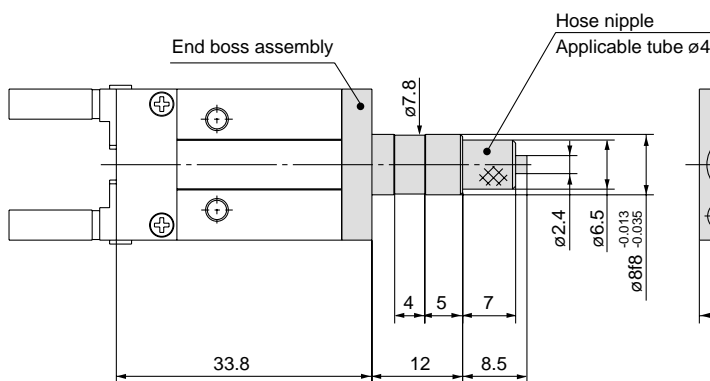
### MHZAJ2-6□□E



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

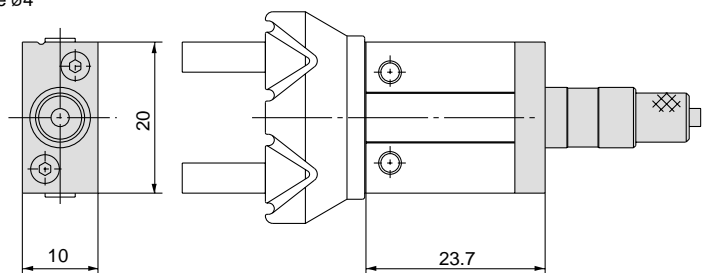
## Axial Port (with Hose Nipple) [H]

### MHZA2-6<sup>S</sup>□□H



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

### MHZAJ2-6<sup>S</sup>□□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 coiled tubing
Specification	T0425	TS0425	TU0425	TCU0425B-1
Outside diameter mm	4	4	4	4
Max. operating pressure MPa	1.0	0.8	0.5	0.5
Minimum 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

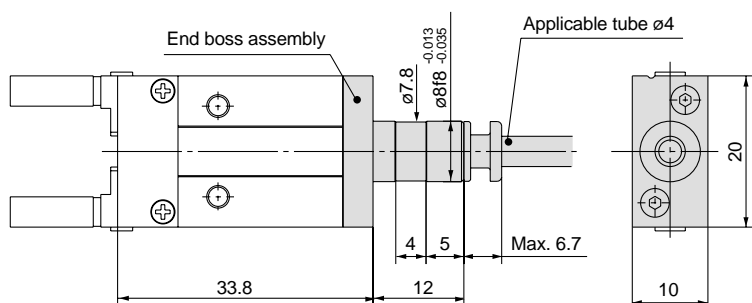
Refer to catalog CAT.501-B "Air Fittings and Tubing" regarding One-touch fittings and tubing.



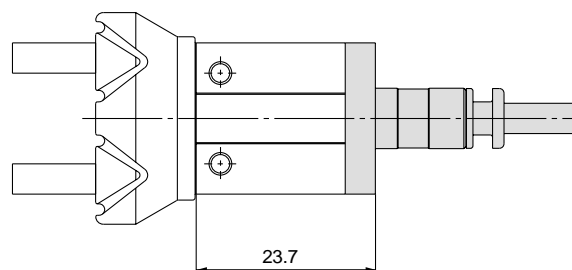
# Series MHZA2-6/MHZAJ2-6

## Axial Port (with One-touch Fitting) [K]

MHZA2-6  $\frac{6}{8}$ □□K



MHZAJ2-6  $\frac{6}{8}$ □□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.

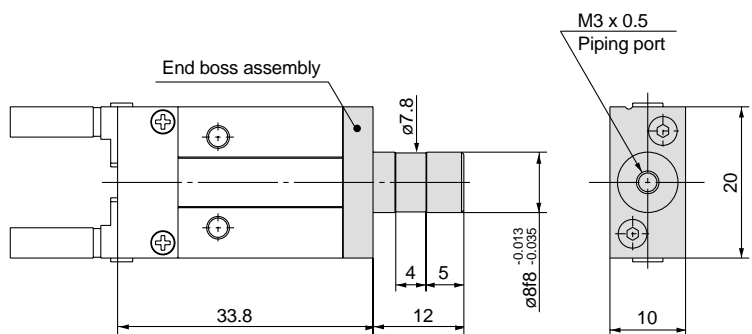
### Applicable tubing

Description/Model	Nylon tubing	Soft nylon tubing	Polyurethane tubing	Polyurethane coiled 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
Minimum 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

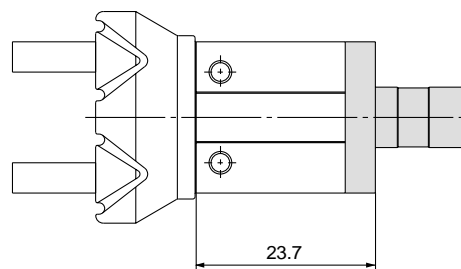
Refer to catalog CAT. 501-B "Air Fittings and Tubing" regarding One-touch fittings and tubing.

## Axial Port (M3 Port) [M]

MHZA2-6  $\frac{6}{8}$ □□M



MHZAJ2-6  $\frac{6}{8}$ □□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.

### Weights

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

Unit: g