

How to Order?

Series No	Type No	Bore X	Stroke	Magnet No	Thread type
SG	L: Linear bearing M: slide bearing	12 16 20 ...	25 50 75 ...	S: with magnet	Blank: G P: PT T: NPT

Order Example:  
SG series, linear bearing, bore 16mm, stroke 30mm, EPR code is: SGL16X30-S

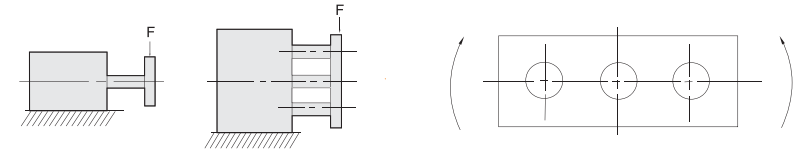
Specifications

Bore(mm)	12	16	20	25	32	40	50	63
Acting type	Double acting							
Working medium	Clean air (40µm filtration)							
Working pressure (MPa)	0.1~1.0							
Guaranteed pressure (MPa)	1.5							
Working temperature (°C)	-20~80(Dry air)							
Piston speed (mm/s)	30~500							
Cushion	Rubber cushion							
Tolerance of stroke (mm)	± 1.5 0							
Bearing	Slide bearing / Linear bearing							
No-rotating precision	Slide bearing	± 0.08°		± 0.07°		± 0.06°		± 0.05°
	Linear bearing	± 0.10°		± 0.09°		± 0.08°		± 0.06°
Port Size	M5x0.8			G 1/8			G 1/4	

Bore (mm)	Standard stroke (mm)														Max. stroke (mm)			
12	10	20	25	30	40	50	60	70	75	80	90	100	125	150	150			
16	10	20	25	30	40	50	60	70	75	80	90	100	125	150	175	200	200	
20/25	20	25	30	40	50	60	70	75	80	90	100	125	150	175	200	225	250	250
32-63	25	30	40	50	60	70	75	80	90	100	125	150	175	200	225	250	250	

Note: The dimensions of non-std stroke cylinder has the same dimensions as the next longer stroke std. stroke cylinder.  
e.g. 27mm stroke cylinder has the same dimensions of 30 std. stroke cylinder.

Permit Load and Torque

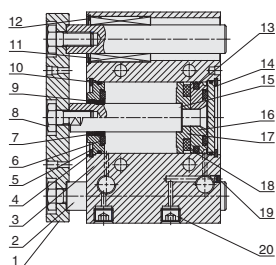


Torque: T(N.m)

Bore(mm)	Model	Max Side Load F(N)											
		Stroke(mm)											
		10	20	25	30	40	50	75	100	125	150	175	200
12	SGM	24	19	-	17	14	13	26	22	-	-	-	-
	SGL	37	27	-	22	35	30	23	18	-	-	-	-
16	SGM	38	31	-	27	23	21	37	32	-	-	-	-
	SGL	54	40	-	32	54	47	35	28	-	-	-	-
20	SGM	-	49	-	43	38	35	87	75	66	59	54	49
	SGL	-	58	-	48	101	90	70	58	62	54	48	43
25	SGM	-	69	-	60	54	49	116	100	88	79	71	65
	SGL	-	82	-	68	132	118	93	77	80	70	62	55
32	SGM	-	-	203	-	-	164	182	159	142	127	116	106
	SGL	-	-	191	-	-	157	164	144	203	186	171	158
40	SGM	-	-	203	-	-	164	182	159	142	127	116	106
	SGL	-	-	190	-	-	157	163	144	203	185	171	158
50	SGM	-	-	296	-	-	245	273	241	216	195	179	164
	SGL	-	-	208	-	-	173	223	199	264	242	224	207
63	SGM	-	-	296	-	-	245	273	241	216	195	179	164
	SGL	-	-	206	-	-	171	221	196	262	240	221	205

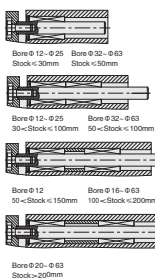
Bore(mm)	Model	Max Torque F(N)											
		Stroke(mm)											
		10	20	25	30	40	50	75	100	125	150	175	200
12	SGM	0.39	0.32	-	0.27	0.24	0.21	0.43	0.36	-	-	-	-
	SGL	0.61	0.45	-	0.35	0.58	0.50	0.37	0.29	-	-	-	-
16	SGM	0.69	0.58	-	0.49	0.43	0.38	0.69	0.58	-	-	-	-
	SGL	0.99	0.74	-	0.59	0.99	0.86	0.65	0.52	-	-	-	-
20	SGM	-	1.05	-	0.93	0.83	0.75	1.88	1.63	1.44	1.28	1.16	1.06
	SGL	-	1.26	-	1.03	2.17	1.94	1.52	1.25	1.34	1.17	1.03	0.93
25	SGM	-	1.76	-	1.55	1.38	1.25	2.96	2.57	2.26	2.02	1.83	1.67
	SGL	-	2.11	-	1.75	3.37	3.02	2.38	1.97	2.05	1.78	1.58	1.41
32	SGM	-	-	6.35	-	-	5.13	5.69	4.97	4.42	3.98	3.61	3.31
	SGL	-	-	5.95	-	-	4.89	5.11	4.51	6.34	5.79	5.33	4.93
40	SGM	-	-	7	-	-	5.66	2.27	5.48	4.87	4.38	3.98	3.65
	SGL	-	-	6.55	-	-	5.39	5.62	4.96	6.98	6.38	5.87	5.43
50	SGM	-	-	13	-	-	10.8	12	10.6	9.5	8.6	7.86	7.24
	SGL	-	-	9.17	-	-	7.62	9.83	8.74	11.6	10.7	9.83	9.12
63	SGM	-	-	14.7	-	-	12.1	13.5	11.9	10.7	9.69	8.86	8.16
	SGL	-	-	10.2	-	-	8.48	11	9.74	13	11.9	11	10.2

Internal structure

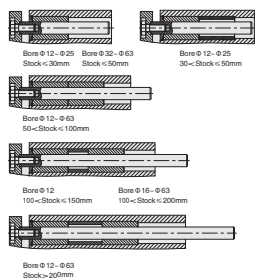


NO.	Part name	Material
1	Fixing plate	Aluminum alloy
2	Leader	Steel
3	Barrel	Aluminum alloy
4	C type retainer ring	Spring steel
5	Head cover	Aluminum alloy
6	Anti-bump cushion	NBR/TPU
7	Piston rod seal	TPU
8	Screw	Stainless steel
9	Self lubricating bearing	Bronze powder
10	O-ring	NBR
11	Bearing	Brass
12	C type retainer ring	Spring steel
13	Piston seal	NBR
14	Rear cover	Aluminum alloy
15	Piston rod	S45C hard chrome carbon steel
16	Piston	Aluminum alloy
17	Magnet base	Aluminum alloy
18	Magnet	Plastic
19	Nut	Carbon steel
20	Hex fix screw	Carbon steel
21	Spacer	Aluminum alloy

SGL Series

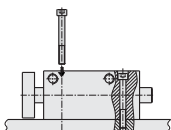


SGM Series



How to mount

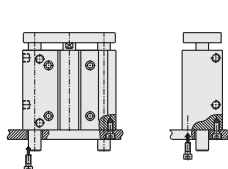
Fixation of screw on top surface



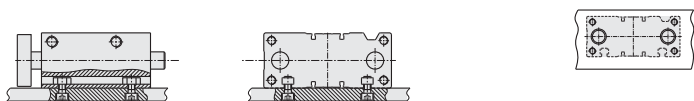
Fixation of screw at bottom surface



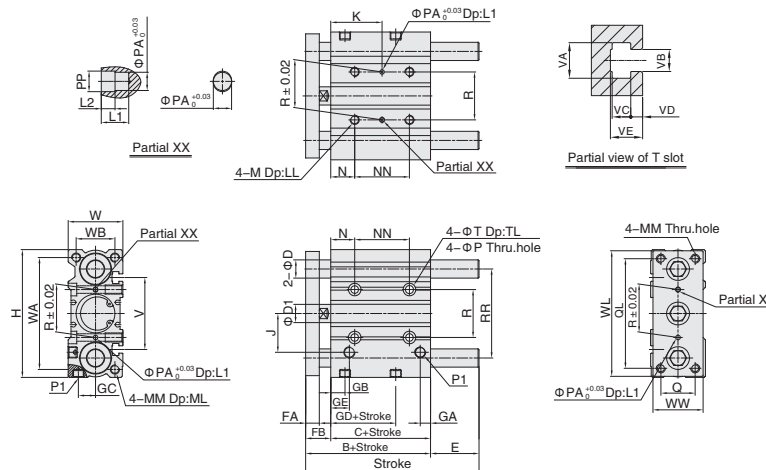
Fixation of screw at back surface



Fixation of T slot at bottom



Main Dimensions



(mm)

Bore/Sign	E(SGL)				E(SGM)				NN				K			
	$\leq$ 30	31-100	101-200	$>$ 200	$\leq$ 50	51-100	101-200	$>$ 200	$\leq$ 30	31-100	101-200	$>$ 200	$\leq$ 30	31-100	101-200	$>$ 200
12	0	13	43	-	0	13	43	-	20	40	110	-	15	25	60	-
16	0	19	49	-	0	19	49	-	24	44	110	-	17	27	60	-
20	0	27	51	69	0	27	51	69	24	44	120	200	29	39	77	117
25	0	28.5	51	68.5	0	28.5	51	68.5	24	44	120	200	29	39	77	117
32	5.5	42.5	58.5	80.5	5.5	42.5	58.5	80.5	24	48	124	200	33	45	83	121
40	0	36	52	74	0	36	52	74	24	48	124	200	34	46	84	122
50	4	46	62	89	4	46	62	89	24	48	124	200	36	48	86	124
63	0	41	57	84	0	41	57	84	28	52	128	200	38	50	88	124

Bore/Sign	B	C	FA	FB	P1	GA	GB	GC	GD	GE	R	RR	N	P	PA	PP	T	TL	M	LL	D1
12	42	29	8	13	M5X0.8	7.5	11	8	13	11	23	41	5	4.2	3	3.5	8	4.5	M5X0.8	10	6
16	46	33	8	13	M5X0.8	8	11	10	15	11	24	46	5	4.2	3	3.5	8	4.5	M5X0.8	10	8
20	53	37	10	16	1/8"	9	10.5	10.5	12.5	10.5	28	54	17	5.2	3	3.5	9.5	5.5	M6X1.0	12	10
25	53.5	37.5	10	16	1/8"	9	11.5	13.5	12.5	11.5	34	64	17	5.2	4	4.5	9.5	5.5	M6X1.0	12	12
32	59.5	37.5	12	22	1/8"	9	12.5	15	7	12.5	42	78	21	6.9	4	4.5	11	7.5	M8X1.25	16	16
40	66	44	12	22	1/8"	10	14	18	13	14	50	86	22	6.9	4	4.5	11	7.5	M8X1.25	16	16
50	72	44	16	28	1/4"	11	12	21.5	9	14	66	110	24	8.7	5	6	14	9	M10X1.5	20	20
63	77	49	16	28	1/4"	13.5	16.5	28	14	16.5	80	124	24	8.7	5	6	14	9	M10X1.5	20	20

Bore/Sign	D(SGL)	D(SGM)	J	W	WA	WB	WL	WW	H	Q	QL	MM	ML	L1	L2	V	VA	VB	VC	VD	VE
12	6	8	18	26	50	18	56	22	58	14	48	M4X0.7	10	6	3	37	7.4	4.4	3.7	2	6.2
16	8	10	19	30	56	22	62	25	64	16	54	M5X0.8	12	6	3	38	7.4	4.4	3.7	2.5	6.7
20	10	12	25	36	72	24	81	30	83	18	70	M5X0.8	13	6	3	44	8.4	5.4	4.5	2.8	7.8
25	12	16	28.5	42	82	30	91	38	93	26	78	M6X1.0	15	6	3	50	8.4	5.4	4.5	3	8.2
32	16	20	34	48	98	34	110	44	112	30	96	M8X1.25	20	6	3	63	10.5	6.5	5.5	3.5	9.5
40	16	20	38	54	106	40	118	44	120	30	104	M8X1.25	20	6	3	72	10.5	6.5	5.5	4	11
50	20	25	47	64	130	46	146	60	148	40	130	M10X1.5	22	8	4	92	13.5	8.5	7.5	4.5	13.5
63	20	25	55	78	142	58	158	70	162	50	130	M10X1.5	22	8	4	110	17.8	11	10	7	18.5

