

MCRPMD series

MAGNETICALLY COUPLED RODLESS CYLINDER



Table for standard stroke:

Tube I.D.	Stroke (mm)	Max. stroke
φ 20	100, 150, 200, 250, 300, 350, 400	1000
φ 25	450, 500, 600, 700, 800	

※: Minimum stroke unit 1mm.

Order example:

MCRPMD – G – 20 – 100 – BSP

MODEL

TUBE I.D.

STROKE

PORT THREAD
Blank: PT thread
BSP: BSP thread
NPT: NPT thread

PIPING TYPE

Blank: Standard type



G: Centralized piping



Cylinder weight:

unit:g

Model	Basic weight MCRPMD	Stroke 100 mm MCRPMD
Tube I.D.		
φ 20	520	102
φ 25	712	115

Features:

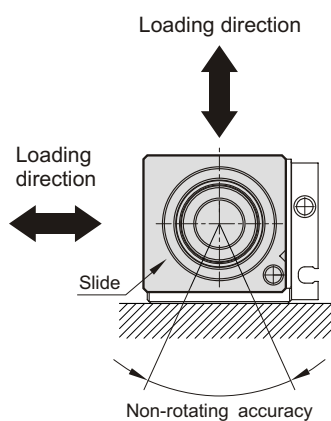
- 50 % space saving.
- Magnetic transit design. Magnetic force transmits the movement with piston side magnet and slider magnet.
- Stainless tube, light weighted and durable.
- All series are with switch types.

Specification:

Model	MCRPMD	
Acting type	Double acting	
Tube I.D. (mm)	20	25
Port size	PT1/8	
Medium	Air	
Max. operating pressure	7 kgf/cm ²	
Min. operating pressure	1.6 kgf/cm ²	1.5 kgf/cm ²
Proof pressure	10 kgf/cm ²	
Ambient temperature	+5°C ~ +60°C	
Lubricator	Without lubrication	
Available speed range	100~500 mm/sec	
Holding force	231 N	363 N
Sensor switch	RCE, RCE1	

※ RCE, RCE1 specifications please refer to the R-09 page.

Maximum allowable directly load:



Tube I.D.	Max. allowable load (kg)	Non-rotating accuracy	Non-rotating accuracy Allowable stroke
φ 20	1.1	4°	300 mm
φ 25	1.1	4°	300 mm

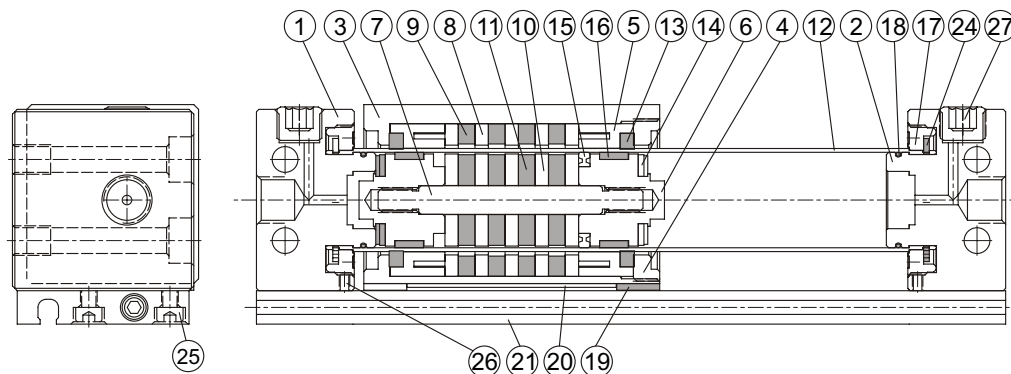
※ Non-rotating angle accuracy will be reduced by distortion due to longer stroke and switch rail.

MCRPMD Inside structure & Parts list $\phi 20$, $\phi 25$

MAGNETICALLY COUPLED RODLESS CYLINDER



Standard type



Material

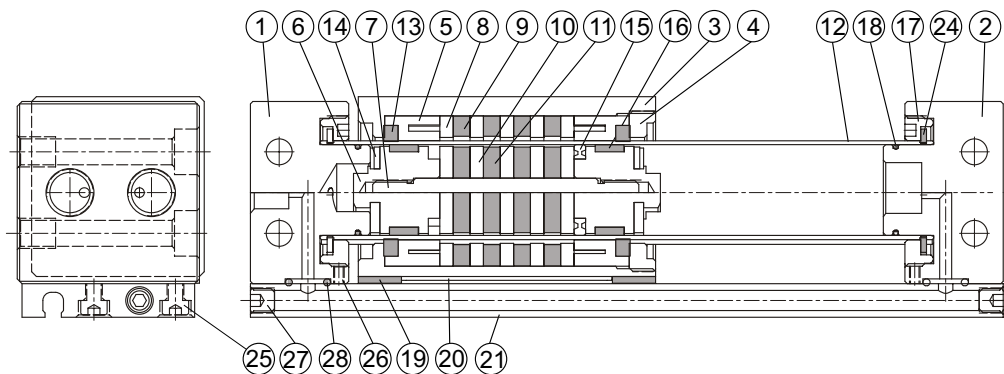
No.	Part name	Material
1	Cover A	Aluminum alloy
2	Cover B	Aluminum alloy
3	Slider body	Aluminum alloy
4	Body cover	Aluminum alloy
5	Body wear ring	POM
6	Piston	Aluminum alloy
7	Shaft	Stainless steel
8	Slider side yoke	Carbon steel
9	Slider side magnet	Magnet material
10	Piston side yoke	Carbon steel
11	Piston side magnet	Magnet material
12	Tube	Stainless steel
13	Lubretainer	Special resin
14	Cushion	NBR
15	Piston seal	NBR
16	Wear ring	POM
17	Tube fixed nut	Aluminum alloy
18	O ring	NBR
19	Wear ring	POM
20	Magnetic shielding plate	Carbon steel
21	Switch rail	Aluminum alloy
22	Magnet	Magnet material
23	Spring	Stainless steel
24	Snap ring	Spring steel
25	Bolt	SCM
26	Screw	SCM
27	Seal screw	Carbon steel

MCRPMD Inside structure & Parts list $\phi 20$, $\phi 25$

MAGNETICALLY COUPLED RODLESS CYLINDER



Centralized piping type



Material

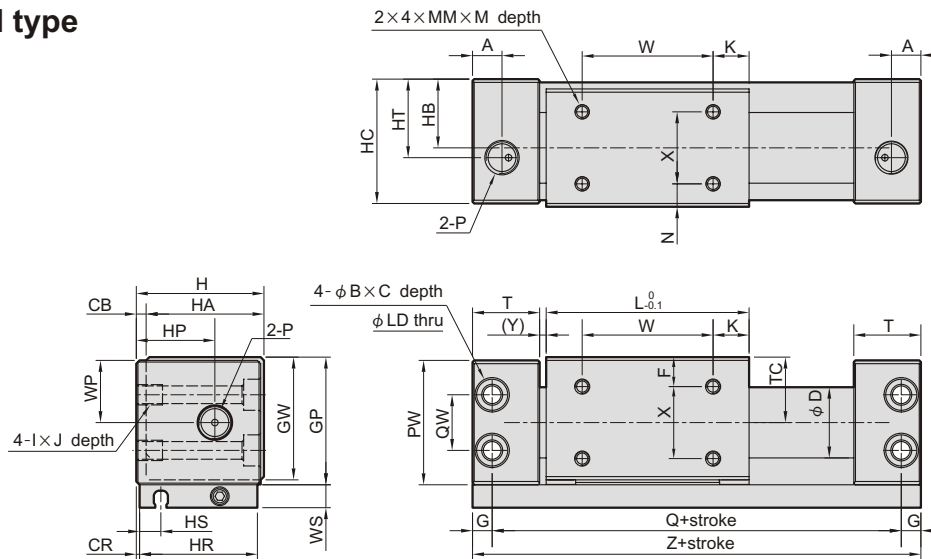
No.	Part name	Material
1	Cover A	Aluminum alloy
2	Cover B	Aluminum alloy
3	Silder body	Aluminum alloy
4	Body cover	Aluminum alloy
5	Body wear ring	POM
6	Piston	Aluminum alloy
7	Shaft	Stainless steel
8	Silder side yoke	Carbon steel
9	Silder side magnet	Magnet material
10	Piston side yoke	Carbon steel
11	Piston side magnet	Magnet material
12	Tube	Stainless steel
13	Lubretainer	Special resin
14	Cushion	NBR
15	Piston seal	NBR
16	Wear ring	POM
17	Tube fixed nut	Aluminum alloy
18	O ring	NBR
19	Wear ring	POM
20	Magnetic shielding plate	Carbon steel
21	Switch rail	Aluminum alloy
22	Magnet	Magnet material
23	Spring	Stainless steel
24	Snap ring	Spring steel
25	Bolt	SCM
26	Screw	SCM
27	Screw	SCM
28	O ring	NBR

MCRPMD Dimensions $\phi 20$, $\phi 25$

MAGNETICALLY COUPLED RODLESS CYLINDER



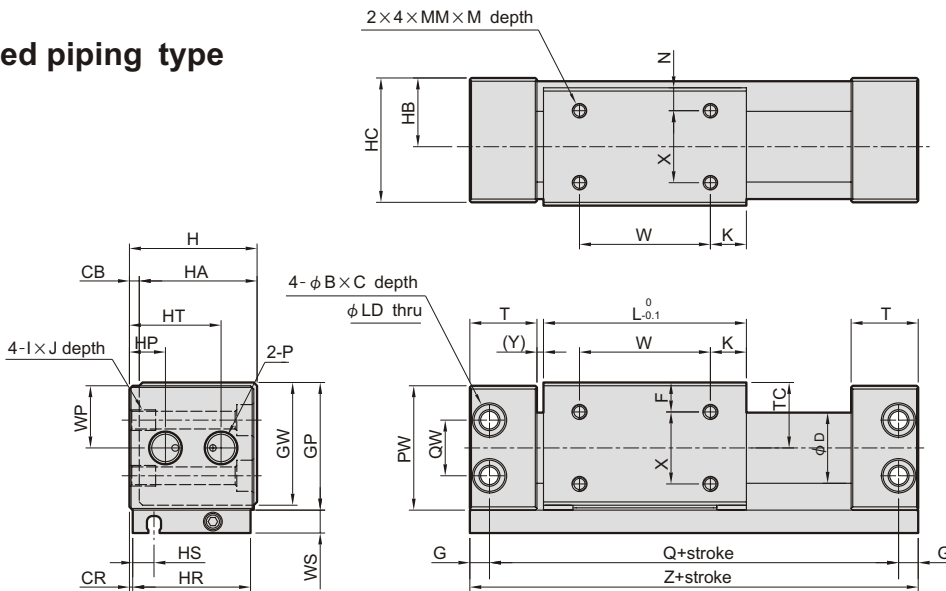
Standard type



Code Tube I.D.	A	B	C	CB	CR	D	F	G	GP	GW	H	HA	HB	HC	HP	HR	HS	HT	I	J	K	L	LD	M
20	9	9.5	5.2	3	1	21.6	9	6	39	37.5	39	36	21	38	24	36	6.5	24	M6×1.0	8	11	62	5.4	5
25	9	9.5	5.2	3	1	26.4	8.5	6	44	42.5	44	41	23.5	43	23.5	41	6.5	23.5	M6×1.0	8	15	70	5.4	6

Code Tube I.D.	MM	N	P	PW	Q	QW	T	TC	W	WP	WS	X	Y	Z
20	M4×0.7	7	PT1/8	38	95	17	20.5	20	40	19	7	22	2	107
25	M5×0.8	6.5	PT1/8	43	105	20	21.5	22.5	40	21.5	7	28	2	117

Centralized piping type



Code Tube I.D.	B	C	CB	CR	D	F	G	GP	GW	H	HA	HB	HC	HP	HR	HS	HT	I	J	K	L	LD	M	MM
20	9.5	5.2	3	1	21.6	9	6	39	37.5	39	36	21	38	11	36	6.5	28	M6×1.0	8	11	62	5.4	5	M4×0.7
25	9.5	5.2	3	1	26.4	8.5	6	44	42.5	44	41	23.5	43	14.5	41	6.5	33.5	M6×1.0	8	15	70	5.4	6	M5×0.8

Code Tube I.D.	N	P	PW	Q	QW	T	TC	W	WP	WS	X	Y	Z
20	7	PT1/8	38	95	17	20.5	20	40	19	7	22	2	107
25	6.5	PT1/8	43	105	20	21.5	22.5	40	21.5	7	28	2	117