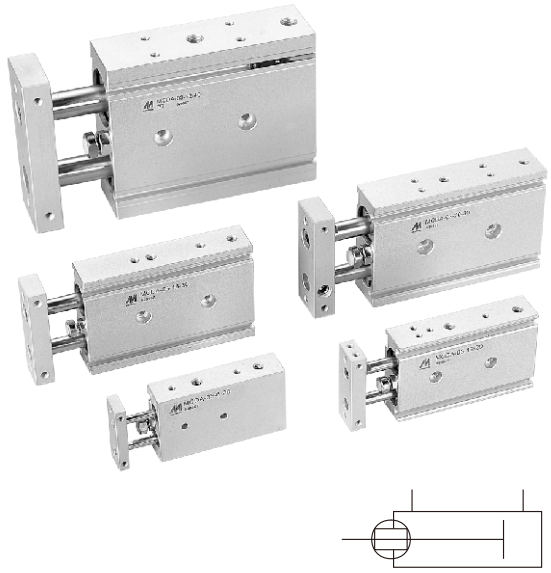
MCDA series

DUAL-ROD CYLINDER



Features

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

Specification

Model		MCDA					
Acting type		Double acting					
Tube I.D.(mm)		6	12	16	20	25	32
Port size		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℃ (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)					
Sensor switch (※1)		RCB(※2), RCE, RCE1, RDEP					

※1. RCB, RCE, RCE1, RDEP specification, please refer to page **8-8**, **10**, **15**.
※2. RCB only for tube I.D. 12~32.

Order example

MCDA − 03 − 12 − 50 − □

- MODEL
- TYPE OF BEARING

03	Slide bearing
23	Linear bush bearing

- TUBE I.D.
- STROKE
- PORT THREAD

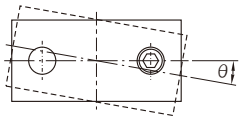
Blank: M5×0.8 (for φ6~φ20)
Blank: Rc thread
G: G thread
NPT: NPT thread (for φ25, φ32)

Table for standard stroke

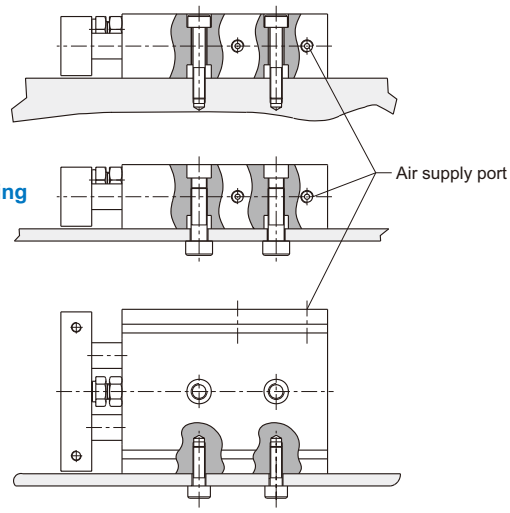
Tube I.D.	Stroke (mm)	Max. stroke
φ6	10,20,30	50
φ12	10,15,20,25,30,35,40,45,50,60,70	70
φ16	10,15,20,25,30,35,40,45,50,60,70, 75,80,90,100	120
φ20		130
φ25		150
φ32		150

- 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.

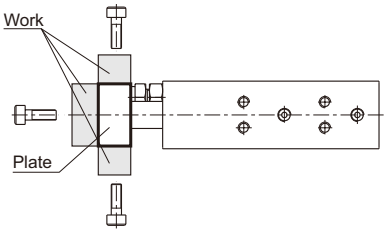
Anti-roll accuracy



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

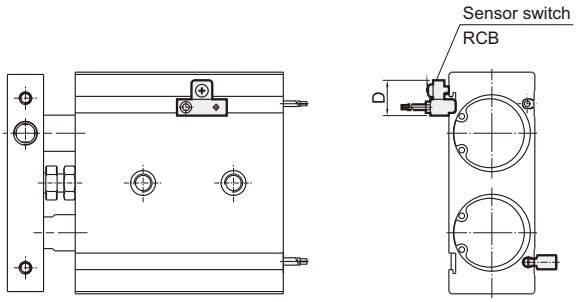


Work can be mounted on three faces of the rod square plate.

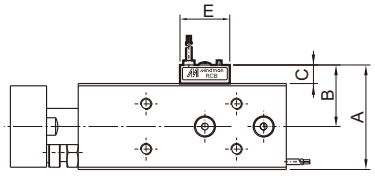


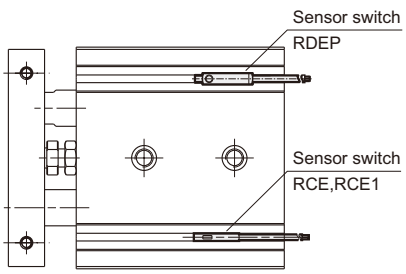
Installation of sensor switch

Sensor switch: RCB, RCE, RCE1, RDEP



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



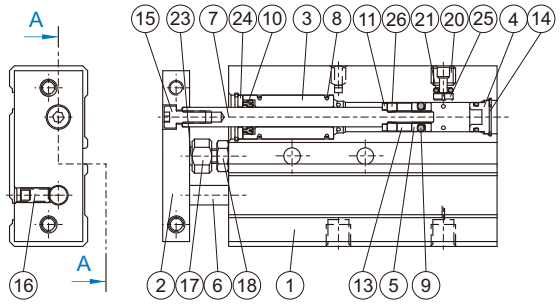


MCDA-03 Inside structure & Parts list

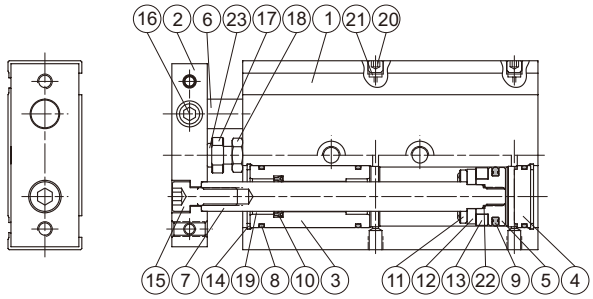
DUAL-ROD CYLINDER

mindman

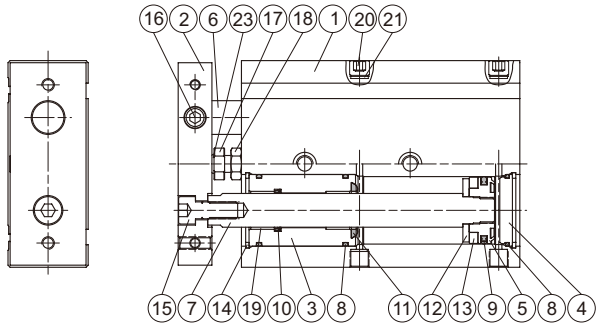
ϕ6



ϕ12~ϕ20



ϕ25, ϕ32



Material

No.	Part name \ Tube I.D.	6	12	16	20	25	32	Note	Q'y	Repair kits (inclusion)
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	
7	Piston rod #2	Stainless steel				※			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	Stainless steel							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 ϕ20	2	●
23	Bumper	PU							1	
24	Rod cover washer	Stainless steel						only ϕ6	2	
25	Plug gasket	Stainless steel						only ϕ6	1	
26	Spaced ring	Aluminium						only ϕ6	2	

※ Carbon steel

Order example of repair kits

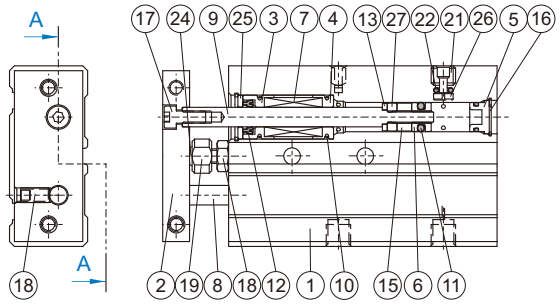
Tube I.D.	Repair kits
ϕ6	**PS-MCDA-6**
ϕ12	**PS-MCDA-12**
ϕ16	**PS-MCDA-16**
ϕ20	**PS-MCDA-20**
ϕ25	**PS-MCDA-25**
ϕ32	**PS-MCDA-32**

MCDA-23 Inside structure & Parts list

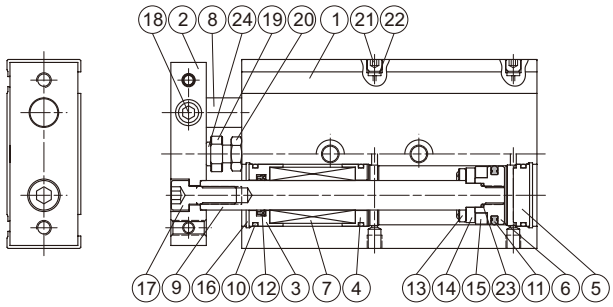
DUAL-ROD CYLINDER

mindman

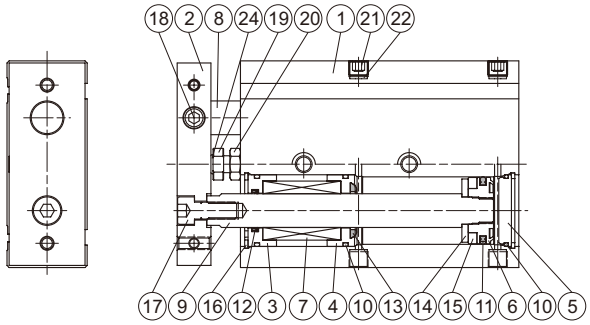
ϕ6



ϕ12~ϕ20



ϕ25, ϕ32

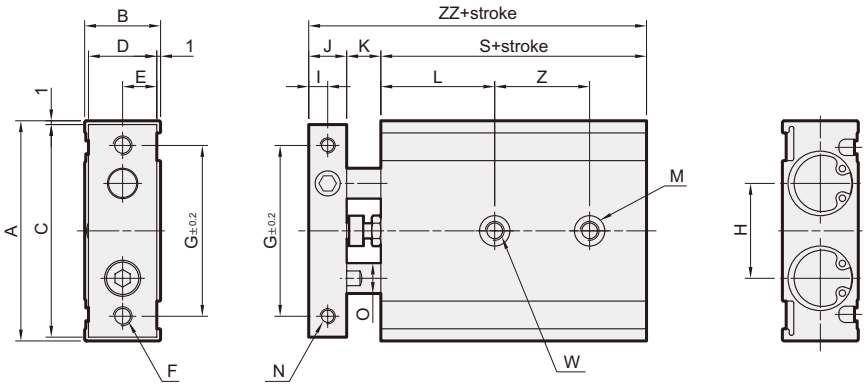


Material

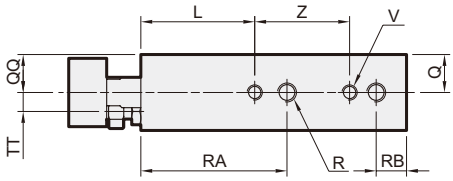
No.	Part name \ Tube I.D.	6	12	16	20	25	32	Note	Q'y	Repair kits (inclusion)
1	Body	Aluminum alloy							1	
2	Plate	Aluminum alloy							1	
3	Rod cover #1	Aluminum alloy							2	
4	Rod cover #2	Aluminum alloy							2	
5	End cover	Aluminum alloy							2	
6	Piston	Aluminum alloy							2	
7	Slide bush	—							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	Stainless steel							1	
20	Nut	Carbon steel							1	
21	Plug(set screw)	Carbon steel							2	
22	Plug ring	NBR							2	●
23	O-ring	NBR						only ϕ20	2	●
24	Bumper	PU							1	
25	Rod cover washer	Stainless steel						only ϕ6	2	
26	Plug gasket	Stainless steel						only ϕ6	1	
27	Spaced ring	Aluminum						only ϕ6	2	

Order example of repair kits

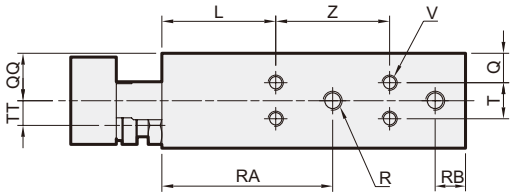
Tube I.D.	Repair kits
ϕ6	**PS-MCDA-6**
ϕ12	**PS-MCDA-12**
ϕ16	**PS-MCDA-16**
ϕ20	**PS-MCDA-20**
ϕ25	**PS-MCDA-25**
ϕ32	**PS-MCDA-32**



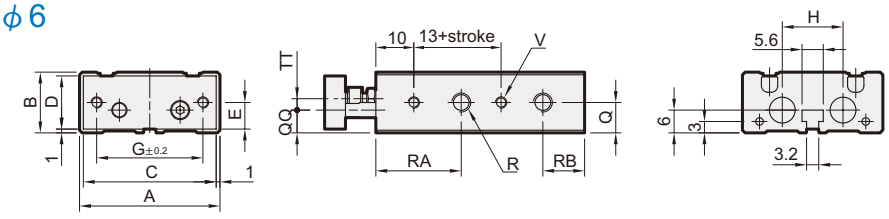
ϕ12, ϕ16



ϕ20~ϕ32



ϕ6



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-ϕ6.5×3.3dp ※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-ϕ6.5×3.3dp	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-ϕ8×4.4dp	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-ϕ9.5×5.3dp	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-ϕ11×6.3dp	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-ϕ11×6.3dp	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) 10, 15, 20, 25	30,35,40,45,50	60, 70, 75	80	90, 100	ZZ
6	3	4-M3×0.5×4.5dp	2-ϕ3.4	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. ϕ6- single side.
※2. ϕ6- stroke (10, 20, 30)