

ISO Cylinder: Standard Double Acting, Single/Double Rod Series C96

ø32, ø40, ø50, ø63, ø80, ø100, ø125

How to Order

Without auto switch **C96S** **B** **32** **100** **W**

With auto switch **C96SD** **B** **32** **100** **W** **M9BW** **S**

Built-in magnet

Mounting

B	Basic/Without bracket
L	Axial foot
F	Rod end flange
G	Head end flange
C	Single clevis
D	Double clevis
T	Center trunnion

Bore size

32	32 mm
40	40 mm
50	50 mm
63	63 mm
80	80 mm
100	100 mm
125	125 mm

Stroke (mm)

Refer to "Standard Stroke" on page 20.

Auto switch

Nil Without auto switch

* For applicable auto switch model, refer to the below table.

Number of auto switches

Nil	2 pcs.
S	1 pc.
3	3 pcs.
n	"n" pcs.

Rod

Nil	Single rod
W	Double rod

Applicable Auto Switches/Tie-rod Mounting

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	Tie-rod mounting	Band mounting	0.5 (Nil)	1 (M)	3 (L)	5 (Z)								
Solid state switch	—	Grommet	—	3-wire (NPN)	24 V	5 V, 12 V	—	** M9N	●	●	●	○	○	IC						
				3-wire (PNP)				** M9P	●	●	●	○	○							
				2-wire				** M9B	●	●	●	○	○							
	Diagnosis indication (2-color)	Terminal conduit	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	—	G39	—	—	—	—	—	IC					
				2-wire				—	K39	—	—	—	—	—	—					
				3-wire (NPN)				M9NW	●	●	●	○	○	IC						
	Water resistant (2-color)	Grommet	—	3-wire (PNP)	24 V	5 V, 12 V	—	M9PW	●	●	●	○	○	—	IC					
				2-wire				M9BW	●	●	●	○	○	—						
				3-wire (NPN)				M9NA	○	○	●	○	○	—						
	Diagnosis output (2-color)	Grommet	—	3-wire (PNP)	24 V	5 V, 12 V	—	M9PA	○	○	●	○	○	—	IC					
2-wire				M9BA				○	○	●	○	○	—							
Strong magnetic field resistant (2-color)	Grommet	—	4-wire (NPN)	24 V	5 V, 12 V	—	F59F	—	●	—	●	○	○	IC						
			2-wire (Non-polar type)				P4DW	—	—	—	●	●	○	—						
Reed switch	—	Grommet	Yes	3-wire (Equiv. to NPN)	24 V	5 V	—	A96	—	●	—	●	—	—	IC					
				None				2-wire	24 V	12 V	100 V	A93	—	●	—	●	—	—	—	
											100 V or less	A90	—	●	—	●	—	—	—	IC
											100 V, 200 V	A54	—	●	—	●	●	—	—	—
	Diagnosis indication (2-color)	Terminal conduit	Yes	2-wire	24 V	12 V	—	200 V or less	A64	—	●	—	●	—	—	—				
								—	A33	—	—	—	—	—	—	—	—			
								—	A34	—	—	—	—	—	—	—	—			
								100 V, 200 V	A44	—	—	—	—	—	—	—	—			
Diagnosis indication (2-color)	Grommet	—	—	—	—	—	A59W	—	●	—	●	—	—	—	Relay, PLC					

* 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

* Solid state switches marked with "○" are produced upon receipt of order.

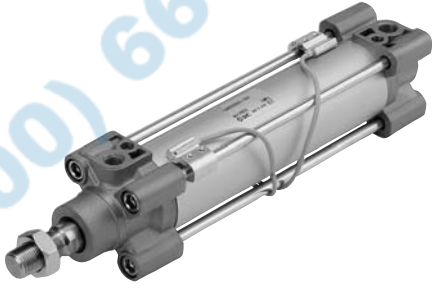
* Since there are other applicable auto switches than listed, refer to SMC "Best Pneumatics 2004" Vol.7/8/9/10 catalog.

* For details about auto switches with pre-wired connector, refer to SMC "Best Pneumatics 2004" Vol.6 catalog.

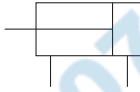
* D-A9□, M9□, M9□W, M9□AL are shipped together, (but not assembled).
(Switch mounting bracket is only assembled at the time of shipment.)

* D-M9BM, M9NM, M9PM type (product of 1 m in length of the lead wire) are applicable from the shipment in May, 2008.

Series C96



JIS Symbol
Double acting



Minimum Stroke for Auto Switch Mounting

Refer to page 28 for "Minimum Stroke for Auto Switch Mounting".

Specifications

Bore size (mm)	32	40	50	63	80	100	125
Action	Double acting						
Fluid	Air						
Proof pressure	1.5 MPa						
Max. operating pressure	1.0 MPa						
Min. operating pressure	0.05 MPa						
Ambient and fluid temperature	Without auto switch: -20 to 70°C With auto switch: -10 to 60°C						
Lubrication	Not required (Non-lube)						
Operating piston speed	50 to 1000 mm/s						50 to 700 mm/s
Allowable stroke tolerance	Up to 250 st: $^{+1.0}_0$, 251 to 1000 st: $^{+1.4}_0$, 1001 to 1500 st: $^{+1.8}_0$, 1501 to 2000 st: $^{+2.2}_0$						
Cushion	Both ends (Air cushion)						
Port size	G 1/8	G 1/4	G 1/4	G 3/8	G 3/8	G 1/2	G 1/2
Mounting	Basic, Axial foot, Rod end flange, Head end flange, Single clevis, Double clevis, Center trunnion						

Standard Stroke

Bore size (mm)	Standard stroke (mm)	Max. stroke *
32	25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500	1000
40	25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500	1900
50	25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500, 600	1900
63	25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500, 600	1900
80	25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500, 600, 700, 800	1900
100	25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500, 600, 700, 800	1900
125	—	2000

Intermediate strokes are available.

* Please consult with SMC for longer strokes.

Accessories

Mounting		Basic	Foot	Rod end flange	Head end flange	Single clevis	Double clevis	Center trunnion
Standard	Rod end nut	●	●	●	●	●	●	●
	Clevis pin	—	—	—	—	—	●	—
Option	Piston rod ball joint	●	●	●	●	●	●	●
	Rod clevis	●	●	●	●	●	●	●
	Rod boot	●	●	●	●	●	●	●

* Please do not use a piston rod ball joint (or floating joint) together with a head end clevis with a ball joint (or angled head end clevis with a ball joint).