

■ Features

1. Integrate the guide rod with ISO15552 (Ø32~Ø100) and ISO6432 (Ø20, Ø25) cylinders for action.
2. Adjustable cushion for ISO6432 (Ø20, Ø25) cylinder is optional for more stable movement.
3. Cylinder body connected with guide rod by floating joint, without friction in operation.
4. Non rotating guide rod with high accuracy.
5. The linear bearing is applicable to high speed acting and light loads.
6. The bush bearing is applicable to low speed acting and heavy loads.
7. Sensor switch and shock absorber are optional accessories.



■ How to order

GC	M	20	B50	F	SF	D	1
Guide cylinder	Guide rod	Bore size	Stroke	Shock absorber	Sensor	Type	Number of sensor
	M: Bush bearing L :Linear bearing	20:Ø20 25:Ø25 32:Ø32 40:Ø40 50:Ø50 63:Ø63 80:Ø80 100 :Ø100		Blank :W/O shock absorber F :Assembly in front B:Assembly in rear FB :Assembly in front & rear R:End plate (for Ø20, Ø25)	Blank :W/O sensor SF:LED in top (Ø20, Ø25)  AL-20 ST:LED on top (Ø20, Ø25)  AL-21 SM:Round type (Ø32 ~ Ø100)  AL-76	Blank :Reed switch D:NPN E:PNP	1 pc 2 pcs

*Please refer to page 6-21 "SHOCK ABSORBER" for specifications of shock absorber.

*Body length will be increased with 25mm for assembling cushion in rear for Ø32~Ø63.

*Body length will be increased with 50mm for assembling cushion in rear for Ø80~Ø100.

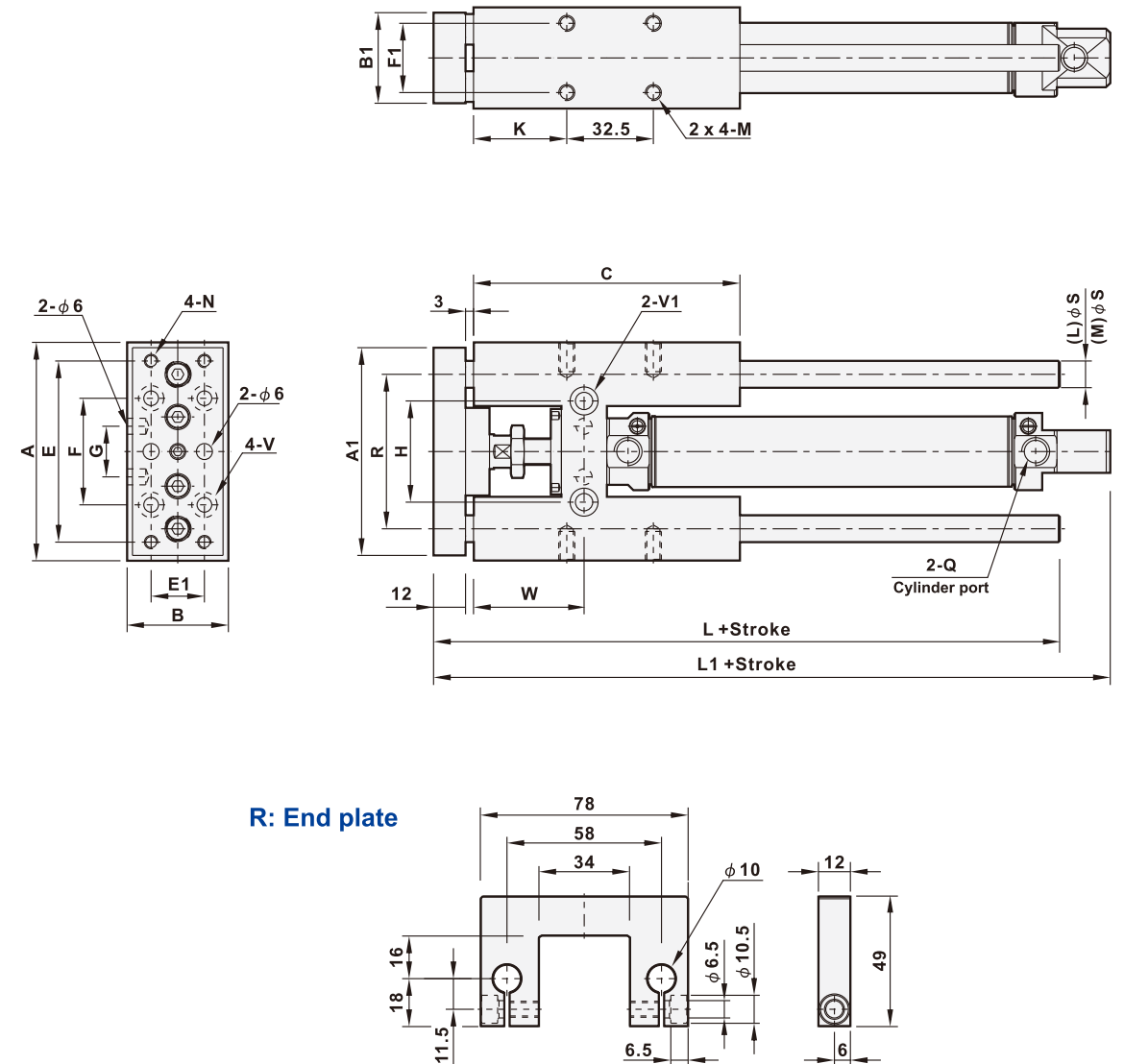
*Sensor please refer to P3-189, P3-190, P3-195

■ Specifications

Bore size	Ø20	Ø25	Ø32	Ø40	Ø50	Ø63	Ø80	Ø100
Port size	1/8"			1/4"		3/8"		1/2"
Fluid	Compressed air							
Acting	Double acting							
Operating pressure range	2 ~ 9 kgf/cm²							
Max operating pressure	10.5 kgf/cm²							
Lubrication	Not required							
Barrel material	SUS 304			Aluminum alloy				
Magnet	Built-in							
Ambient temperature	0°C ~ 60°C							
Piston speed mm/Sec	100 ~ 500mm/Sec.							

■ Dimensions

Ø20, Ø25



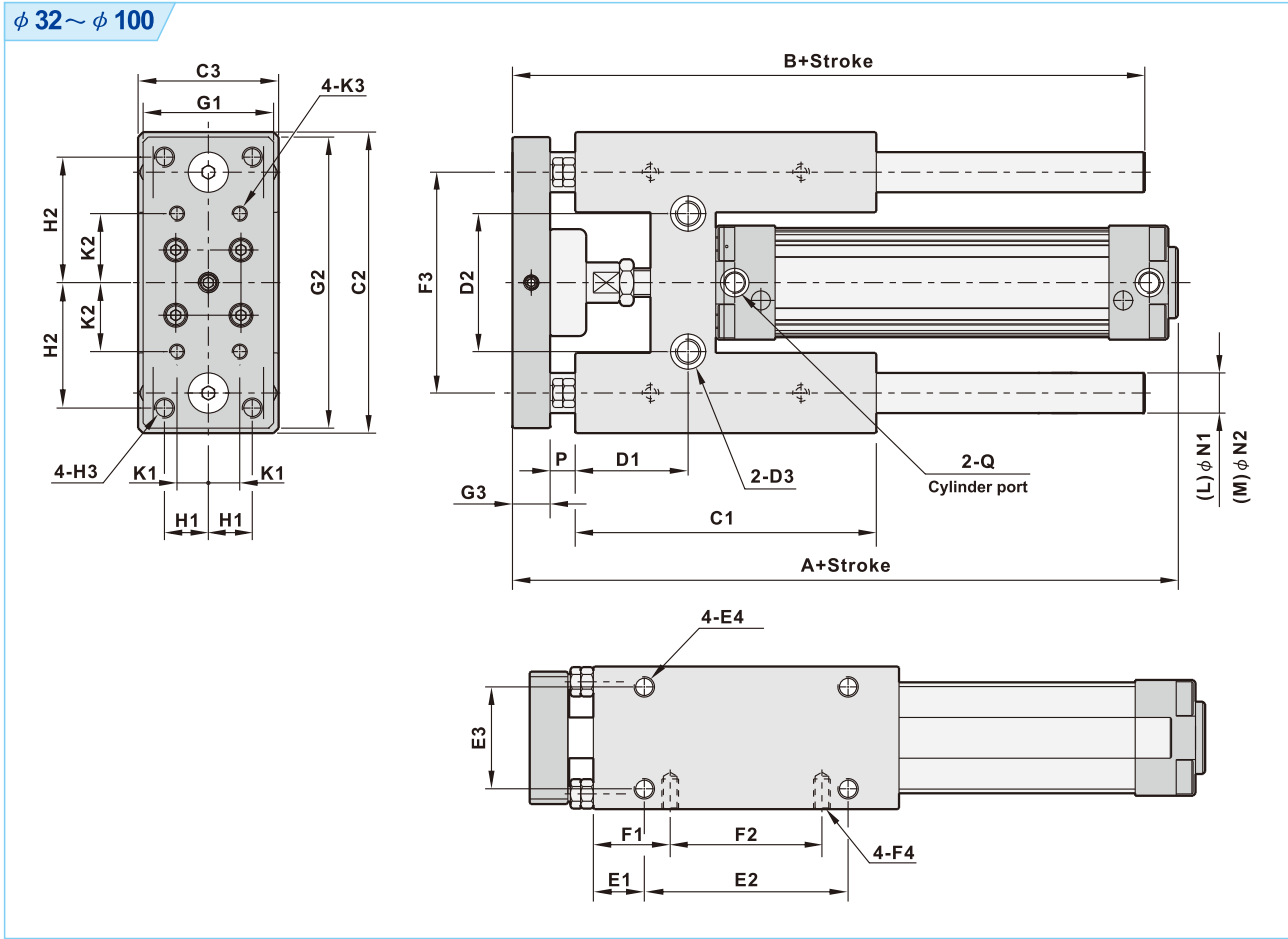
R: End plate

Bore size	A	A1	B	B1	C	E	E1	F	F1	G	H	K	L	L1
Ø20	82	78	38	34	100	68	20	40	26	19	38	35	135	150
Ø25	82	78	38	34	100	68	20	40	26	19	38	35	135	155

Bore size	M	N	R	S	V	V1	W
Ø20	M6, Depth 11	M5	58	10	Ø5.5, Ø9.5 Depth 5.4	Ø6.5, Ø10.5 Depth 6.5	41.5
Ø25	M6, Depth 11	M5	58	10	Ø5.5, Ø9.5 Depth 5.4	Ø6.5, Ø10.5 Depth 6.5	41.5

■ Dimensions

φ 32～φ 100



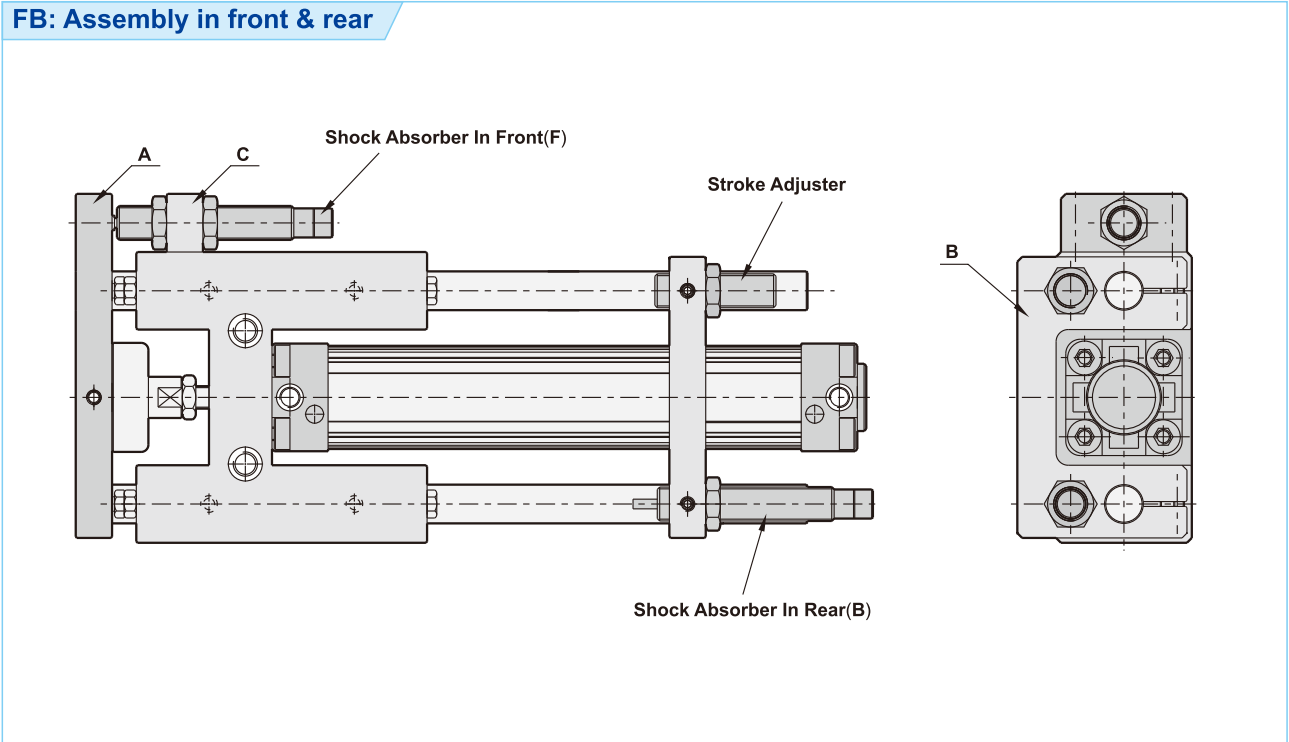
(Unit: mm)

Bore size	A	B	C1	C2	C3	D1	D2	D3	E1	E2	E3	E4	F1	F2	F3
φ 32	179	152	120	120	56	45	55	φ 8.5- φ 14x8.5Depth	20	80	40	M6xP1.0x15Depth	30	60	88
φ 40	190	152	120	120	56	45	55	φ 8.5- φ 14x6Depth	20	80	40	M6xP1.0x15Depth	30	60	88
φ 50	220	200	160	160	78	65	80	φ 10.5- φ 17.5x10.5Depth	30	100	50	M8xP1.25x24Depth	40	80	120
φ 63	236	200	160	160	78	65	80	φ 10.5- φ 17.5x7Depth	30	100	50	M8xP1.25x24Depth	40	80	120
φ 80	280	270	220	220	115	90	120	φ 12.5- φ 20x13Depth	40	140	80	M10xP1.5x20Depth	60	100	170
φ 100	290	270	220	220	115	90	120	φ 12.5- φ 20x12Depth	40	140	80	M10xP1.5x20Depth	60	100	170

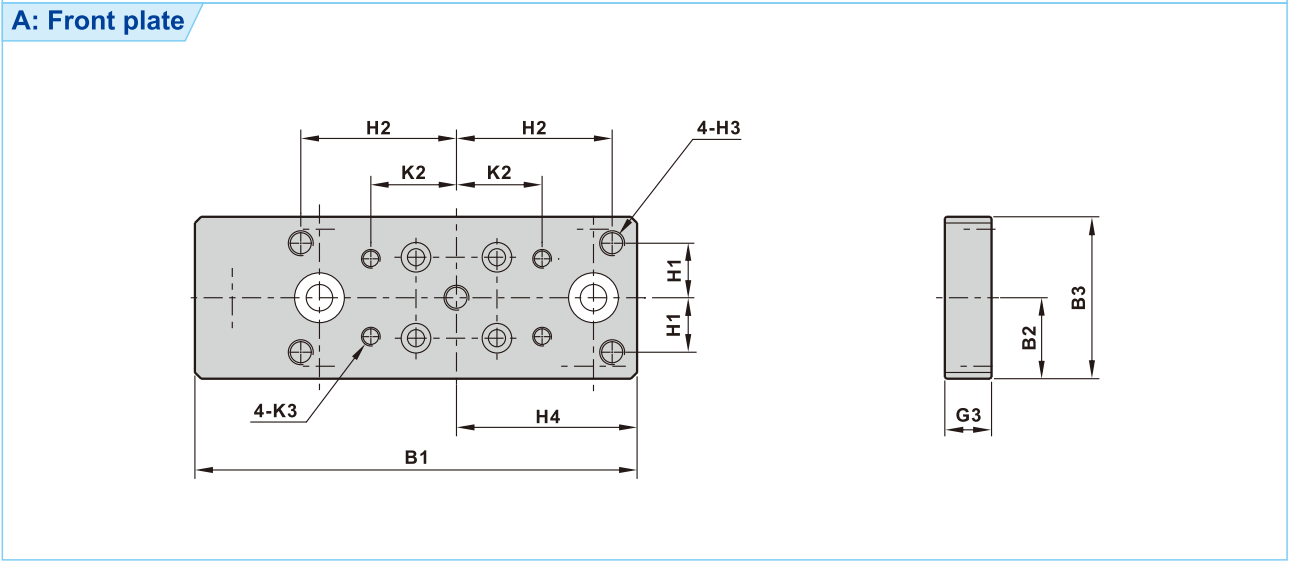
Bore size	F4	G1	G2	G3	H1	H2	H3	K1	K2	K3	N1	N2	P	Q
φ 32	M6xP1.0x10Depth	52	116	15	17.5	50	M8xP1.25	12.5	27.5	M6xP1.0	16	20	10	G 1/8
φ 40	M6xP1.0x10Depth	52	116	15	17.5	50	M8xP1.25	12.5	27.5	M6xP1.0	16	20	10	G 1/4
φ 50	M8xP1.25x18.5Depth	74	156	20	25	65	M10xP1.5	20	40	M8xP1.25	20	25	10	G 1/4
φ 63	M8xP1.25x18.5Depth	74	156	20	25	65	M10xP1.5	20	40	M8xP1.25	20	25	10	G 3/8
φ 80	M10xP1.5x20Depth	110	216	25	40	90	M12xP1.75	30	55	M10xP1.5	25	30	10	G 3/8
φ 100	M10xP1.5x20Depth	110	216	25	40	90	M12xP1.75	30	55	M10xP1.5	25	30	10	G 1/2

■ Dimensions

FB: Assembly in front & rear



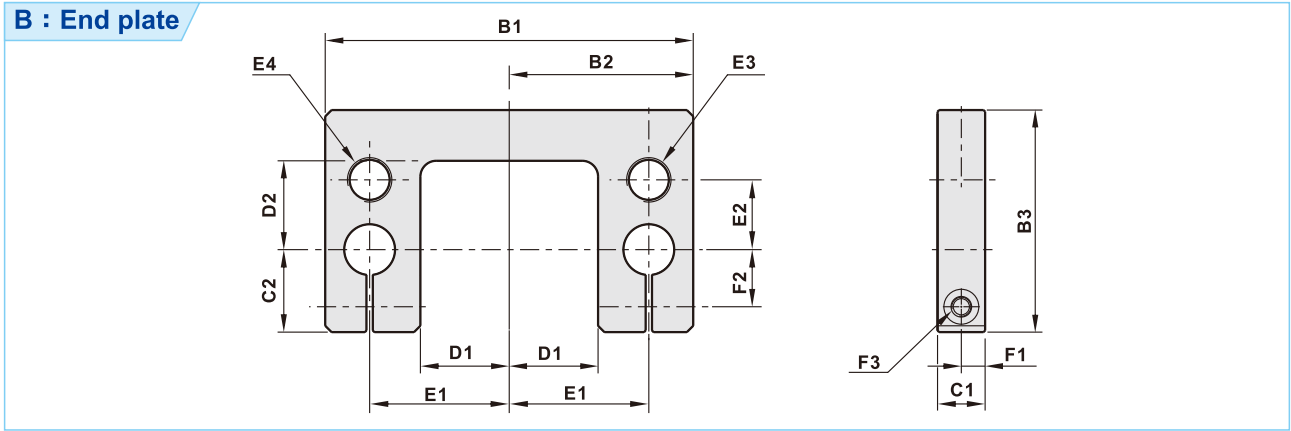
A: Front plate



(Unit: mm)

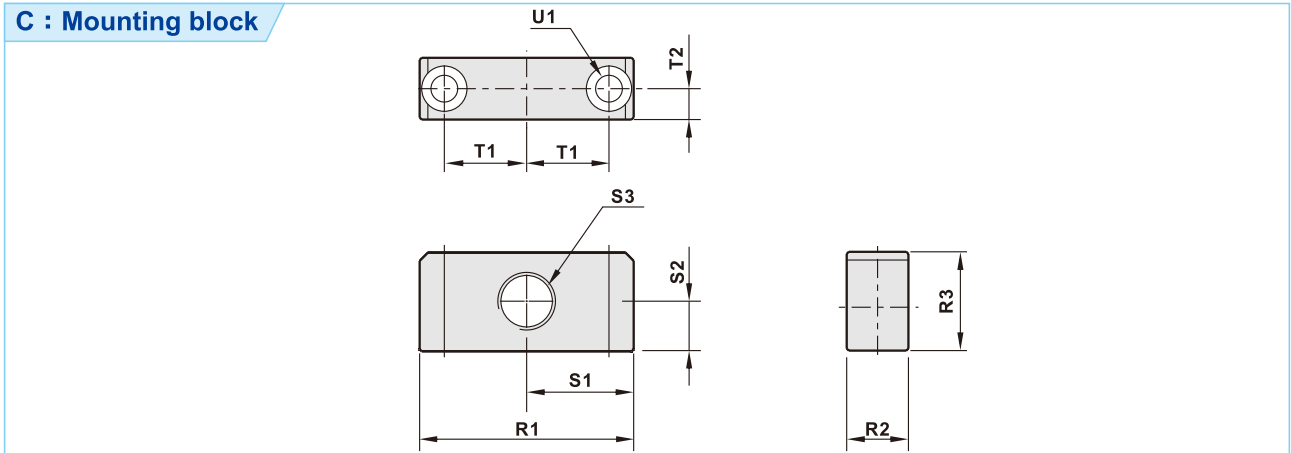
Bore size	B1	B2	B3	G3	H1	H2	H3	H4	K2	K3
φ 32	142	26	52	15	17.5	50	M8xP1.25	58	27.5	M6xP1.0
φ 40	142	26	52	15	17.5	50	M8xP1.25	58	27.5	M6xP1.0
φ 50	190	37	74	20	25	65	M10xP1.5	78	40	M8xP1.25
φ 63	190	37	74	20	25	65	M10xP1.5	78	40	M8xP1.25
φ 80	258	55	110	25	40	90	M12xP1.75	108	55	M10xP1.5
φ 100	258	55	110	25	40	90	M12xP1.75	108	55	M10xP1.5

■ Dimensions



(Unit: mm)

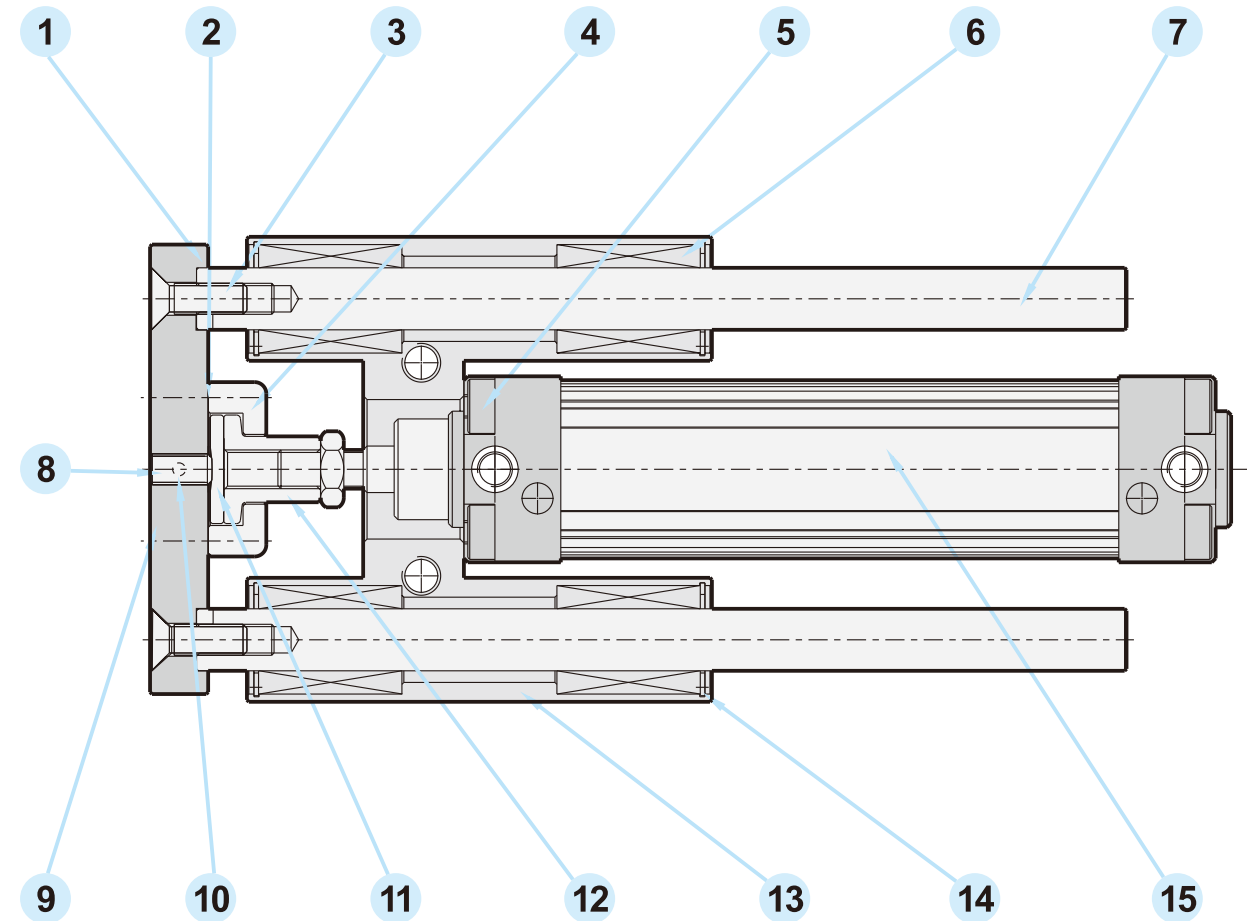
Bore size	I1	I2	I3	J1	J2	L1	L2	M1	M2	M3	M4	O1	O2	O3
φ 32	116	58	70	15	26	32	28	44	22	M14xP1.5	M14xP1.5	7.5	18	φ 6.5- φ 9.5x6.5 Depth
φ 40	116	58	70	15	26	32	28	44	22	M14xP1.5	M14xP1.5	7.5	18	φ 6.5- φ 9.5x6.5 Depth
φ 50	158	78	97	20	37	43	39	60	32	M14xP1.5	M20xP1.5	10	25	φ 8.5- φ 14x8.5 Depth
φ 63	158	78	97	20	37	43	39	60	32	M14xP1.5	M20xP1.5	10	25	φ 8.5- φ 14x8.5 Depth
φ 80	216	108	140	25	55	57.5	57.5	85	48	M14xP1.5	M25xP1.5	12.5	40	φ 10.5- φ 17x11 Depth
φ 100	216	108	140	25	55	57.5	57.5	85	48	M14xP1.5	M25xP1.5	12.5	40	φ 10.5- φ 17x11 Depth



(Unit: mm)

Bore size	R1	R2	R3	S1	S2	S3	T1	T2	U1	Shock absorber code
φ 32	52	15	24	26	12	M14xP1.5	20	7.5	φ 6.5- φ 9.5x6.5 Depth	DA1415
φ 40	52	15	24	26	12	M14xP1.5	20	7.5	φ 6.5- φ 9.5x6.5 Depth	DA1415
φ 50	74	20	32	37	16	M20xP1.5	25	10	φ 8.5- φ 14x8.5 Depth	DA2020
φ 63	74	20	32	37	16	M20xP1.5	25	10	φ 8.5- φ 14x8.5 Depth	DA2020
φ 80	110	25	40	55	20	M25xP1.5	40	12.5	φ 10.5- φ 17x11 Depth	DA2525
φ 100	110	25	40	55	20	M25xP1.5	40	12.5	φ 10.5- φ 17x11 Depth	DA2525

■ Material of parts



No.	Description	Material	Qty.	No.	Description	Material	Qty.
1	Stopper	Carbon steel	4	8	Socket set screws	Carbon steel	1
2	Fixing screw	Carbon steel	4	9	Plate	Aluminum alloy	1
3	Fixing screw	Carbon steel	2	10	Socket set screws	Carbon steel	1
4	Mounting plate	Carbon steel	1	11	Washer	Carbon steel	1
5	Fixing screw	Carbon steel	4	12	Adaptor	Carbon steel	1
6	Bushing	Bush (L:Linear bearing)	4	13	Guide body	Aluminum alloy	1
7	Guide rod	Carbon steel (L: Bearing steel)	2	14	Snap ring	Carbon steel	4
				15	ISO6431 standard cylinder	Aluminum alloy	1

■ Theoretical force

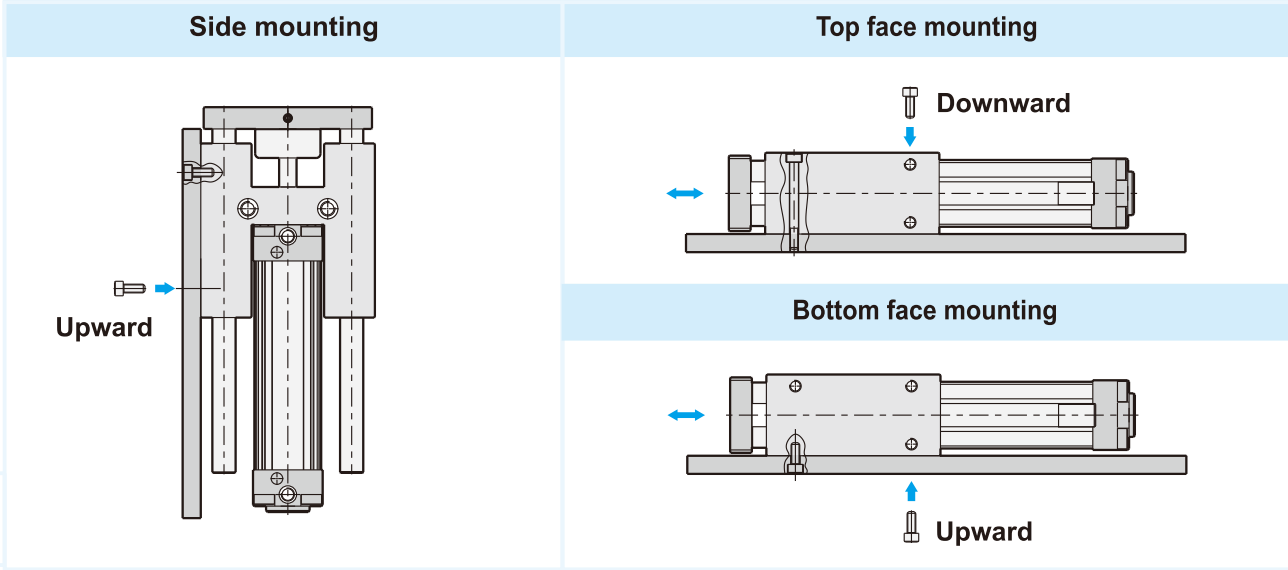
Bore size	Rod diameter	Acting	Piston area cm ²	Operating pressure kgf/cm ²					
				2	3	4	5	6	7
φ 20	φ 8	Push	3.14	6.28	9.42	12.56	15.7	18.84	21.98
		Pull	2.64	5.28	7.92	10.56	13.2	15.84	18.48
φ 25	φ 10	Push	4.90	9.8	14.7	14.7	24.5	29.4	34.3
		Pull	4.12	8.24	12.36	12.36	20.6	24.72	28.84
φ 32	φ 12	Push	8.04	16.08	24.12	32.16	40.2	48.24	56.28
		Pull	6.91	13.82	20.73	27.64	34.56	41.46	48.37
φ 40	φ 16	Push	12.57	25.14	37.71	50.28	62.85	75.42	87.99
		Pull	10.56	21.12	31.68	42.24	52.8	63.36	73.92
φ 50	φ 20	Push	19.63	39.26	58.89	78.52	98.15	117.78	137.41
		Pull	16.49	32.98	49.47	65.96	82.45	98.94	115.43
φ 63	φ 20	Push	31.17	62.34	93.51	124.68	155.85	187.02	218.19
		Pull	28.03	56.06	84.09	112.12	140.15	168.18	196.21
φ 80	φ 25	Push	50.27	100.54	150.81	201.08	251.35	301.62	351.89
		Pull	45.36	90.72	136.08	181.44	226.8	272.16	317.52
φ 100	φ 25	Push	78.54	157.08	235.62	314.16	392.7	441.78	549.78
		Pull	73.63	147.26	220.89	294.52	368.15	417.24	515.41

■ Stroke table

Bore size	Acting	Standard stroke(mm)	Max. Standard stroke(mm)
φ 20 ~ φ 25	Double acting	5 ~ 500	900
φ 32 ~ φ 100		25 ~ 1000	1800

Note: Please contact our sales for non-standard stroke.

■ Mounting example



Memo...

