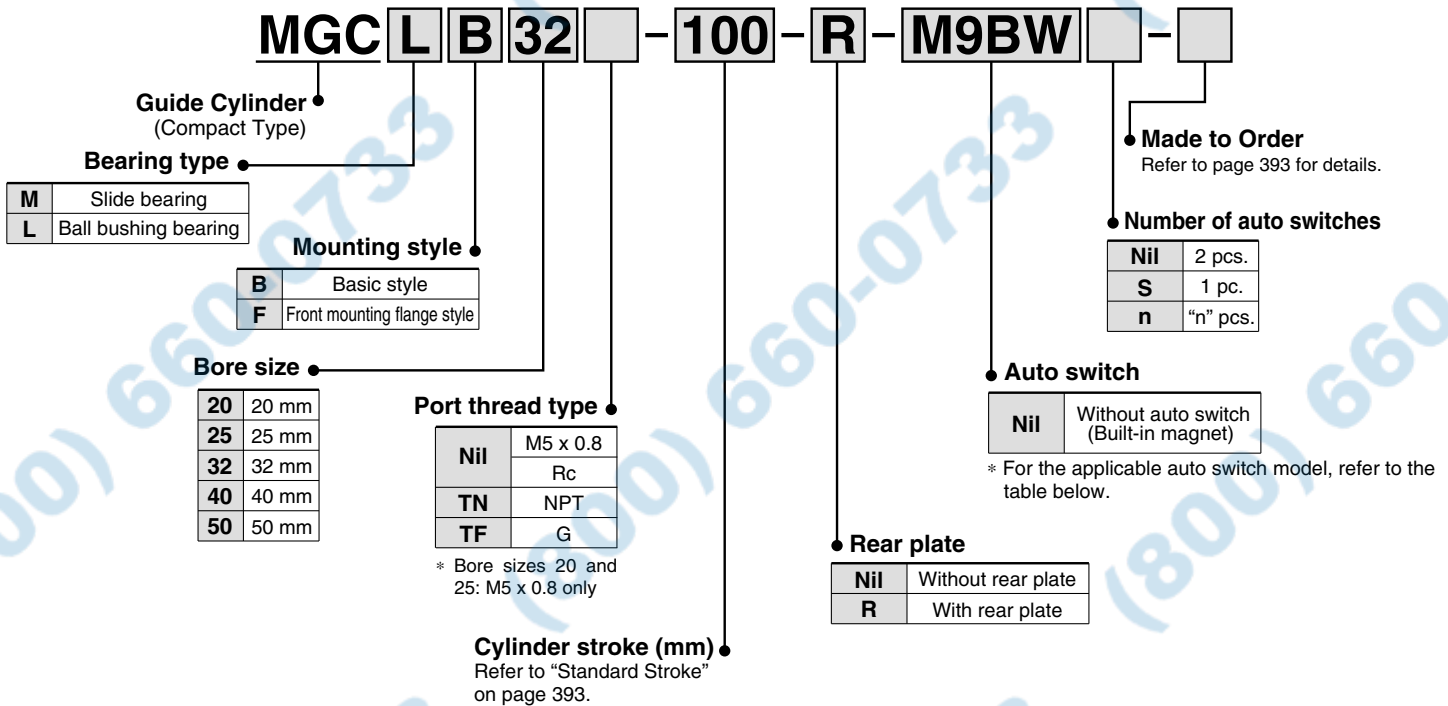


Guide Cylinder/Compact Type

Series MGC

∅20, ∅25, ∅32, ∅40, ∅50

How to Order



Applicable Auto Switch/Refer to pages 1719 to 1827 for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch model				Lead wire length (m)					Pre-wired connector	Applicable load	
					DC	AC	Applicable bore (mm)				0.5 (Nil)	1 (M)	3 (L)	5 (Z)	None (N)			
							∅20, ∅25	∅32	∅40, ∅50									
Solid state switch		Grommet	Yes	3-wire (NPN)	5 V, 12 V		M9N				●	●	●	○	—	○	IC circuit	Relay, PLC
				3-wire (PNP)			M9P				●	●	●	○	—			
		Connector		2-wire	12 V	M9B				●	●	●	○	—	—			
				2-wire	12 V	H7C				●	—	●	●	●	—			
	Diagnostic indication (2-color indication)	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	M9NW				●	●	●	○	—	○		
				3-wire (PNP)			M9PW				●	●	●	○	—			
		Connector		2-wire	12 V	M9BW				●	●	●	○	—	—			
				4-wire (NPN)	5 V, 12 V	H7BA				—	—	●	○	—	○			
Reed switch		Grommet	Yes	3-wire (NPN equivalent)	24 V	12 V	A96				●	—	●	—	—	—		
				2-wire			100 V	A93				●	—	●	—		—	
		Connector		2-wire	100 V or less	A90				●	—	●	—	—	IC circuit			
				2-wire	100 V, 200 V	(B54)		B54		●	—	●	●	—	—			
	Diagnostic indication (2-color indication)	Grommet	Yes	2-wire	24 V	12 V	(B64)		B64		●	—	●	—	—	—		
				2-wire			200 V or less	C73C		●	—	●	●	●	—			
		Connector		2-wire	24 V or less	C80C				●	—	●	●	—	IC circuit			
				2-wire	—	(B59W)		B59W		●	—	●	—	—	—			

* Lead wire length symbols: 0.5 m Nil (Example) M9NW
 1 m M (Example) M9NWM
 3 m L (Example) M9NWL
 5 m Z (Example) M9NWX
 None N (Example) H7CN

* Solid state auto switches marked with "○" are produced upon receipt of order.
 * D-A9□V/M9□V/M9□WV/M9□A(V) types cannot be mounted.

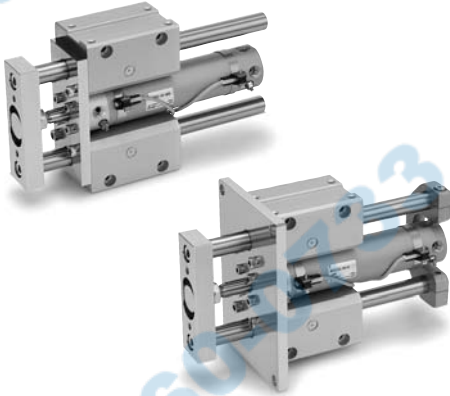
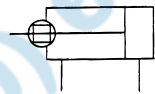
* Since there are other applicable auto switches than listed, refer to page 406 for details.
 * For details about auto switches with pre-wired connector, refer to pages 1784 and 1785.
 * D-A9□V/M9□V/M9□W auto switches are shipped together (not assembled).
 (Only switch mounting brackets are assembled at the time of shipment.)

Caution

When using auto switches shown inside (), stroke end detection may not be possible depending on the One-touch fitting or speed controller model. Please contact SMC in this case.

Specifications

JIS Symbol



Standard Stroke

Model (Bearing type)	Bore size (mm)	Standard stroke (mm)	Long stroke (mm)
MGCM (Slide bearing)	20	75, 100, 125, 150, 200	250, 300, 350, 400
	25	75, 100, 125, 150, 200, 250, 300	350, 400, 450, 500
	32		350, 400, 450, 500, 600
MGCL (Ball bushing bearing)	40	75, 100, 125, 150, 200, 250, 300	350, 400, 450, 500, 600, 700, 800
	50		350, 400, 450, 500, 600, 700, 800, 900, 1000

* Intermediate strokes and short strokes other than the above are produced upon receipt of order.

Specifications

Model	MGC□□20	MGC□□25	MGC□□32	MGC□□40	MGC□□50	
Base cylinder	CDG1BA	Bore size	Port thread type	Stroke	Auto switch	
Bore size (mm)	20	25	32	40	50	
Action	Double acting					
Fluid	Air					
Proof pressure	1.5 MPa					
Maximum operating pressure	1.0 MPa					
Minimum operating pressure	0.15 MPa (Horizontal with no load)					
Ambient and fluid temperature	-10 to 60°C					
Piston speed	50 to 750 mm/s					
Cushion	Air cushion					
Base cylinder lubrication	Non-lube					
Stroke length tolerance	+1.9 +0.2 mm					
Non-rotating accuracy ^{Note 1)}	Slide bearing	±0.07°	±0.06°	±0.06°	±0.05°	±0.04°
	Ball bushing bearing	±0.06°	±0.05°	±0.04°	±0.04°	±0.04°
Piping port size (Rc, NPT, G) ^{Note 2)}	M5 x 0.8		1/8		1/4	

* 1 When the cylinder is retracted (initial value), the non-rotating accuracy without loads or deflection of the guide rods will be below the values shown in the table above as a guideline.

* 2 Bore sizes 20 and 25: M5 x 0.8 only

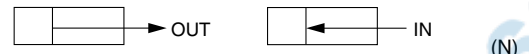


Made to Order Specifications

(For details, refer to pages 1829 to 1954, 1998.)

Symbol	Specifications
-XB6	Heat resistant cylinder (-10 to 150°C)
-XB13	Low speed cylinder (5 to 50 mm/s)
-XC4	With heavy duty scraper
-XC6□	Made of stainless steel
-XC8	Adjustable stroke cylinder/Adjustable extension type
-XC9	Adjustable stroke cylinder/Adjustable retraction type
-XC11	Dual stroke cylinder/Single rod type
-XC13	Auto switch rail mounting style
-XC22	Fluororubber seals
-XC35	With coil scraper
-XC37	Larger throttle diameter of connecting port
-XC56	With knock pin holes
-XC73	Cylinder with lock (CDNG)
-XC74	With front plate for MGG
-XC78	Auto switch mounting special dimensions at stroke end
-XC79	Machining tapped hole, drilled hole, and pin hole additionally
-X440	With piping ports for grease

Theoretical Output



Bore size (mm)	Rod size (mm)	Operating direction	Piston area (mm ²)	Operating pressure (MPa)										
				0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0		
20	8	OUT	314	62.8	94.2	126	157	188	220	251	283	314		
		IN	264	52.8	79.2	106	132	158	185	211	238	264		
25	10	OUT	491	98.2	147	196	246	295	344	393	442	491		
		IN	412	82.4	124	165	206	247	288	330	371	412		
32	12	OUT	804	161	241	322	402	482	563	643	724	804		
		IN	691	138	207	276	346	415	484	553	622	691		
40	16	OUT	1260	252	378	504	630	756	882	1010	1130	1260		
		IN	1060	212	318	424	530	636	742	848	954	1060		
50	20	OUT	1960	392	588	784	980	1180	1370	1570	1760	1960		
		IN	1650	330	495	660	825	990	1160	1320	1490	1650		

Note) Theoretical output (N) = Pressure (MPa) x Piston area (mm²)

MGG

MGP

MGQ

MGG

MGC

MGF

MGZ

MGT

D-□

-X□

Individual
-X□