

# Cylinder with Lock Double Acting, Single Rod

## CNS Series

ø125, ø140, ø160

### How to Order

**CNS L [ ] [ ] [ ] - 125 [ ] [ ] - 100 [ ] [ ] - D - [ ] [ ]**

**With auto switch** **CDNS L [ ] [ ] [ ] - 125 [ ] [ ] - 100 [ ] [ ] - D - M9BW [ ] [ ] - [ ] [ ]**

**With auto switch**  
(Built-in magnet)

**Mounting type**

B	Basic type
L	Foot type
F	Rod side flange type
G	Head side flange type
C	Single clevis type
D	Double clevis type
T	Center trunnion type

**Tubing material**

Symbol	Bore size	Without magnet	Built-in magnet
		Tubing material	Tubing material
Nil	ø125, ø140	Aluminum tube (1000 st or less)	Aluminum tube
		Steel tube (1001 st or more)	Aluminum tube
F-1	ø160	Aluminum tube (1200 st or less)	Aluminum tube
		Steel tube (1201 st or more)	Aluminum tube
F-1	ø125 to ø160	Steel tube	Aluminum tube

\* 1 Auto switches are not available with steel tube.

**Bore size**

125	125 mm
140	140 mm
160	160 mm

**Thread type**

Nil	Rc
TN	NPT
TF	G

**Number of auto switches**

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

**Auto switch**

Nil Without auto switch

\* Select applicable auto switch part numbers from the table below.

**Locking direction**

D Both directions

**Made to Order**  
Refer to page 957 for details.

**With rod boot/cushion**

Rod boot	Nil	Without rod boot
	J	Nylon tarpaulin
Cushion	K	Heat resistant tarpaulin
	Nil	With double-side cushion
	N	Without cushion
	R	With rod cushion
H	With head cushion	

**Cylinder stroke (mm)**

Refer to page 957 for maximum stroke.

**Built-in Magnet Cylinder Model**

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.  
(Example) CDNSL140-100-D

### Applicable Auto Switches/Refer to pages 1119 to 1245 for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage			Auto switch model		Lead wire length (m)					Applicable load								
					DC	AC	Tie-rod mounting	Band mounting	0.5 (Nil)	1 (M)	3 (L)	5 (Z)	Pre-wired connector										
														24 V		5 V, 12 V	—	—	—	—	—	—	—
Solid state auto switch	—	Grommet	—	3-wire (NPN)	24 V	5 V, 12 V	—	M9N	●	●	○	○	—	IC circuit									
				3-wire (PNP)				M9P	●	●	○	○											
		Terminal conduit	—	2-wire	24 V	12 V	—	M9B	●	●	○	○	—	—									
				3-wire (NPN)				G39	—	—	—	—			—	IC circuit							
	Diagnostic indication (2-color indicator)	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—		M9W	●	●	○	○	—			IC circuit						
				3-wire (PNP)				M9PW	●	●	○	○											
				2-wire				M9BW	—	○	○	○	○										
				3-wire (NPN)				M9NA*1	—	○	○	●	○		—	IC circuit							
				3-wire (PNP)				M9PA*1	—	○	○	●	○										
				2-wire				M9BA*1	—	○	○	●	○		—	IC circuit							
4-wire (NPN)	F59F	—	●	—	●	○	○																
2-wire (Non-polar)	P3DWA	—	●	—	●	●	○	○															
Reed auto switch	—	—	Yes	3-wire (NPN equivalent)	24 V	5 V	—	A96	●	—	●	—	—	—	IC circuit								
								No	12 V	100 V	A93	—	●	●	●	—	—	—	Relay, PLC				
									5 V, 12 V	100 V or less	A90	—	●	—	—	—	—						
									100 V, 200 V	A54	—	●	—	●	—	—	—						
								Yes	Terminal conduit	2-wire	12 V	100 V, 200 V	—	—	A33	—	—	—	—	—	—	PLC	
													—	—	A34	—	—	—	—	—	—	—	Relay, PLC
													—	—	A44	—	—	—	—	—	—		
Diagnostic indication (2-color indicator)	Grommet	—	—	—	—	—	A59W	—	●	—	●	—	—	—									

\*1 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.

Lead wire length symbols: 0.5 m ---- Nil (Example) M9NWL 1 m ---- M (Example) M9NWL 3 m ---- L (Example) M9NWL 5 m ---- Z (Example) M9NZW

\* Solid state auto switches marked with "C" are produced upon receipt of order.

\* There are other applicable auto switches than listed above. For details, refer to page 971.

\* For details about auto switches with pre-wired connector, refer to pages 1192 and 1193.

\* D-A9□/M9□/M9□/W/M9□/A/P3DWA□ auto switches are shipped together (not assembled). (Only auto switch brackets are assembled at the time of shipment.)