

### Features

- Compact in width and length with precision guidance.
- High lateral loads can be applied on both slide and linear bearing unit.
- Non rotation is standard.
- Magnetic as standard.

### Specification

Model	MCDA					
Acting type	Double acting					
Tube I.D.(mm)	6	12	16	20	25	32
Port size Rc(PT)	M5 × 0.8			Rc1/8		
Medium	Air					
Operating pressure range MPa	Max. 0.7					
	Min. 0.15	0.1			0.05	
Proof pressure	1 MPa					
Ambient temperature	- 5~ + 60°C (No freezing)					
Cushion	With rubber cushion pad (both side)					
Available speed range	50~300	50~500 mm/sec				
Lubrication	Not required (If lubrication is used, apply turbine oil NO1 ISO VG32)					
Magnet	With magnet					
Sensor switch	RCE / E1	RCB, RCE, RCE1				

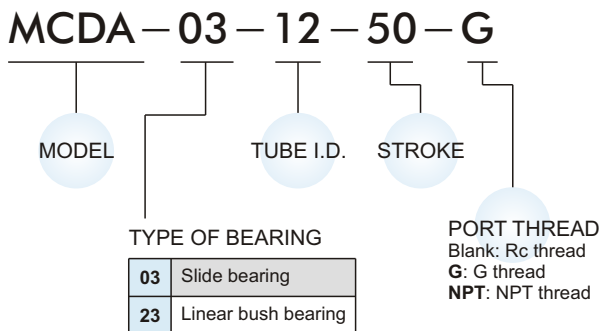
※ RCB, RCE, RCE1 specification, please refer to page V-07, V-09.

### Table for standard stroke

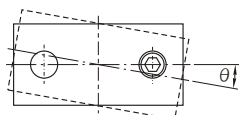
Tube I.D.	Stroke (mm)	Max. stroke
φ 6	10,20,30	50
φ 12	10,15,20,25,30,35,40,45,50,60,70	70
φ 16		120
φ 20	10,15,20,25,30,35,40,45,50,60,70,	130
φ 25	75,80,90,100	150
φ 32		150

- Stroke out of specification is also available.
- Please consult us if stroke out of specification.
- It is possible to adjust length of basic stroke by 0~5mm.

### Order example

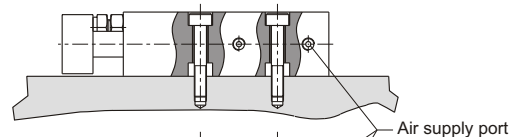


### Anti-roll accuracy

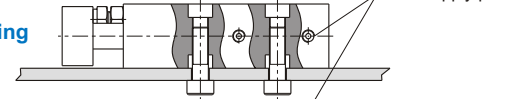


Tube I.D.	φ 6~φ 32
MCDA-03	±0.1°
MCDA-23	±0.15°

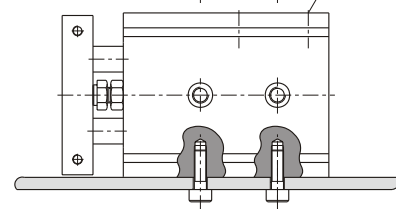
### Top mounting



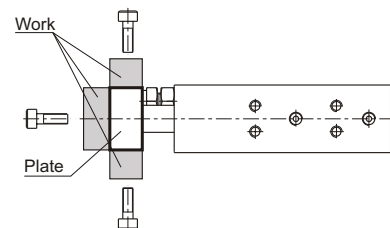
### Bottom mounting



### Side mounting



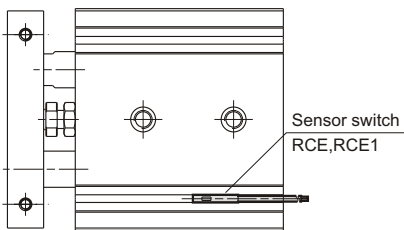
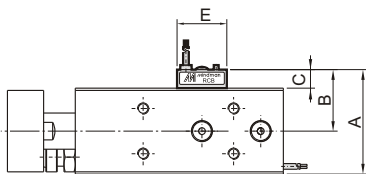
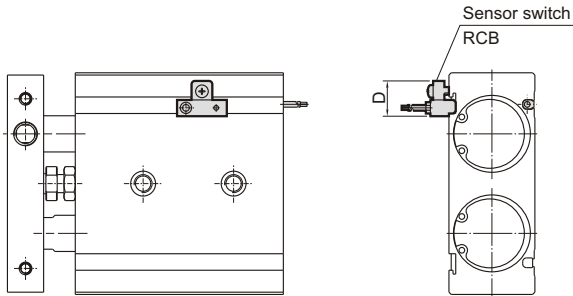
Work can be mounted on three faces of the rod square plate.



### Installation of sensor switch

Sensor switch: RCB, RCE, RCE1

Code Tube I.D.	A	B	C	D	E
12	26.5	17.5	8.5	16	22
16	28.5	18.5	8.5	16	22
20	33.5	21	8.5	16	22
25	38.5	23.5	8.5	16	22
32	46.5	27.5	8.5	16	22



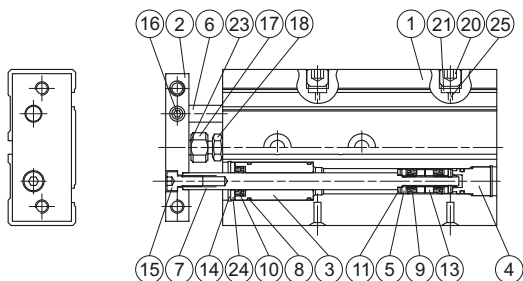
# MCDA-03 Inside structure & Parts list

## DUAL-ROD CYLINDER

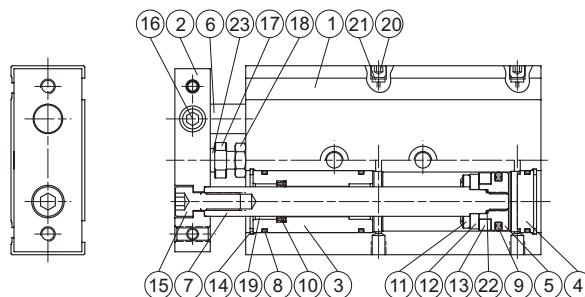


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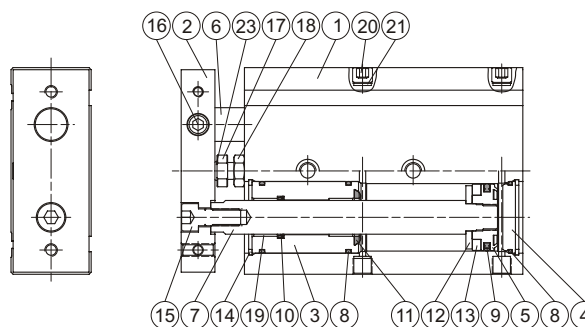
$\phi 6$



$\phi 12 \sim \phi 20$



$\phi 25, \phi 32$



### Material

No.	Part name	Tube I.D.						Note	Q'y	Repair kits (inclusion)
		6	12	16	20	25	32			
1	Body	Aluminum alloy							1	
2	Plate	Aluminum alloy							1	
3	Rod cover	Aluminum alloy							2	
4	End cover	Aluminum alloy							2	
5	Piston	Aluminum alloy							2	
6	Piston rod #1	Stainless steel				※1			1	
7	Piston rod #2	Stainless steel				※1			1	
8	Cover ring	NBR							6	●
9	Piston packing	NBR							2	●
10	Rod packing	NBR							2	●
11	Rod cushion	NBR							2	●
12	Magnet holder	Stainless steel							2	
13	Magnet ring	Magnet material							2	
14	Snap ring	Spring steel							4	
15	Screw	Stainless steel							1	
16	Set screw	Stainless steel							1	
17	Cushion screw	Copper							1	
18	Nut	Carbon steel							1	
19	Rod bush	Bearing alloy							4	
20	Plug (set screw)	Carbon steel							2	
21	Plug ring	NBR							2	●
22	O-ring	NBR						only $\phi 20$	2	●
23	Bumper	PU							1	
24	Rod cover washer	Stainless steel						only $\phi 6$	2	
25	Plug gasket	Stainless steel						only $\phi 6$	1	

※ 1 : Carbon steel

### Order example of repair kits

Tube I.D.	Repair kits
$\phi 6$	PS-MCDA-6
$\phi 12$	PS-MCDA-12
$\phi 16$	PS-MCDA-16
$\phi 20$	PS-MCDA-20
$\phi 25$	PS-MCDA-25
$\phi 32$	PS-MCDA-32



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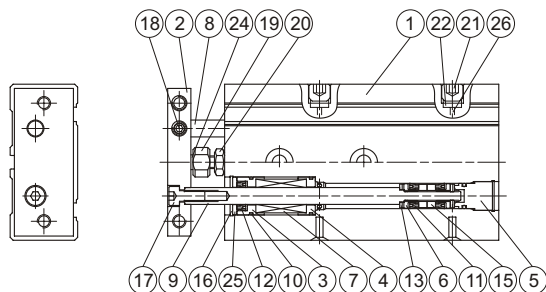
# MCDA-23 Inside structure & Parts list

## DUAL-ROD CYLINDER

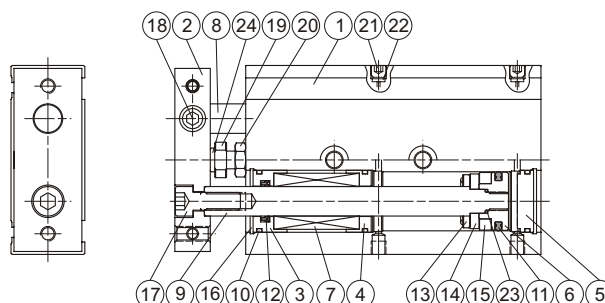


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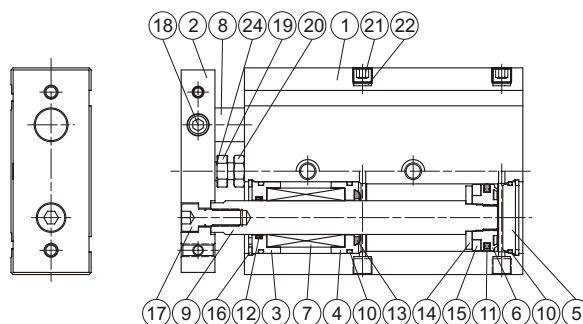
$\phi 6$



$\phi 12 \sim \phi 20$



$\phi 25, \phi 32$



### Material

No.	Part name	Tube I.D.						Note	Q'y	Repair kits (inclusion)
		6	12	16	20	25	32			
1	Body	Aluminum alloy							1	
2	Plate	Aluminum alloy							1	
3	Rod cover #1	Aluminum alloy							2	
4	Rod cover #2	Aluminum alloy							2	
5	End cover	Aluminum alloy							2	
6	Piston	Aluminum alloy							2	
7	Slide bush	—							2	
8	Piston rod #1	Special steel							1	
9	Piston rod #2	Special steel							1	
10	Cover ring	NBR							6	●
11	Piston packing	NBR							2	●
12	Rod packing	NBR							2	●
13	Rod cushion	NBR							2	●
14	Magnet holder	Stainless steel							2	
15	Magnet ring	Magnet material							2	
16	Snap ring	Spring steel							4	
17	Screw	Stainless steel							1	
18	Set screw	Stainless steel							1	
19	Cushion screw	Copper							1	
20	Nut	Carbon steel							1	
21	Plug(set screw)	Carbon steel							2	
22	Plug ring	NBR							2	●
23	O-ring	NBR						only $\phi 20$	2	●
24	Bumper	PU							1	
25	Rod cover washer	Stainless steel						only $\phi 6$	2	
26	Plug gasket	Stainless steel						only $\phi 6$	1	

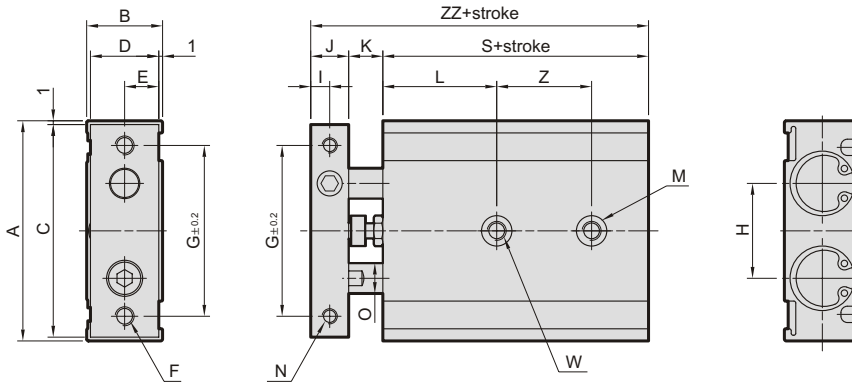
### Order example of repair kits

Tube I.D.	Repair kits
$\phi 6$	PS-MCDA-6
$\phi 12$	PS-MCDA-12
$\phi 16$	PS-MCDA-16
$\phi 20$	PS-MCDA-20
$\phi 25$	PS-MCDA-25
$\phi 32$	PS-MCDA-32

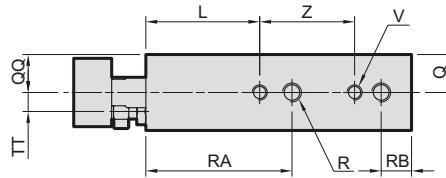


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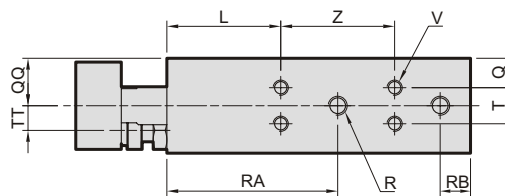
## DUAL-ROD CYLINDER



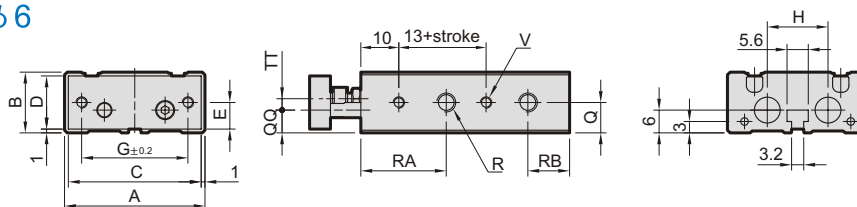
$\phi 12, \phi 16$



$\phi 20 \sim \phi 32$



$\phi 6$



### MCDA-03/MCDA-23

Code Tube I.D.	A	B	C	D	E	F (Thru)	G	H	I	J	K	L	M (Both side)	N (Both side)	O	Q	QQ	R (Both side)	RA	RB	S	T
6	37	16	35	14	7	2-M3×0.5	28	16	2.75	5.5	8	13	2- $\phi 6.5 \times 3.3dp$ ※1	2-M3×0.5 thru	4	8	6	4-M5×0.8	22.5	11	45	
12	46	18	44	16	8	2-M4×0.7	35	19	4	8	9	20	4- $\phi 6.5 \times 3.3dp$	4-M3×0.5×5dp	6	9	10	4-M5×0.8	30	8	55	
16	58	20	56	18	9	2-M5×0.8	45	25	5	10	9	30	4- $\phi 8 \times 4.4dp$	4-M4×0.7×6dp	8	10	10	4-M5×0.8	38.5	8	60	
20	64	25	62	23	11.5	2-M5×0.8	50	28	6	12	12	30	4- $\phi 9.5 \times 5.3dp$	4-M4×0.7×6dp	10	7.75	12.5	4-M5×0.8	45	8	70	9.5
25	80	30	78	28	14	2-M6×1.0	60	35	6	12	12	30	4- $\phi 11 \times 6.3dp$	4-M5×0.8×8dp	12	8.5	15	4-Rc1/8	46	9	72	13
32	98	38	96	36	18	2-M6×1.0	75	44	8	16	14	30	4- $\phi 11 \times 6.3dp$	4-M5×0.8×8dp	16	9	19	4-Rc1/8	56	10	82	20

Code Tube I.D.	TT	V (Both side)	W (Thru)	Z (Stroke)				ZZ
				10, 15, 20, 25	30, 35, 40, 45, 50	60, 70, 75	80, 90, 100	
6	3	4-M3×0.5×4.5dp	2- $\phi 3.4$	10+1/2 stroke (※2)				58.5
12	3.5	4-M3×0.5×4.5dp	2-M4×0.7	30	40	50		72
16	5	4-M4×0.7×5dp	2-M5×0.8	25	35	45	55	79
20	6.5	8-M4×0.7×5.5dp	2-M6×1.0	30	40	60		94
25	9	8-M5×0.8×7.5dp	2-M8×1.25	30	40	60		96
32	11.5	8-M5×0.8×7.5dp	2-M8×1.25	40	50	70		112

※1:  $\phi 6$ - single side.

※2:  $\phi 6$ -stroke (10, 20, 30)