






# Rodless magnetic cylinder—RMS Series

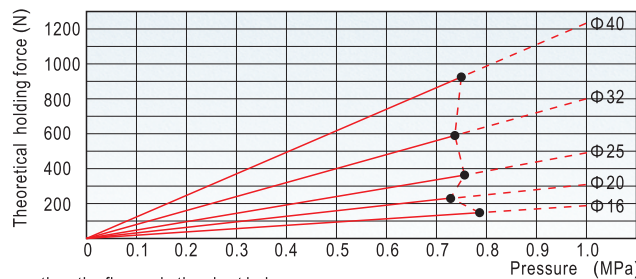
## Product series

Series name	Mounting type			Acting type	Bore size
	Basic	LB	FA		
RMS Series 	●	●	●	Double acting	16 20 25 32 40
RMSF Series 	●	●	●		Double acting
RMSF Series 	●	●	●	Double acting	
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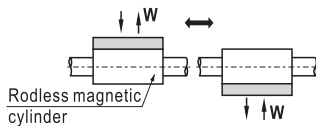
## Installation and application

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1. The maxi load to move must be less than the theoretical holding force.

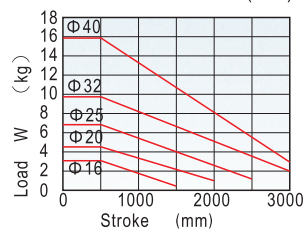


2. Horizontal mounting, the permissible radial load must be lower than the figures in the chart below.

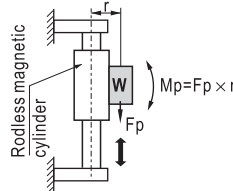


Horizontal mounting (radial load)

Bore size	Max. load W
16	2.8kg
20	4.7kg
25	6.8kg
32	9.7kg
40	15.8kg



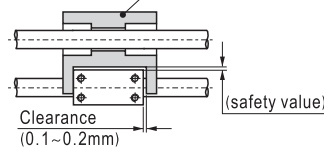
3. Vertical mounting, the allowable direction moment must be lower than the figures in the chart below, the dimensions of geometrical can be determined by the relation graph between loading and stroke.



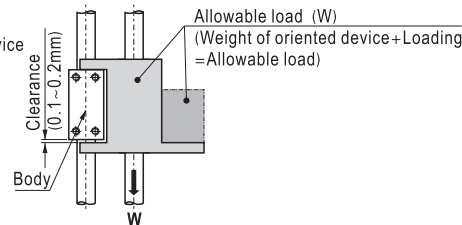
Bore size	Allowable direction moment Mp
16	1.20kgf · m
20	2.45kgf · m
25	3.92kgf · m
32	8.83kgf · m
40	13.7kgf · m

Note) Loading should be used with oriented device, example:

Horizontal oriented device Loading table



Vertical oriented device



- Dirty substances in the pipe must be eliminated before cylinder is connected with pipeline to prevent the entrance of impurities into the cylinder.
- The medium used by cylinder shall be filtered to 40 μm or below.
- If the cylinder is dismantled and stored for a long time, pay attention to conduct anti-rust treatment to the surface. Anti-dust jam cap shall be added in air inlet and outlet ports.



# Rodless magnetic cylinder

## RMS Series



### Specification

Series name	RMS, RMSF Series					RMSP Series		
	Bore size (mm)	16	20	25	32	40	16	20
Acting type	Double acting							
Fluid	Air(to be filtered by 40 μ m filter element)							
Operating pressure	0.15~0.7MPa(23~100psi)(1.5~7bar)							
Proof pressure	1.0MPa(145psi)(10.0bar)							
Temperature °C	-10~60							
Speed range mm/s	50~400							
Stroke tolerance mm	0~250 <sup>+1.0</sup> <sub>0</sub> 251~1000 <sup>+1.4</sup> <sub>0</sub> 1001~ <sup>+1.8</sup> <sub>0</sub>							
Cushion type	Variable cushion+Fixed cushion							
Port size ①	M5 × 0.8	1/8"			1/4"	M5 × 0.8	1/8"	
Safe holding force N	140	200	360	550	850	140	200	550

① PT thread, NPT and G thread are available.

### Stroke

Bore size (mm)	Standard stroke (mm)										Max. stroke(mm)						
16	50	100	150	200	250	300	350	400	450	500	1500						
20	50	100	150	200	250	300	350	400	450	500	600	700	750	800	900	1000	2000
25	50	100	150	200	250	300	350	400	450	500	600	700	750	800	900	1000	2500
32	50	100	150	200	250	300	350	400	450	500	600	700	750	800	900	1000	3000
40	50	100	150	200	250	300	350	400	450	500	600	700	750	800	900	1000	3000

Note) Consult us for non-standard stroke.

### Ordering code

**RMS**  **20 × 200**

**Model**

RMS: Rodless magnetic cylinder

**Version**

Blank: basic version  
P: P size version  
F: F size version

**Bore size**

Series name	Bore size
RMS, RMSF	16, 20, 25, 32, 40
RMSP	16, 20, 32

**Thread type** ②

Blank: PT  
T: NPT  
G: G

**Mounting type**

Blank: non bracket  
LB: LB type  
FA: FA type ①

**Stroke**

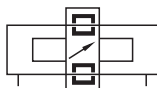
Refer to stroke table for details

Remark:

① RMSF40 series do not have FA mounting accessories.

② Blank on thread code means metric M thread. There is only metric thread for Φ 16. If G or NPT thread is needed, please comment.

### Symbol



### Product feature

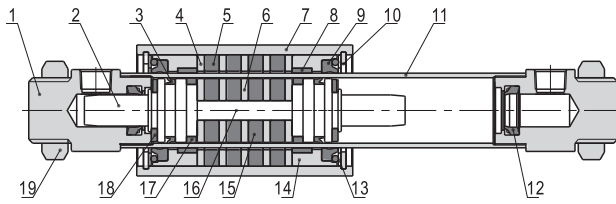
1. This magnetic cylinder is basically a pneumatic rodless cylinder featuring a mobile piston fitted with annular magnets. The mobile carriage is also equipped with magnets to provide magnetic coupling (carriage/piston). The carriage slide freely along the main tube.
2. It is dust-proof as the isolation between the carriage and piston.
3. It is compact in space.
4. The non adjustable rubber bumpers and the adjustable pneumatic cushioning on both ends of the cylinder ensure the smooth action.



# Rodless magnetic cylinder

## RMS Series

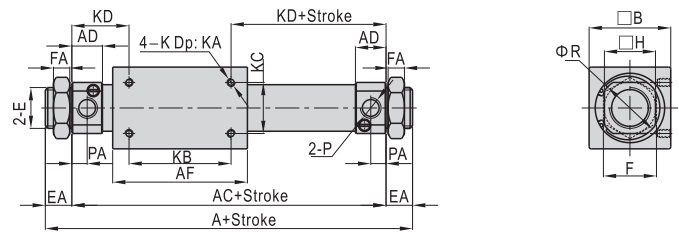
### Inner structure and material of major parts



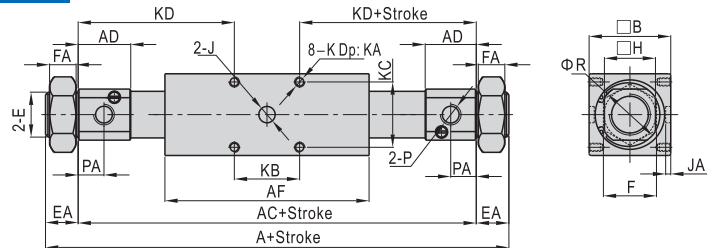
NO.	Item	Material
1	End cap	Aluminum alloy
2	Piston	Aluminum alloy
3	Piston seal	TPU
4	Magnet washer	Carbon steel
5	Magnet	Rare-earth material
6	Magnet washer	Carbon steel
7	Body	Aluminum alloy
8	Wear ring	Wear resistant material
9	Scraping dust ring	Plastics
10	C Clip	Spring steel
11	Barrel	Stainless steel
12	Cushion O-ring	TPU
13	Washer	Stainless steel
14	Cover	Aluminum alloy
15	Magnet	Rare-earth material
16	Connecting rod	Stainless steel
17	Wear ring	Wear resistant material
18	Bumper	NBR
19	Nut	Stainless steel

### Dimensions

#### RMS、RMS-P



#### RMS-F



Model\Item	A	AC	AD	AF	B	E	EA	F	FA	H
RMS16	103	83	10	57		M10 × 1.0	10	14	4	
RMSP16	112	92	14.5	57	35	M10 × 1.0	10	14	4	20
RMSF16	205	181	34	80		M16 × 1.5	12	24	8	
RMS20	132	106	15	66		M20 × 1.5	13	26	8	
RMSP20	143	115	19.5	66	40	M20 × 1.5	14	26	8	25
RMSF20	217	185	29.5	90		M22 × 1.5	16	29	7	
RMS25	137	111	15	70		M26 × 1.5	13	32	8	
RMSF25	238	206	37.5	90	46	M22 × 1.5	16	29	7	30
RMS32	156	124	16	80		M26 × 1.5		32	8	
RMSP32	165	133	20.5	80	60	M26 × 1.5	16	32	8	36
RMSF32	270	238	48	110		M30 × 1.5		36	7	
RMS40	182	150	22	92	70	M32 × 2.0		41	10	46
RMSF40	327	295	44.5	130		M38 × 1.5	16	46	8	

Model\Item	J	JA	K	KA	KB	KC	KD	P	PA	R
RMS16	-	-	M4 × 0.7	5	35	19	24		5.5	
RMSP16	-	-	M4 × 0.7	7	34	25	29	M5 × 0.8	7.5	22
RMSF16	8	3	M5 × 0.8	7.5	26	26	77.5		20	
RMS20	-	-	M4 × 0.7	5.5	50	25	28	1/8"	7.5	
RMSP20	-	-	M5 × 0.8	7	40	30	37.5	1/8"	10	29
RMSF20	8	2.5	M5 × 0.8	8.5	32	32	76		15	
RMS25	-	-	M5 × 0.8	7.5	50	30	30.5	1/8"	7.5	
RMSF25	10	3	M6 × 1.0	10	36	36	85	1/8"	20	33.5
RMS32	-	-		8	50	40	37	1/8"	8	
RMSP32	-	-	M6 × 1.0	8	50	40	41.5	1/8"	10	39.5
RMSF32	10	3.5		12.5	48	48	95		28	
RMS40	-	-	M6 × 1.0	9	60	40	45	1/4"	11	
RMSF40	12	4.5	M8 × 1.25	16	50	56	122	1/4"	25	49.5

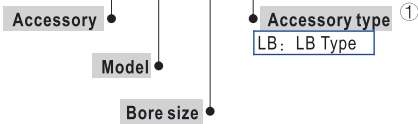


# Rodless magnetic cylinder

## RMS Series

### Ordering code of accessories

#### F-RMS 32 LB



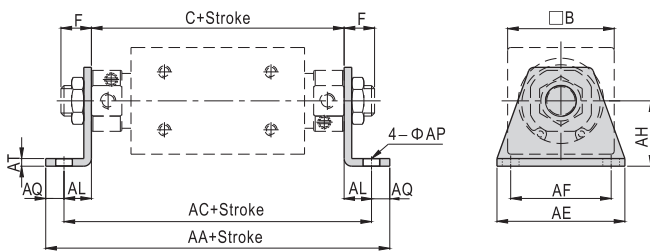
① The list accessories are for RMS cylinder. Accessories that are adaptable to other cylinder are not shown. Please refer to accessory list for selection and ordering information.

### Accessory selection

Accessories\Cylinder model	RMS	RMSP	RMSF
Mounting accessories			
LB	●	●	●
FA	●	●	●

### Dimensions

#### RMS-LB, RMSP-LB

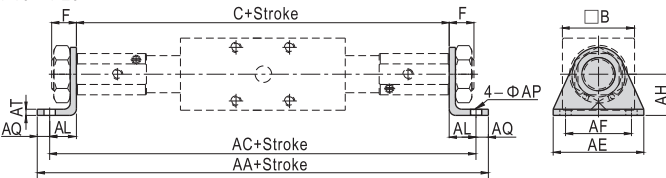


Bore size\Item	AA		AC		C		F	
	RMS	RMSP	RMS	RMSP	RMS	RMSP	RMS	RMSP
16	113	122	101	110	83	92	10	10
20	158	167	142	151	106	115	13	14
25	167	-	151	-	111	-	13	-
32	184	193	170	179	124	133	16	16
40	216	-	196	-	150	-	16	-

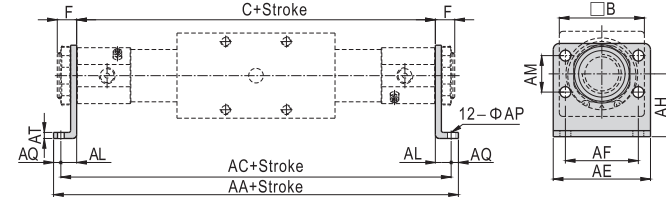
Bore size\Item	AE	AF	AH	AL	AP	AQ	AT	B
	16	42	33	20	9	5.5	6	2.5
20	43	30	23	18	6.5	8	3	40
25	54	40	26	20	6.5	8	4	46
32	62	46	33	23	7	7	4	60
40	75	55	38	23	9	10	5	70

#### RMSF-LB

φ16~φ25



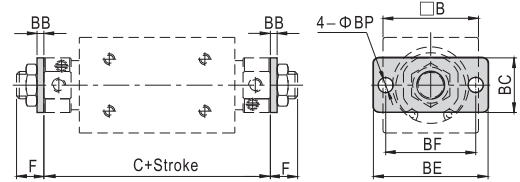
φ32, φ40



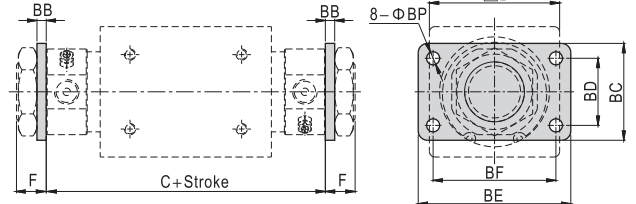
Bore size\Item	AA	AC	AE	AF	AH	AL	AM	AP	AQ	AT	B	C	F
	16	221	209	44	32	20	14	-	5.5	6	2.5	35	181
20	235	219	54	40	23	17	-	6.5	8	3	40	185	16
25	256	240	54	40	26	17	-	6.5	8	4	46	206	16
32	280	266	66	52	33	14	28	7	7	4	60	238	16
40	353	333	80	60	38	19	30	9	10	5	70	295	16

#### RMS-FA, RMSP-FA

φ16~φ32



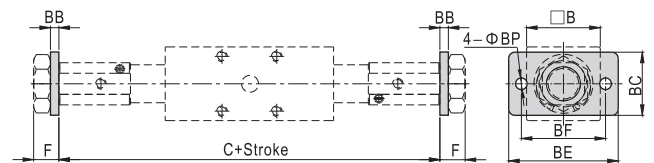
φ40



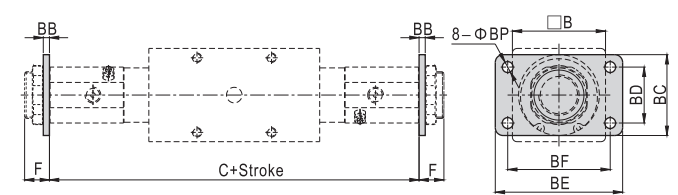
Bore size\Item	B	BB	BC	BD	BE	BF	BP	C	F
	16	35	2.5	20	-	42	33	5.5	83
20	40	4	34	-	75	60	7	106	115
25	46	4	40	-	75	60	7	111	-
32	60	4	40	-	75	60	7	124	133
40	70	5	52	36	82	66	7	150	-

#### RMSF-FA

φ16~φ25



φ32



Bore size\Item	B	BB	BC	BD	BE	BF	BP	C	F
	16	35	4	30	-	52	40	5.5	181
20	40	4	38	-	64	50	6.5	185	16
25	46	4	38	-	64	50	6.5	206	16
32	60	4	50	36	84	70	6.5	238	16

### List for ordering code of accessories

Bore size\accessories	Cylinder model	Mounting accessories	
		LB	FA
16	RMS	F-RMS16LB	F-PB12FA
	RMSP	F-RMSF16LB	F-M12FA
	RMSF	F-RMSF16LB	F-M12FA
20	RMS	F-RMS20LB	F-MF20FA
	RMSP	F-RMSF20LB	F-MA20FA
	RMSF	F-RMSF20LB	F-MA20FA
25	RMS	F-RMS25LB	F-MF25FA
	RMSP	F-RMSF25LB	F-MA20FA
	RMSF	F-RMSF25LB	F-MA20FA
32	RMS	F-RMS32LB	F-MF25FA
	RMSP	F-RMSF32LB	F-MA40FA
	RMSF	F-RMSF32LB	F-MA40FA
40	RMS	F-RMS40LB	F-MF40FA
	RMSF	F-RMSF40LB	-

