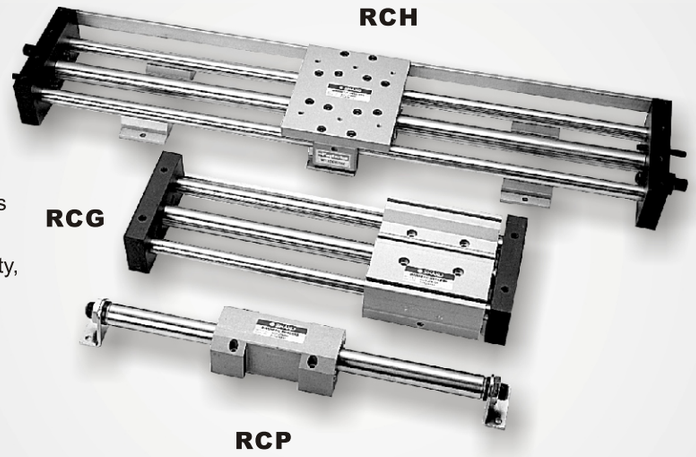
Features

* Utilize a special magnetic device to move cylinder body instead of piston rod acting, so the length of cylinder is half shorter than standard cylinder.
* The piston in magnetic device is sealed by stainless steel tube that is completely isolated from cylinder body, which ensures leakage free and long life.
* Moving magnetically provides stable quality, accuracy, and vibration free.
* Automation quality test ensures excellent performance.
* Simple installation and maintenance.



How to order

RCP | L | 32 | B | 50 | A1 | SF | 1

Rodless magnetic cylinder

RCP	Mono-block type (W/O guide rod)
RCG	Guide type
RCH	Mono-block with supporting type

Guide rod

B	Bush bearing
L	Linear bearing

Bore size

20	ϕ 20
25	ϕ 25
32	ϕ 32

Stroke

Shock absorber/ Number

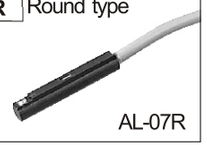
A1	1 pc
A2	2 pcs

Sensor type

Blank	W/O sensor
SS	Square type

AL-11R

SR	Round type



AL-07R

Number of sensor

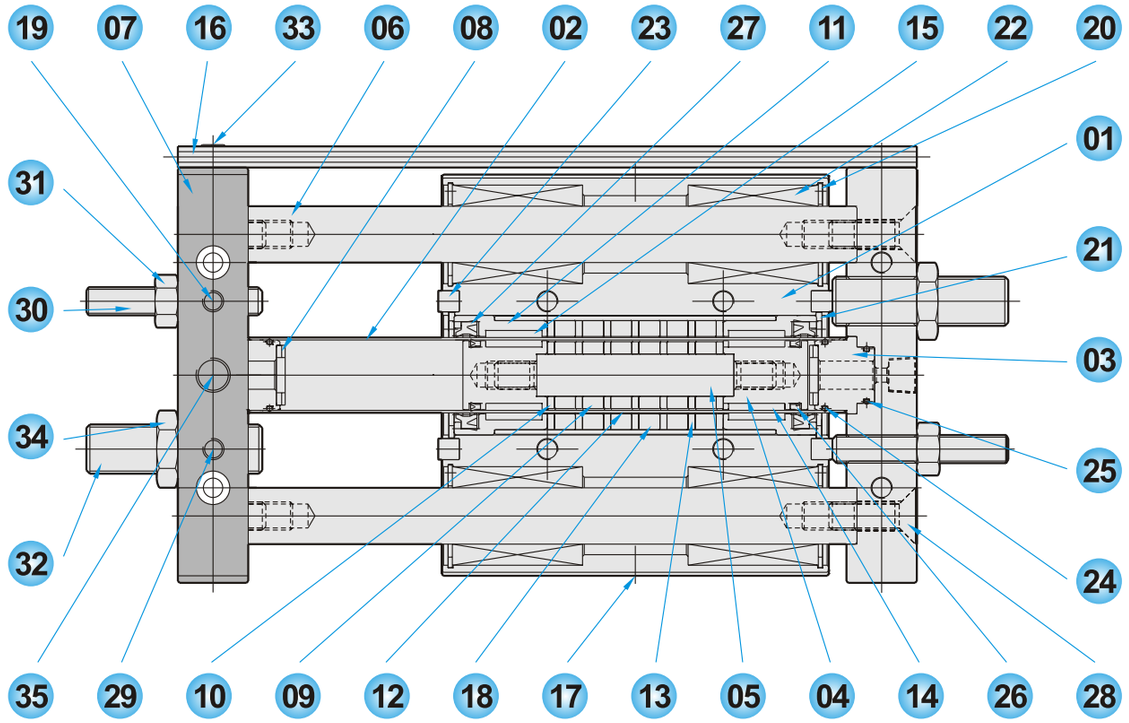
1	1 pc
2	2 pcs

* Please refer to page 6-13 "SHOCK ABSORBER" for specifications of shock absorber.

Specifications

Bore size	ϕ 20	ϕ 25	ϕ 32
Port size	1/8"		1/4"
Fluid	Compressed air		
Acting	Double acting		
Operating pressure range	2 ~ 7 kgf/cm^2		
Max operating pressure	10.5 kgf/cm^2		
Barrel material	Aluminum alloy		
Lubrication	Not required		
Lubricant on outside rod	Required		
Magnet	Built-in		
Ambient temperature	0℃ ~ 60℃		
Piston speed	500 mm/Sec		
Bush bearing	Applicable to low speed acting(Heavy loads)		
Linear bearing	Applicable to high speed acting(Light loads)		

Material of parts



No.	Description	Material	Qty.
1	Cylinder body	Aluminum alloy	1
2	Piston rod	Stainless steel	1
3	Top cover	Aluminum alloy	2
4	Piston	Aluminum alloy	2
5	Center rod	Stainless steel	1
6	Guide rod	Bearing steel	2
7	Front plate	Aluminum alloy	2
8	Bumper	NBR	2
9	Piston magnet	Ferrite magnet	6
10	Piston magnet holder	Ferrite	7
11	Body end cover	Aluminum alloy	2
12	Magnet tube	Aluminum alloy	1
13	Body magnet holder	Ferrite	7
14	Piston wear ring	Teflon	2
15	Wear ring cover	Teflon	2
16	Sensor mounting rail	Aluminum	1
17	Magnet	Ferrite magnet	1
18	Outside magnet	Ferrite magnet	6

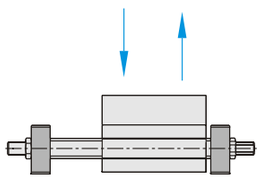
No.	Description	Material	Qty.
19	Press unit	Industrial plastic	4
20	Snap ring	Spring steel	4
21	Snap ring	Spring steel	2
22	Linear bearing	Bearing steel	4
23	Stopper	Bearing steel	4
24	O-ring	NBR	2
25	O-ring	NBR	2
26	Piston packing	NBR	2
27	Rod packing	NBR	2
28	Fixing screw	Carbon steel	4
29	Socket screw	Carbon steel	4
30	Adjustable screw	Carbon steel	2
31	Nut	Carbon steel	2
32	Adjustable screw	Carbon steel	2
33	Fixing screw	Carbon steel	2
34	Nut	Carbon steel	2
35	Bolt	Carbon steel	2

Theoretical force

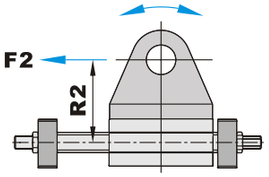
Bore size	Piston area cm²	Operating pressure kgf/cm²					
		2	3	4	5	6	7
ϕ20	3.14	6.28	9.42	12.56	15.7	18.84	21.98
ϕ25	4.91	9.82	14.73	19.64	24.55	29.46	34.37
ϕ32	8.04	16.08	24.12	32.16	40.2	48.24	56.28

Allowable loads

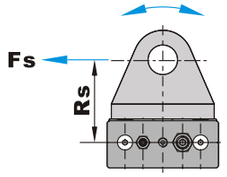
W2



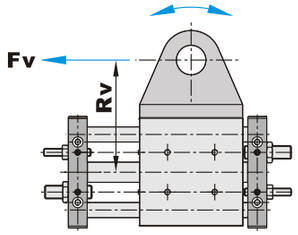
M2=F2XR2



Ms=FsXRs



Mv=FvXRv



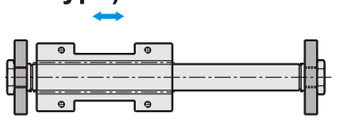
Bore size	Load W2(kgf-cm)	Load M2(kgf-cm)	Load Ms(kgf-cm)	Load Mv(kgf-cm)
ϕ20	13	55	11	55
ϕ25	20	100	20	100
ϕ32	32	160	32	160

Stroke table

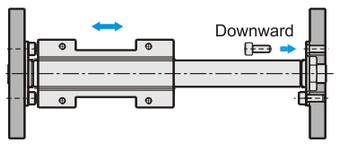
Bore size	Standard stroke(mm)
ϕ20	100, 200, 300, 400, 500, 600, 700, 750, 800, 900, 1000
ϕ25	
ϕ32	

Mounting example

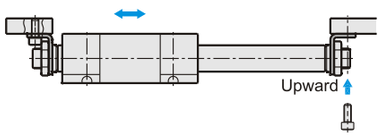
RCP(Mono-block type)

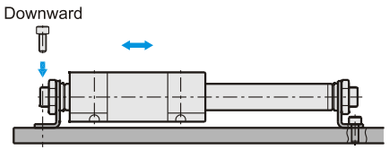


Flange mounting

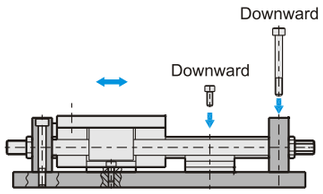


A type foot mounting

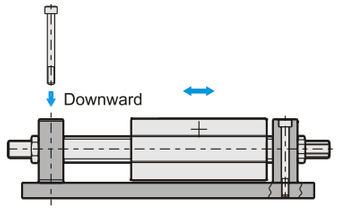




RCH(Mono-block with supporting type)

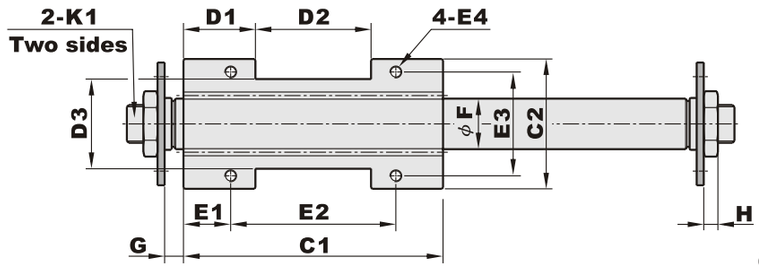


RCG(Guide type)



Dimensions

RCP series



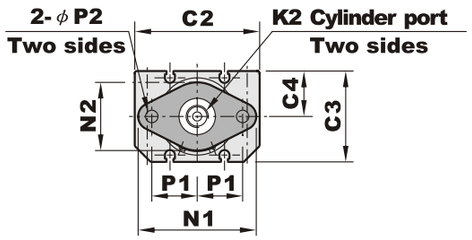
(Unit : mm)

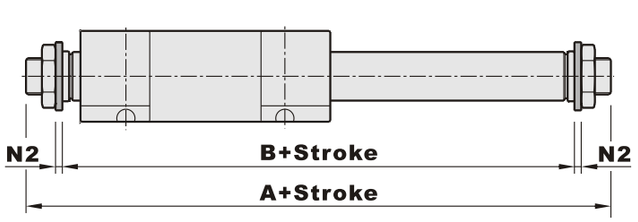
Bore size	A	B	C1	C2	C3	D1	D2	D3	E1	E2	E3	E4	F	G	H
ϕ20	156	126	110	55	40	30.5	49	38	20	70	44	M5xP0.8x15dp	21.4	8	8
ϕ25	166	126	110	65	50	30.5	49	48	20	70	54	M5xP0.8x15dp	26.4	8	8
ϕ32	186	146	120	80	60	29	62	60	20	80	66	M6xP1.0x20dp	33.6	13	8

Bore size	K1	K2	N1	N2	N3	P1	P2	Q	R	S1	S2	T1	T2	T3
ϕ20	M16xP1.5xL16	RS 1/8	52	30	3	20	5.5	154	45	45	25	16	14	6.5
ϕ25	M22xP1.5xL20	RS 1/8	66	40	3	25	6.5	160	55	55	30	20	17	9
ϕ32	M22xP1.5xL20	RS 1/8	66	40	3	25	6.5	180	65	65	35	25	17	9

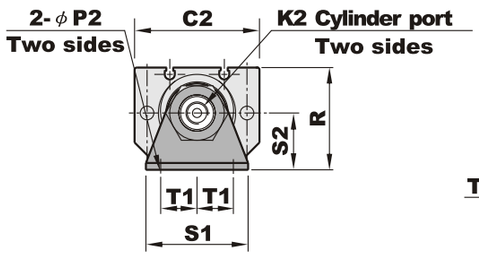
Mounting type

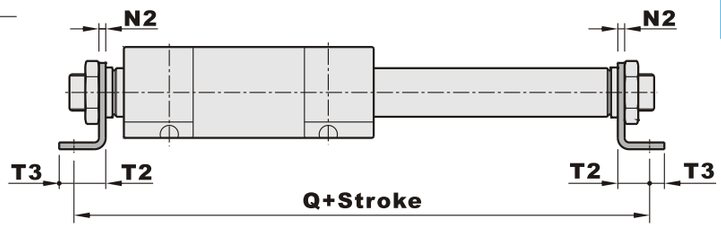
FA Flange mounting



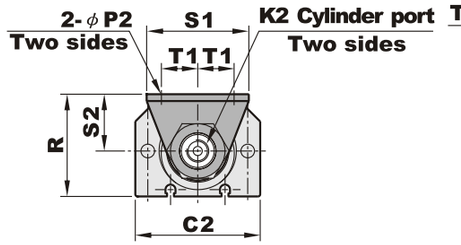


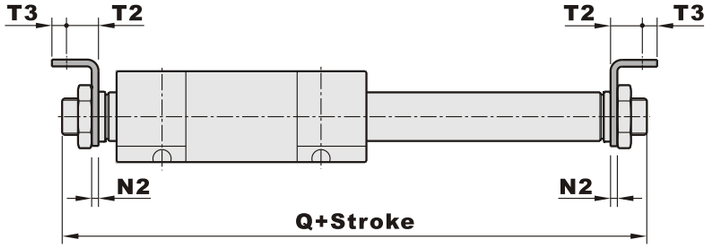
L type foot mounting(Foot downward)





L type foot mounting(Foot upward)

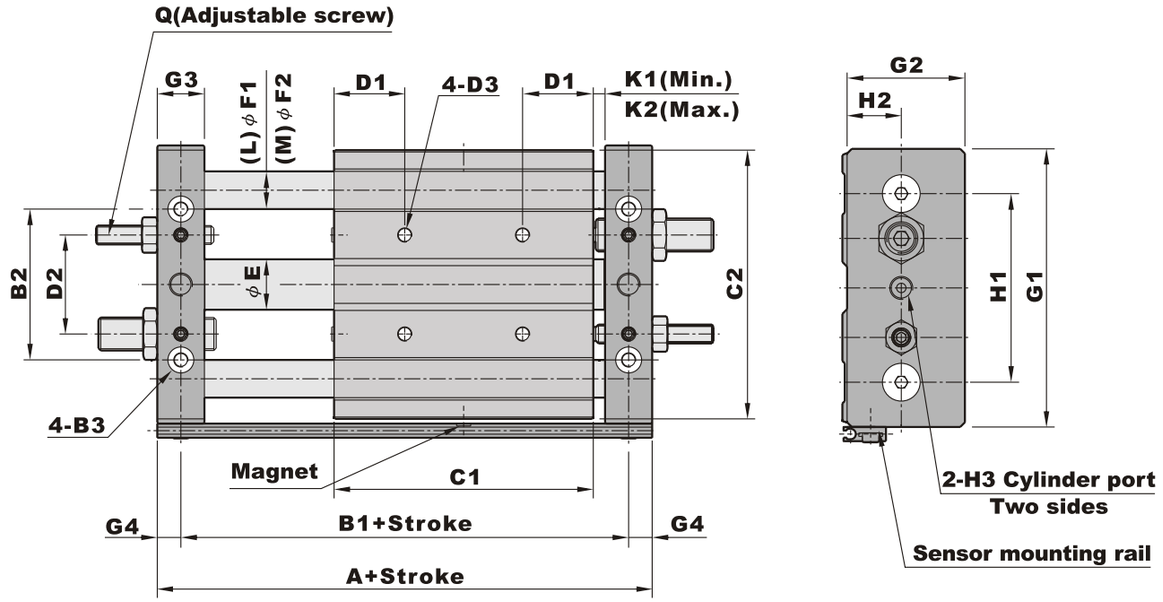


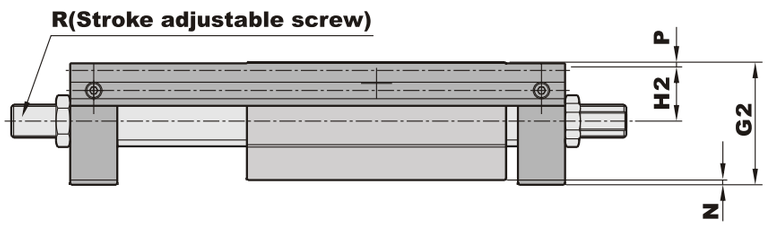


PNEUMATIC CYLINDER

Dimensions

RCG series





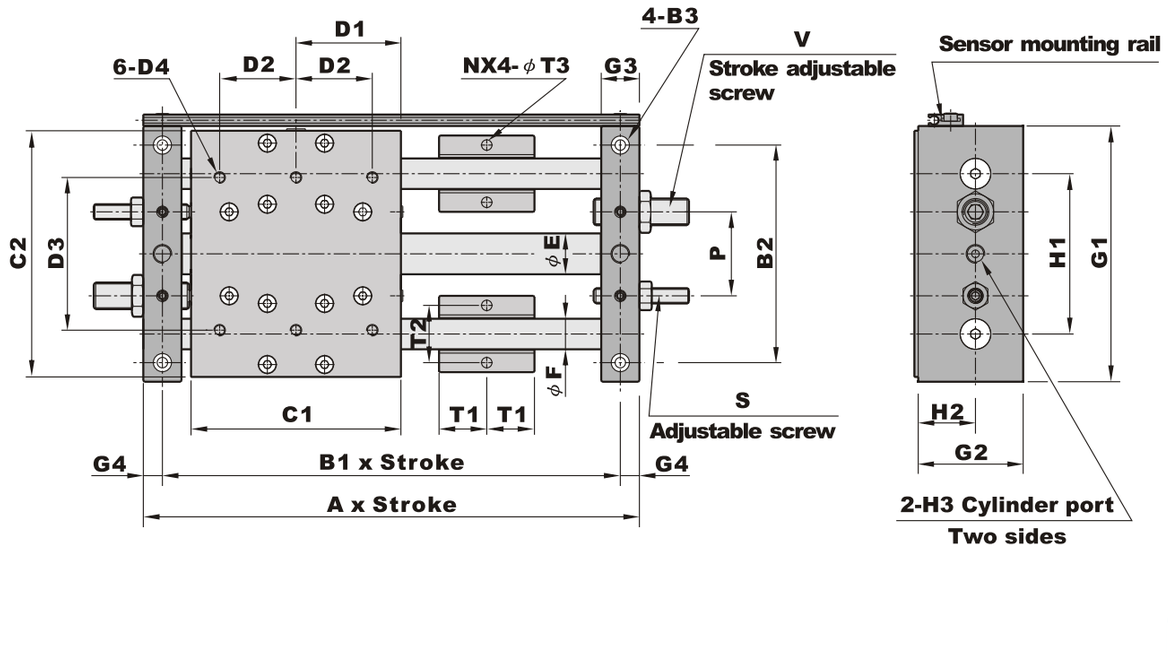
(Unit : mm)

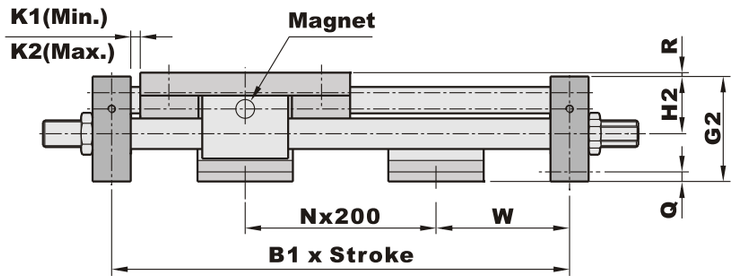
Bore size	A	B1	B2	B3	C1	C2	D1	D2	D3	F1	F2	G1	G2
ϕ**20**	126	140	64	ϕ5.2-ϕ9.5x5.5dp	110	114	30	42	M6xP1.0x15dp	16	20	118	50
ϕ**25**	126	140	74	ϕ5.2-ϕ9.5x5.5dp	110	124	30	52	M6xP1.0x15dp	16	20	128	54
ϕ**32**	146	165	94	ϕ6.8-ϕ11x6.5dp	120	150	35	66	M8xP1.25x20dp	20	25	154	62

Bore size	G3	G4	H1	H2	H3	K1	K2	N	P	Q	R
ϕ**20**	20	10	80	23	RS 1/8	5	25	2	2	M8xP1.25xL50	M14xP1.5xL50
ϕ**25**	20	10	90	25	RS 1/8	5	25	2	2	M8xP1.25xL50	M14xP1.5xL50
ϕ**32**	25	12.5	112	29	RS 1/4	10	25	2	2	M14xP1.5xL50	M20xP1.5xL50

Dimensions

RCH series





Stroke	500	1000	1500
N	2	5	7
W	120	70	120

(Unit : mm)

Bore size	A	B1	B2	B3	C1	C2	D1	D2	D3	D4	E	F	G1	G2	G3
ϕ**20**	160	140	114	ϕ5.2-ϕ9.5x5.5dp	110	129	55	40	80	M5xP0.8x15dp	21.4	16	134	55	20
ϕ**25**	160	140	124	ϕ5.2-ϕ9.5x5.5dp	110	139	55	40	100	M5xP0.8x15dp	26.4	16	144	64	20

Bore size	G4	H1	H2	H3	K1	K2	P	Q	R	S	T1	T2	T3	V
ϕ**20**	10	84	30	RS 1/8	5	25	44	5	2	M8xP1.25xL50	25	30	5.5	M14xP1.5xL50
ϕ**25**	10	94	35	RS 1/8	5	25	54	5	2	M8xP1.25xL50	25	30	5.5	M14xP1.5xL50

PNEUMATIC CYLINDER