



Rodless magnetic cylinder——RMS Series

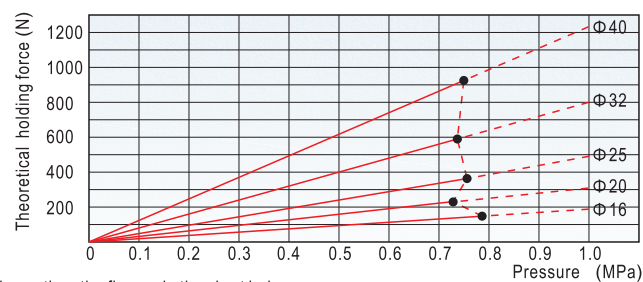
Product series

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

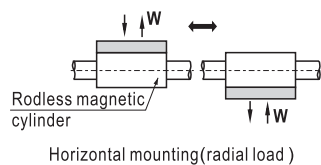
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Installation and application

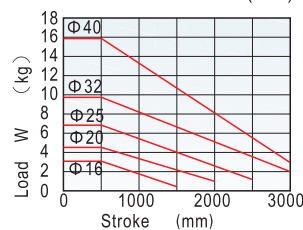
1. The maxi load to move must be less than the theoretical holding force.



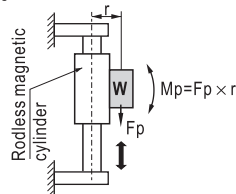
2. Horizontal mounting, the permissible radial load must be lower than the figures in the chart below.



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

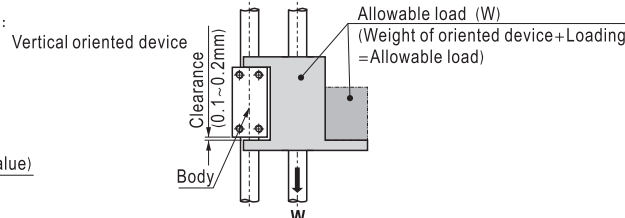
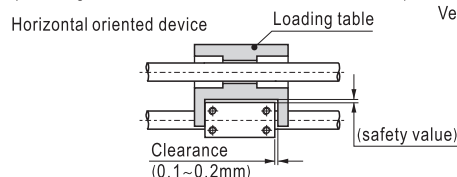


3. Vertical mounting, the allowable direction moment must be lower than the figures in the chart below, the dimensions of geometrical can be determined by the relation graph between loading and stroke.



Bore size	Allowable direction moment M _p
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:



4. Dirty substances in the pipe must be eliminated before cylinder is connected with pipeline to prevent the entrance of impurities into the cylinder.
5. The medium used by cylinder shall be filtered to 40 μm or below.
6. 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.



RMS



Rodless magnetic cylinder



RMS Series



Specification

Series name	RMS, RMSF Series					RMSP Series		
Bore size (mm)	16	20	25	32	40	16	20	32
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 ℃	-10~60							
Speed range mm/s	50~400							
Stroke tolerance mm	0~250 ^{+1.0} ₀ 251~1000 ^{+1.4} ₀ 1001~ ^{+1.8} ₀							
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

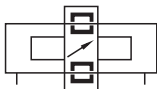
① PT thread、NPT and G thread are available.

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.

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.



RMS

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.

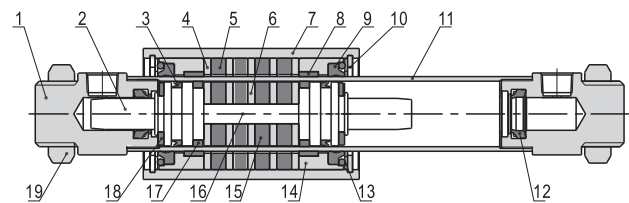


Rodless magnetic cylinder



RMS Series

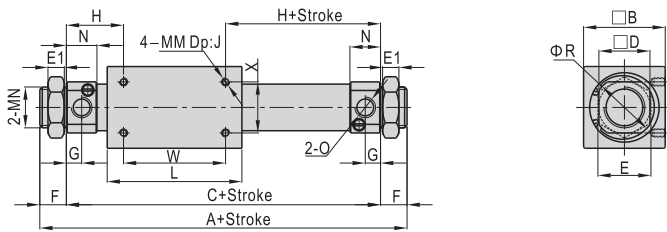
Inner structure and material of major parts



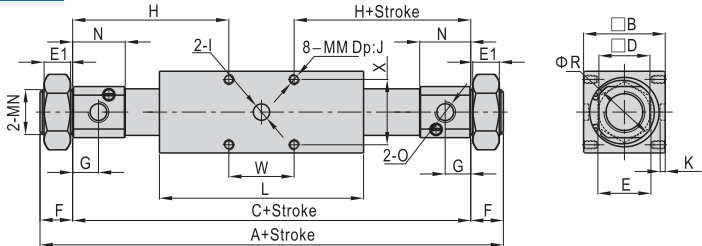
NO.	Item	Material
1	End cap	Aluminum alloy
2	Piston	Aluminum alloy
3	Piston seal	TPU
4	Magnet washer	Carbon steel
5	Magnet	Rare-earth material
6	Magnet washer	Carbon steel
7	Body	Aluminum alloy
8	Wear ring	Wear resistant material
9	Scraping dust ring	Plastics
10	C Clip	Spring steel
11	Barrel	Stainless 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	B	C	D	E	E1	F	G	H	I	J	K
RMS16	103	35	83	20	14	4	10	5.5	24	-	5	-
RMSF16	112		92		14	4	10	7.5	29	-	7	-
RMSF16	205		181		24	8	12	20	77.5	8	7.5	3
RMS20	132	40	106	25	26	8	13	7.5	28	-	5.5	-
RMSF20	141		115		26	8	14	10	37.5	-	7	-
RMSF20	217		185		29	7	16	15	76	8	8.5	2.5
RMS25	137	46	111	30	32	8	13	7.5	30.5	-	7.5	-
RMSF25	238		206		29	7	16	20	85	10	10	3
RMSF25	156		124		32	8	-	8	37	-	8	-
RMS32	165	60	133	36	32	8	16	10	41.5	-	8	-
RMSF32	270		238		36	7	-	28	94.6	10	12.5	3.5
RMSF32	270		238		36	7	-	28	94.6	10	12.5	3.5
RMS40	182	70	150	46	41	10	16	11	45	-	9	-
RMSF40	327		295		46	8	-	25	122	12	16	4.5
RMSF40	327		295		46	8	-	25	122	12	16	4.5

Model\Item	L	MM	MN	N	O	R	X	W
RMS16	57	M4 × 0.7	M10 × 1.0	10	M5 × 0.8	22	19	35
RMSF16	57	M4 × 0.7	M10 × 1.0	14.5			25	34
RMSF16	80	M5 × 0.8	M16 × 1.5	34			26	26
RMS20	66	M4 × 0.7	M20 × 1.5	15	1/8"	29	25	50
RMSF20	66	M5 × 0.8	M20 × 1.5	19.5	1/8"		30	40
RMSF20	90	M5 × 0.8	M22 × 1.5	29.5	1/8"		32	32
RMS25	70	M5 × 0.8	M26 × 1.5	15	1/8"	33.5	30	50
RMSF25	90	M6 × 1.0	M22 × 1.5	37.5	1/8"		36	36
RMSF25	90	M6 × 1.0	M22 × 1.5	37.5	1/8"		36	36
RMS32	80	M6 × 1.0	M26 × 1.5	16	1/8"	39.5	40	50
RMSF32	80		M26 × 1.5	20.5	1/8"		48	48
RMSF32	110		M30 × 1.5	48	1/8"		48	48
RMS40	92	M6 × 1.0	M32 × 2.0	22	1/4"	49.5	40	60
RMSF40	130	M8 × 1.25	M38 × 1.5	44.5	1/4"		56	50



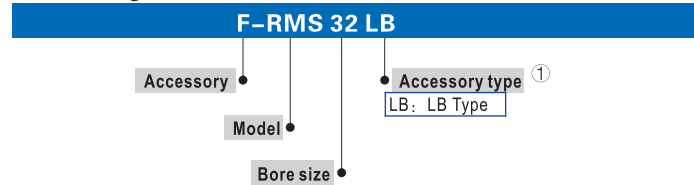
RMS

Rodless magnetic cylinder

AirTAC

RMS Series

Ordering code of accessories



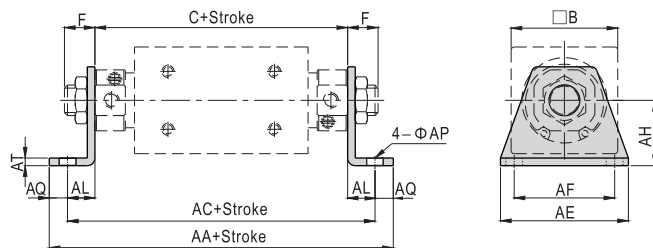
① The list accessories are for RMS cylinder. Accessories that are adaptable to other cylinder are not shown. Please refer to accessory list for selection and ordering information.

Accessory selection

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

Dimensions

RMS-LB, RMSP-LB

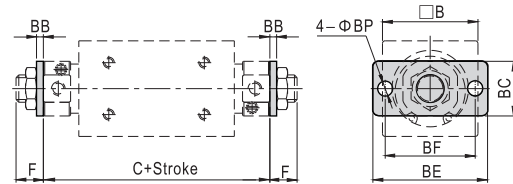


Bore size\Item	AA	AC	C	F
	RMS	RMSP	RMS	RMSP
16	113	122	101	110
20	158	167	142	151
25	167	-	151	-
32	184	193	170	179
40	216	-	196	-

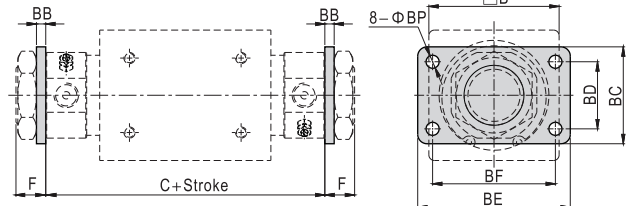
Bore size\Item	AE	AF	AH	AL	AP	AQ	AT	B
16	42	33	20	9	5.5	6	2.5	35
20	43	30	23	18	6.5	8	3	40
25	54	40	26	20	6.5	8	4	46
32	62	46	33	23	7	7	4	60
40	75	55	38	23	9	10	5	70

RMS-FA, RMSP-FA

Φ16~Φ32



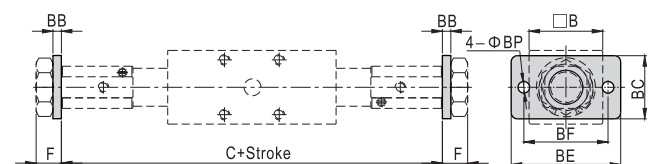
Φ40



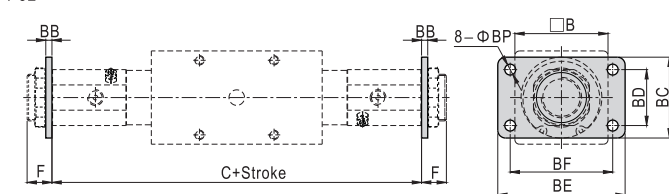
Bore size\Item	B	BB	BC	BD	BE	BF	BP	C	F
	RMS	RMSP	RMS	RMSP	RMS	RMSP	RMS	RMSP	RMS
16	35	2.5	20	-	42	33	5.5	83	92
20	40	4	34	-	75	60	7	106	115
25	46	4	40	-	75	60	7	111	-
32	60	4	40	-	75	60	7	124	133
40	70	5	52	36	82	66	7	150	-

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	12
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
	RMSP	F-PB12FA
	RMSF	F-MI12FA
20	RMS	F-RMS20LB
	RMSP	F-MF20FA
	RMSF	F-MA20FA
25	RMS	F-RMS25LB
	RMSP	F-MF25FA
	RMSF	F-MA20FA
32	RMS	F-RMS32LB
	RMSP	F-MF25FA
	RMSF	F-MA40FA
40	RMS	F-RMS40LB
	RMSP	F-MF40FA
	RMSF	-

