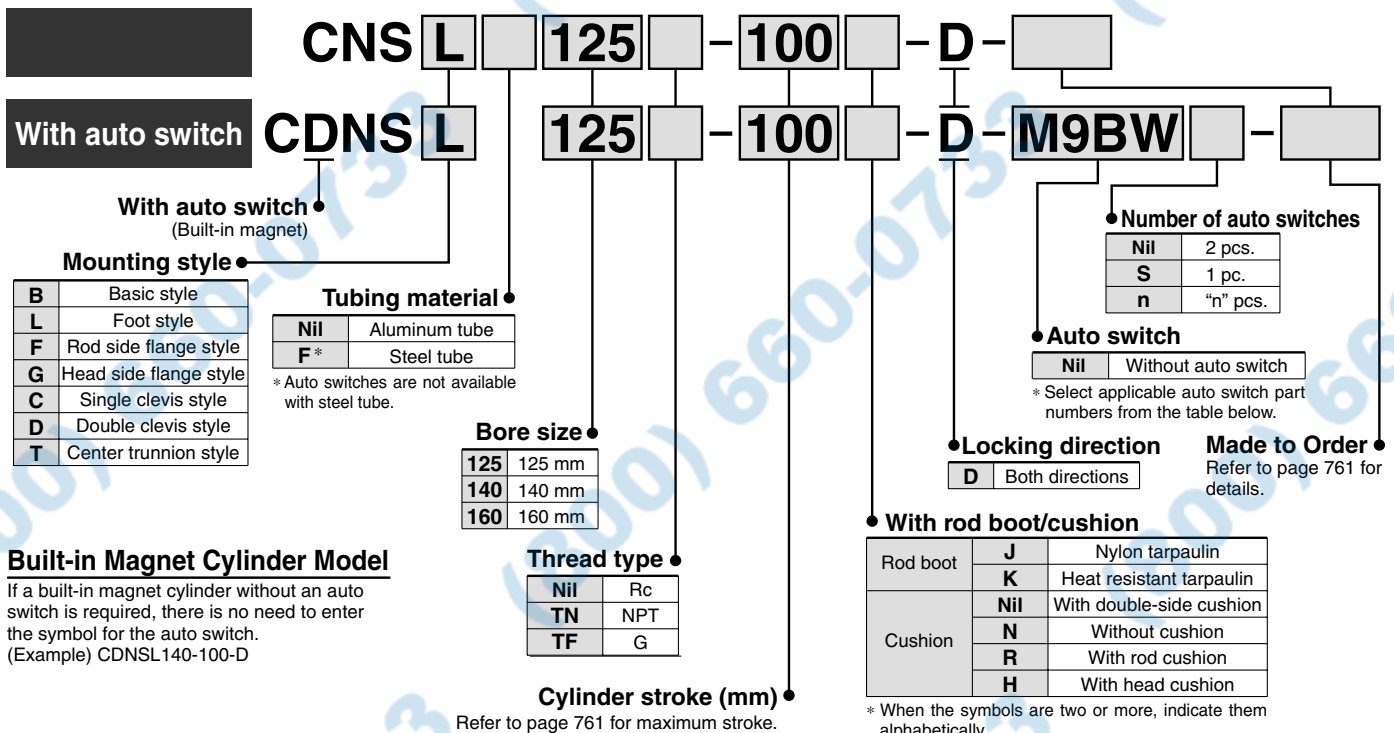


Cylinder with Lock Double Acting, Single Rod Series CNS

ø125, ø140, ø160

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		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 circuit						
				3-wire (PNP)				M9P	—	●	●	●	○	○							
		2-wire	—	—	●	—	●	○	○	○	—										
		3-wire (NPN)	24 V	5 V, 12 V	—	G39	—	—	—	—		—	IC circuit								
	2-wire	—					—	—	—	—	—	—									
	Diagnostic indication (2-color indication)	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9NW	—	●	●	●	○	○	IC circuit						
				3-wire (PNP)				M9PW	—	●	●	●	○	○							
	Water resistant (2-color indication)	Grommet		2-wire	24 V	12 V	—	M9B	—	●	●	●	○	○	—						
				3-wire (NPN)				M9NA	—	○	○	●	○	○		IC circuit					
	With diagnostic output (2-color indication)	Grommet		3-wire (PNP)	24 V	5 V, 12 V	—	M9PA	—	○	○	●	○	○	—						
2-wire				M9BA				—	○	○	●	○	○								
Reed switch				3-wire (NPN equivalent)	24 V	5 V	—	A96	—	●	—	●	—	—	IC circuit						
				Terminal conduit				No	12 V	100 V	A93	—	●	—		●	—	—	—		
									5 V, 12 V	100 V or less	A90	—	●	—		●	—	IC circuit			
									100 V, 200 V	—	A54	—	●	—		●	—				
				DIN terminal				Yes	2-wire	12 V	100 V, 200 V	—	—	A33		—	—	—	—	—	—
												—	—	A34		—	—	—	—	—	
				Diagnostic indication (2-color indication)				Grommet			—	—	—	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) M9NWZ

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

* There are other applicable auto switches than listed above. For details, refer to page 775.

* For details about auto switches with pre-wired connector, refer to pages 1784 and 1785.

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

Cylinder with Lock Double Acting, Single Rod **Series CNS**

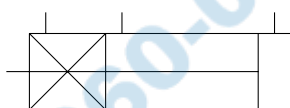
Cylinder Specifications



Bore size (mm)	125	140	160
Lube	Not required (Non-lube)		
Fluid	Air		
Proof pressure	1.57 MPa		
Max. operating pressure	0.97 MPa		
Min. operating pressure	0.08 MPa		
Piston speed	50 to 500 mm/s *		
Ambient and fluid temperature	Without auto switch: 0 to 70°C (No freezing) With auto switch: 0 to 60°C (No freezing)		
Cushion	Air cushion		
Stroke length tolerance	Up to 250: $^{+1.0}_0$, 251 to 1000: $^{+1.4}_0$, 1001 to 1500: $^{+1.8}_0$, 1501 to 1600: $^{+2.2}_0$		
Mounting	Basic style, Axial foot style, Rod side flange style, Head side flange style, Single clevis style, Double clevis style, Center trunnion style		

* Load limits exist depending upon piston speed when locked, mounting direction and operating pressure.

JIS Symbol



Made to Order Specifications
(For details, refer to pages 1836 and 1844.)

Symbol	Specifications
—XA□	Change of rod end shape
—XC14	Change of trunnion bracket mounting position

Refer to pages 773 to 775 for cylinders with auto switches.

- Minimum auto switch mounting stroke
- Proper auto switch mounting position (detection at stroke end) and mounting height
- Operating range
- Switch mounting bracket: Part no.

Lock Specifications

Bore size (mm)	125	140	160
Locking action	Spring locking (Exhaust lock)		
Unlocking pressure	0.25 MPa or more		
Lock starting pressure	0.20 MPa or less		
Operating pressure range	0.25 to 0.7 MPa		
Locking direction	Both directions		
Holding force (kN)	8.4	10.5	13.8

* Be sure to make cylinder selections in accordance with the method given on page 758.

Cylinder Stroke

Tube material	Aluminum alloy			Carbon steel pipe	
	Bore size (mm)	Basic style, Head side flange style, Single clevis style, Double clevis style, Center trunnion style	Basic style, Head side flange style, Single clevis style, Double clevis style, Center trunnion style	Foot style, Rod side flange style	
125, 140	Up to 1000	Up to 1000	Up to 1600		
160	Up to 1200	Up to 1200	Up to 1600		

Cylinder Stroke/Auto Switch Mounting on Cylinder Unit (Built-in Magnet)

Refer to the minimum auto switch mounting stroke (page 774) for those with an auto switch.

Bore size (mm)	Basic style, Head side flange style, Single clevis style, Double clevis style, Center trunnion style	Foot style, Rod side flange style
125, 140	Up to 1000	Up to 1400
160	Up to 1200	Up to 1400

Stopping Accuracy

Lock type	Piston speed (mm/s)		
	100	300	500
Spring locking	±0.5	±1.0	±2.0

Condition: Lateral, Supply pressure P = 0.5 MPa

Load mass Upper limit of allowed value

Solenoid valve for locking Mounted directly to unlocking port

Maximum value of stopping position dispersion from 100 measurements

CLJ2

CLM2

CLG1

CL1

MLGC

CNG

MNB

CNA

CNS

CLS

CLQ

RLQ

MLU

MLGP

ML1C

D-□

-X□

Individual
-X□