

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 J W-

With auto switch

C96SD B 32-100 J W-M9BW S-

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

Built-in magnet
Mounting

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 26.

Auto switch

Nil Without auto switch
* For applicable auto switch model, refer to the below table.

Made to Order
Refer to the page 26 for details.

Number of auto switches	
Nil	2 pcs.
S	1 pc.
3	3 pcs.
n	"n" pcs.

Rod boot

Nil	Without boot
J	Nylon tarpaulin (one end)
JJ	Nylon tarpaulin (both ends)
K	Heat resistant tarpaulin (one end)
KK	Heat resistant tarpaulin (both ends)

Rod

Nil	Single rod
W	Double rod

Applicable Auto Switches/Tie-rod Mounting

Applicable Load Connector and Lead Wiring																	
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	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9N	—	●	●	●	○	○	IC	Relay, PLC	
				3-wire (PNP)				M9P	—	●	●	●	○	○			
		Terminal conduit		2-wire	—	—		100 V, 200 V	M9B	—	●	●	●	○			○
				3-wire (NPN)	24 V	5 V, 12 V		—	G39	—	—	—	—	—			IC
	2-wire	K39		—			—		—	—	—	—					
	Diagnosis indication (2-color)	3-wire (NPN)		24 V	5 V, 12 V	—	M9NW		—	●	●	●	○	○	IC		
		3-wire (PNP)					M9PW		—	●	●	●	○	○	○		
		2-wire					M9BW	—	●	●	●	○	○	—			
		Water resistant (2-color)					3-wire (NPN)	M9NA**	—	○	○	●	○	○	IC		
	3-wire (PNP)			M9PA**	—	○	○	●	○	○	—						
	2-wire			M9BA**	—	○	○	●	○	○	—						
	Diagnosis output (2-color)			4-wire (NPN)	5 V, 12 V	F59F	—	●	—	●	○	○	IC				
	Strong magnetic field resistant (2-color)	2-wire (Non-polar type)	—	P4DW	—	—	—	●	●	—	—						
	Reed switch	—	Grommet	Yes	3-wire (Equiv. to NPN)	—	5 V	—	A96	—	●	—	●	—	—		IC
2-wire					24 V	12 V	100 V	A93	—	●	—	●	—	—	—		
							100 V or less	A90	—	●	—	●	—	—	IC		
							100 V, 200 V	A54	—	●	—	●	●	—	—		
			200 V or less	A64			—	●	—	●	—	—	—				
Terminal conduit			Yes	—	A33	—	—	—	—	—	—	—	—	PLC			
				100 V, 200 V	A34	—	—	—	—	—	—	—	—	Relay, PLC			
				—	A44	—	—	—	—	—	—	—					
		Diagnosis indication (2-color)		Grommet	Yes	—	—	—	A59W	—	●	—	●	—	—	—	

* 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 pages 1263 to 1371 in Best Pneumatics No.2.

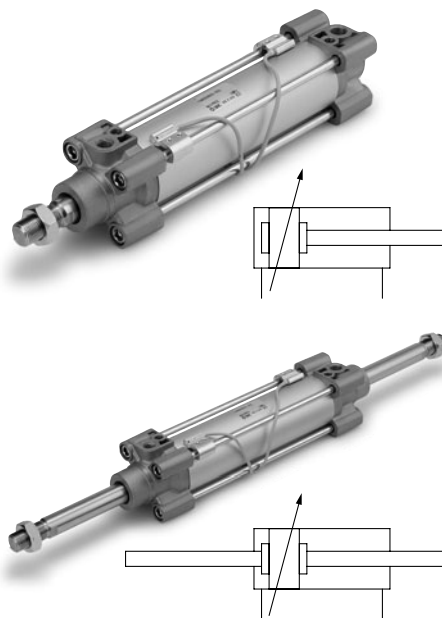
* For details about auto switches with pre-wired connector, refer to pages 1328 and 1329 in Best Pneumatics No.2.

* D-A9□, M9□, M9□W, M9□AL are shipped together, (but not assembled).

(Switch mounting bracket is only assembled at the time of shipment.)

** Water resistant type auto switches can be mounted on the above models, but in such case SMC cannot guarantee water resistance.

Consult with SMC regarding water resistant types with the above model numbers.



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						

* No freezing

Minimum Stroke for Auto Switch Mounting

Refer to page 44 for "Minimum Stroke for Auto Switch Mounting".



Made to Order Specifications

(For details, refer to pages 53 to 58.)

Symbol	Specifications
-XA□	Change of rod end shape
-XC14	Change of trunnion bracket mounting position
-XB6	Heat resistant cylinder (150°C)
-XB7	Cold resistant cylinder
-XC4	With heavy duty scraper
-XC7	Tie rod, cushion valve, tie rod nut, etc. made of stainless steel
-XC10	Dual stroke cylinder/Double rod
-XC11	Dual stroke cylinder/Single rod
-XC22	Fluororubber seals
-XC35	With coil scraper
-XC68	Made of stainless steel (With hard chromium plated piston rod)

Standard Stroke (Single rod)

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

Intermediate strokes are available.

* Please consult with SMC for longer strokes.

** ø125 and Double rod are produced upon receipt of order.

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).