

Features

- Flexible mounting
- Compact
- Precise movement
- High precision
- Magnetic
- Rubber cushioned

RS PRO Compact Guide Cylinder

0180286



RS PRO is the own brand of RS. The RS PRO Seal of Approval is your assurance of professional quality, a guarantee that every part is rigorously tested, inspected, and audited against demanding standards. Making RS PRO the Smart Choice for our customers.

Product Description

The slide cylinders are designed to be used in compact spaces and offer precise movement and positioning. They offer double the output force using their double cylinders with high guiding accuracy and are suitable for use with magnetic switches.

- *Lifting, sliding, moving, pulling and pushing*
- *Packaging, handling, printing, semiconductor, automation, robotics and manufacturing industries*

General Specifications

Stroke	See table below for more details
Bore	See table below for more details
Manufacturer Series	SGM
Action	Double
Pneumatic Connector	See table below for more details
Maximum Operating Pressure	10 bar
Cushioning Type	Rubber
Bearing Type	Slide

Mechanical Specifications

Body	Aluminium
Rod	Chromed Steel
Maximum Operating Temperature	70°C
Minimum Operating Temperature	-20°C
Dimensions	See table below for more details
Weight	See table below for more details
Length	See table below for more details

RS PRO SGM Series Compact Guide Cylinder

Stock No.	Series Model	Bore (mm)	Stroke (mm)	Length (mm)	Height (mm)	Width (mm)	Weight (g)	Pneumatic Connector
2351248	SGM	12	10	52	22	56	180	M5X0.8
2351249	SGM	12	20	62	22	56	180	M5X0.8
0180328	SGM	12	25	67	22	56	200	M5X0.8
0180329	SGM	12	30	72	22	56	220	M5X0.8
0180330	SGM	12	40	82	22	56	250	M5X0.8
2351250	SGM	12	50	92	22	56	420	M5X0.8
2351251	SGM	12	75	117	22	56	480	M5X0.8
0180331	SGM	12	80	122	22	56	500	M5X0.8
0180326	SGM	12	100	142	22	56	261	M5X0.8
0180334	SGM	16	10	56	25	62	185	M5X0.8
2351252	SGM	16	20	66	25	62	371	M5X0.8
0180335	SGM	16	25	71	25	62	463	M5X0.8
2351253	SGM	16	30	76	25	62	560	M5X0.8
0180337	SGM	16	40	86	25	62	623	M5X0.8
2351254	SGM	16	50	96	25	62	708	M5X0.8
2351255	SGM	16	75	121	25	62	973	M5X0.8
0180338	SGM	16	80	126	25	62	720	M5X0.8
0180332	SGM	16	100	146	25	62	867	M5X0.8
0180354	SGM	16	150	196	25	62	970	M5X0.8
2351258	SGM	20	20	73	25	62	750	G1/8"
0180340	SGM	20	25	78	25	62	750	G1/8"
0180286	SGM	20	30	83	30	81	760	G1/8"
0180287	SGM	20	40	93	30	81	880	G1/8"
2351259	SGM	20	50	103	30	81	950	G1/8"
0180289	SGM	20	75	125	30	81	1320	G1/8"
0180341	SGM	20	80	130	30	81	1380	G1/8"
2351256	SGM	20	100	153	30	81	1400	G1/8"
0180356	SGM	20	150	203	30	81	1892	G1/8"
2351257	SGM	20	200	253	30	81	2200	G1/8"

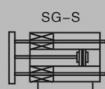
*Scroll to next page for more

Stock No.	Series Model	Bore (mm)	Stroke (mm)	Length (mm)	Height (mm)	Width (mm)	Weight (g)	Pneumatic Connector
0180295	SGM	25	20	74	38	91	980	G1/8"
0180343	SGM	25	25	79	38	91	990	G1/8"
0180296	SGM	25	30	84	38	91	1073	G1/8"
0180297	SGM	25	40	94	38	91	1206	G1/8"
2351260	SGM	25	50	101	38	91	1500	G1/8"
0180299	SGM	25	75	129	38	91	1753	G1/8"
0180344	SGM	25	80	134	38	91	1950	G1/8"
0180290	SGM	25	100	154	38	91	2200	G1/8"
0180292	SGM	25	125	179	38	91	2383	G1/8"
0180293	SGM	25	200	254	38	91	3200	G1/8"
2351261	SGM	32	25	85	44	110	1600	G1/8"
0180350	SGM	32	40	100	44	110	1840	G1/8"
2351262	SGM	32	50	110	44	110	1900	G1/8"
0180302	SGM	32	75	135	44	110	1350	G1/8"
0180352	SGM	32	80	140	44	110	1567	G1/8"
0180300	SGM	32	100	160	44	110	3110	G1/8"
0180346	SGM	32	125	185	44	110	3625	G1/8"
0180347	SGM	32	160	220	44	110	417	G1/8"
0180348	SGM	32	200	260	44	110	4720	G1/8"
0180353	SGM	40	50	116	44	118	2300	G1/8"
2351263	SGM	50	50	122	60	146	3700	G1/4"

Technical Data

SG

Compact Guide Cylinder



Specifications



Bore(mm)	6	10	12	16	20	25	32	40	50	63	
Acting type	Double acting										
Working medium	Clean Air(after 40 μ m filtration)										
Working pressure (MPa)	0.1~1.0										
Guaranteed pressure (MPa)	1.5										
Working temperature (°C)	-20~70(No freezing)										
Piston speed (mm/s)	30~500										
Cushion	Rubber cushion										
Stroke tolerance(mm)	+1.0 0										
No-rotating precision ★	SGL	—			± 0.08°		± 0.07°		± 0.06°		± 0.05°
	SGM	± 0.10°			± 0.09°		± 0.08°		± 0.06°		
Port Size	M3 x 0.5		M5 x 0.8		G1/8 ①				G1/4 ①		

★ Retract position. ① PT, NPT port size is optional.

Stroke

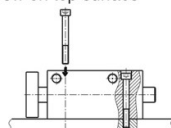
Bore (mm)	Standard Stroke (mm)									
12	10	20	25	30	40	50	75	80	100	
16	10	20	25	30	40	50	75	80	100	150
20		20		30	40	50	75		100	150 200
25		20		30	40	50	75		100 125	200
32			25		40	50	80	100	125	160 200
40/50						50				

Note: the middle non-standard stroke is made by adding a pad in the cylinder of standard stroke; The Ø12~Ø32 cylinder diameter corresponds to every 1mm stroke, and the Ø40~Ø63 cylinder diameter corresponds to every 5mm stroke;

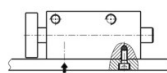
For example, order SGL20*47 non-standard travel cylinder, it is made from SGL20*50 standard travel cylinder with 3mm gasket, its external size, installation size and SGL20*50 the same

How to Mount ?

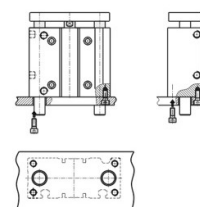
Fixation of screw on top surface



Fixation of screw at bottom surface



Fixation of screw at back surface



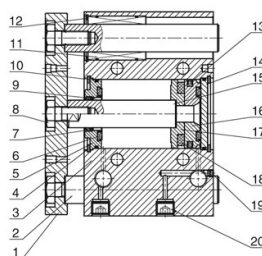
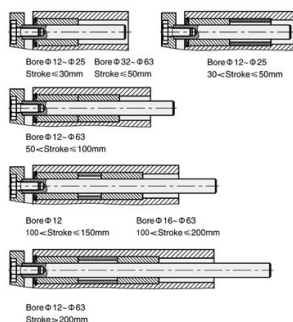
Fixation of T slot at bottom



Dimensions

Internal Structure

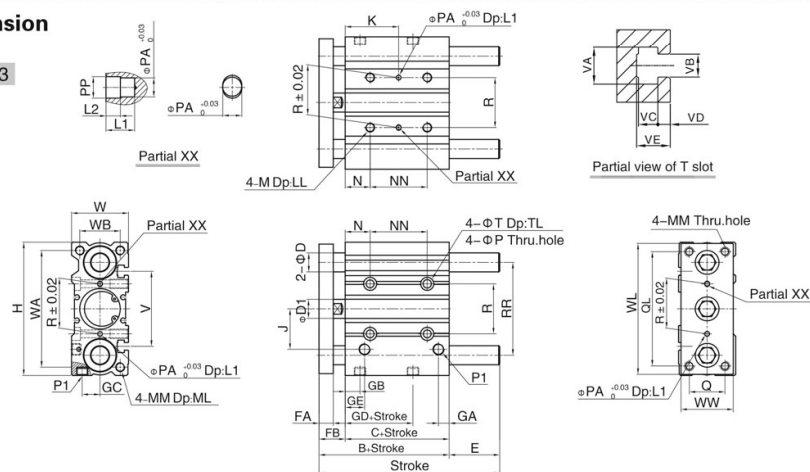
SGM Series



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	Linear bearing(SGL) Slide bearing (SGM)	Brass(SGM) Composite material(SGL)
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(G.)	Carbon steel
21	Spacer	Aluminum alloy

Main Dimension

SG12-63



(mm)																					
Bore\Sign	E(SGL)				E(SGM)					NN				K							
	≤30	31-100	101-200	>200	≤50	51-100	101-200	>200	≤30	31-100	101-200	>200	≤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					
Bore\Sign	≤50	51-100	101-200	>200	≤50	51-100	101-200	>200	≤40	41-100	101-200	>200	≤40	41-100	101-200	>200					
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

Accessories

Stock No.	Brand	Product Name	Length	Number of Wires	Connection
235-1163	RS PRO	Magnetic switch	2 mtr	NA	QD8 Male
235-1161	RS PRO	Magnetic switch	2 mtr	3 wire	NA