



### Features

- Hardened gripping fingers for longer service life.
- Simple structure with high stability.
- Magnetic as standard.

### Specification

Model	MCHA				
Acting type	Double acting / Single acting (N.O.)				
Tube I.D. (mm)	12	16	20	25	32
Port size	M3×0.5	M5×0.8			
Medium	Air				
Operating pressure range	Double acting	0.15~0.7 MPa			
	Single acting	0.3~0.7	0.2~0.7 MPa		
Ambient temperature	-5~+60°C (No freezing)				
Max. frequency	180 Cycles/min				
Lubrication	Cylinder	Not required			
	Lever	Grease (Joint parts)			
Max. arm length (L) (*1)	30	40	60	70	85
Clamp / Release angle	-10~+30°				
Sensor switch (*2)	RDE, RDE-D: Non-contact				
Weight (g)	53	103	193	327	525

### Order example

MCHA - 20 - □

MODEL

TUBE I.D.

ACTING TYPE

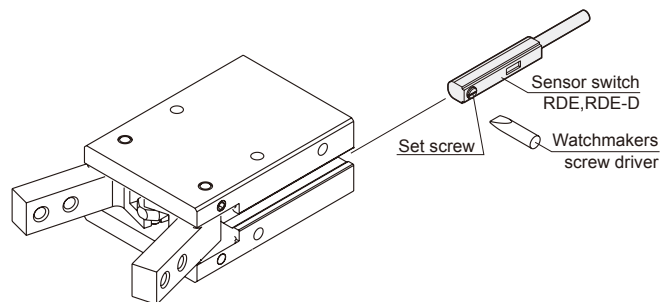
Blank: Double acting  
S: Single acting (Normally open)

12  
16  
20  
25  
32

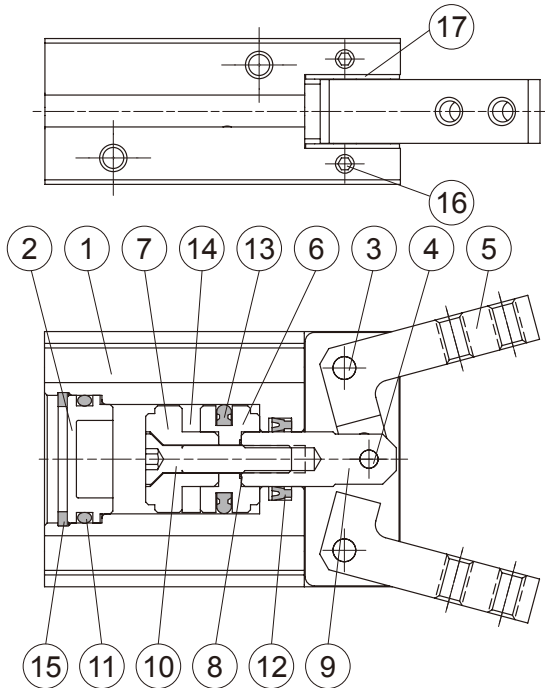
\*1. L: Arm length (mm)

\*2. RDE, RDE-D specification, please refer to page 5-6.

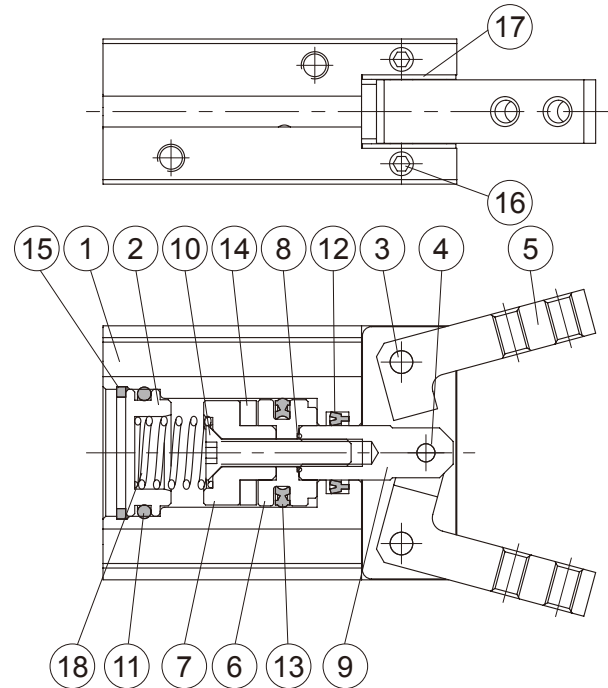
### Installation of sensor switch



### Double acting



### Single acting Normally Open



### Material

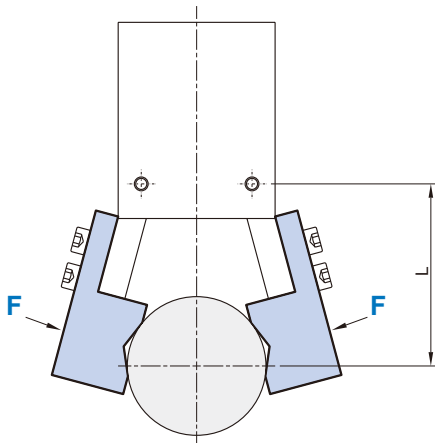
No.	Part name	Material	Q'y	Repair kits (inclusion)
1	Body	Aluminum alloy	1	
2	Head cover	Aluminum alloy	1	
3	Grip rivet	Carbon steel	2	
4	Spindle rivet	Bearing steel	1	
5	Y-finger	Medium carbon steel	2	
6	Piston-R	Aluminum alloy	1	
7	Piston-H	Aluminum alloy	1	
8	Gasket	NBR	1	●
9	Piston rod	Stainless steel	1	
10	Screw	Stainless steel	1	
11	Cover ring	NBR	1	●
12	Rod packing	NBR	1	●
13	Piston packing	NBR	1	●
14	Magnet ring	Magnet material	1	
15	Stop ring	Spring steel	1	
16	Screw	SCM	4	
17	Washer	Stainless steel	2	
18	Spring	SWB-P	1	

### Order example of repair kits

Tube I.D.	Repair kits
ø12	<b>PS-MCHA-12</b>
ø16	<b>PS-MCHA-16</b>
ø20	<b>PS-MCHA-20</b>
ø25	<b>PS-MCHA-25</b>
ø32	<b>PS-MCHA-32</b>

### Effective gripping force

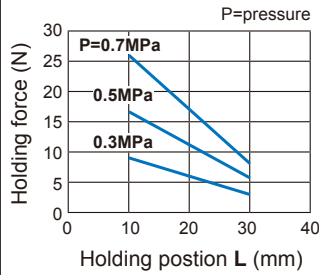
Indication of effective force.  
The effective gripping force shown in the graphs to the right is expressed as F, which is the thrust of one finger, when both fingers and attachments are in full contact with the workpiece as shown in the figure below.



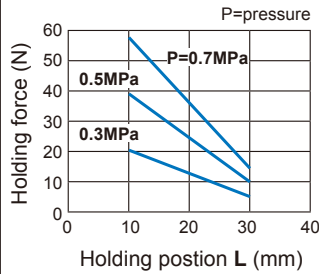
1N=0.102 kgf  
1MPa=10.2 kgf/cm<sup>2</sup>

### Double acting

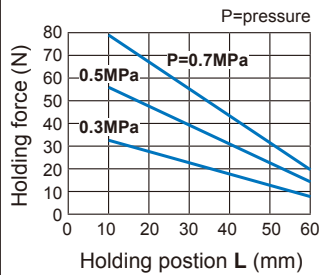
#### MCHA-12



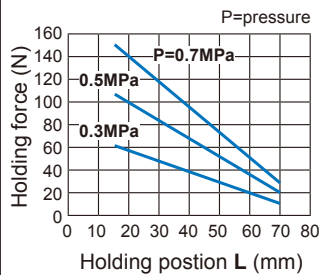
#### MCHA-16



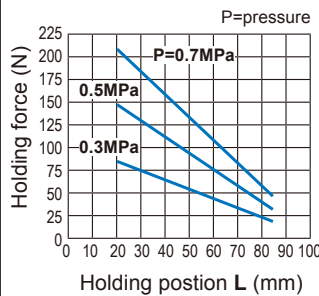
#### MCHA-20



#### MCHA-25

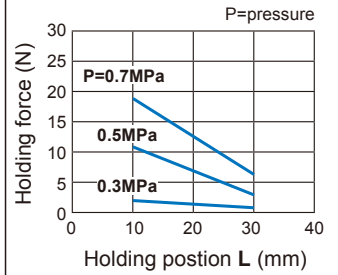


#### MCHA-32

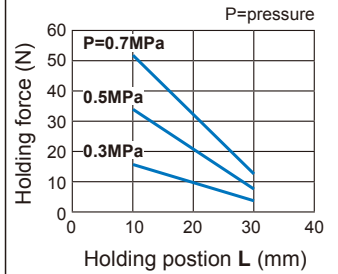


### Single acting (Normally open)

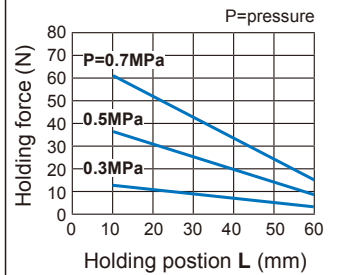
#### MCHA-12-S



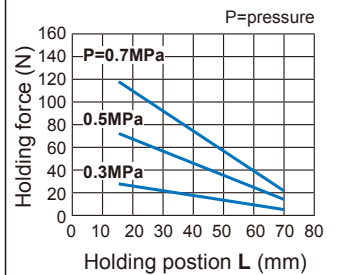
#### MCHA-16-S



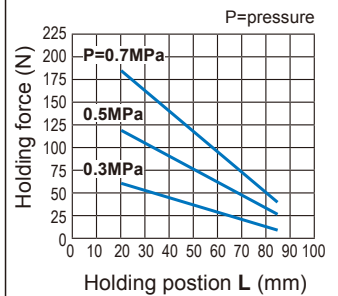
#### MCHA-20-S

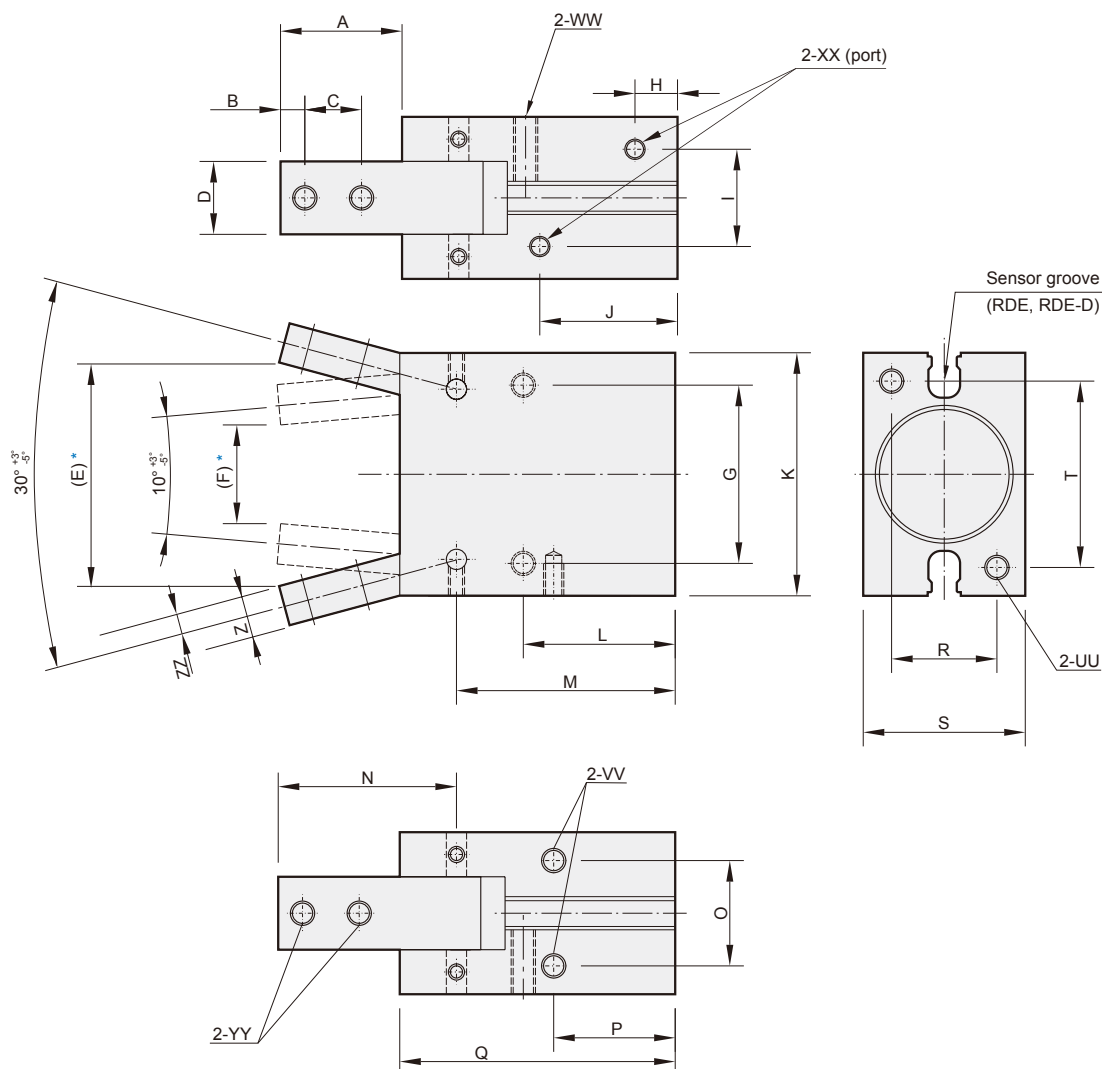


#### MCHA-25-S



#### MCHA-32-S





\* Reference value.

Code Tube I.D.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	UU	VV
12	15.4	3	6	7	26.3	9	20	7.5	10.2	23	28	20	32.9	21.5	10.2	16	39	10	16	22	M3×5depth	M3×5depth
16	17.5	3	8	9	31.1	14	24	7.5	12	22	34	22.5	35	25	14	18	42.5	14	22	26	M4×7depth	M4×7depth
20	22	4	10	12	40.1	18	30	8.0	13	25	45	25	39.5	32.5	16	19	50	16	26	35	M5×8depth	M5×8depth
25	26	5	12	14	47.9	21	36	8.5	18	28	52	28.5	45.5	38.5	20	21.5	58	20	32	40	M6×10depth	M6×8depth
32	30	6	14	18	55.1	24	44	10.5	24	34	60	37.5	54	44	26	30	68	26	40	46	M6×10depth	M6×8depth

Code Tube I.D.	WW	XX	YY	Z	ZZ
12	M3×8depth	M3×5 depth	M3	5	2.5
16	M4×11depth	M5×5 depth	M3	6	3
20	M5×12depth	M5×5 depth	M4	7	3.5
25	M6×16depth	M5×5 depth	M5	9	4
32	M6×20depth	M5×5 depth	M6	10	5