

Smooth Cylinder

Series CM2Y

ø20, ø25, ø32, ø40

How to Order

CM2Y **L** **40** **-150-**

With auto switch **CDM2Y** **L** **40** **-150-** **M9BW**

With auto switch
(Built-in magnet)

Mounting style

B	Basic style
L	Axial foot style
F	Rod side flange style
G	Head side flange style
C	Single clevis style
D	Double clevis style
U	Rod side trunnion style
T	Head side trunnion style
E	Integral clevis style
BZ	Boss-cut basic style
FZ	Boss-cut rod side flange style
UZ	Boss-cut rod side trunnion style

Bore size

20	20 mm
25	25 mm
32	32 mm
40	40 mm

Thread type

Nil	Rc
TN	NPT
TF	G

Cylinder stroke (mm)
Refer to "Standard Stroke" on page 1070.

Number of auto switches

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

Auto switch

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

Made to Order
For details, refer to page 1070.

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) CDM2YB20-100

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

Product specification for relay and PLC																
Type	Special function	Electrical entry	Indicator/light	Wiring (Output)	Load voltage		Auto switch model	Lead wire (m)					Pre-wired connector	Applicable load		
					DC	AC		0.5 (Nil)	1 (M)	3 (L)	5 (Z)	None (N)				
Solid state switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9N	●	●	●	○	—	○	IC circuit	Relay, PLC
		3-wire (PNP)		M9P		●		●	●	○	—	○				
		Connector		2-wire		M9B		●	●	●	○	—	○			
				H7C		●		—	●	●	●	—				
	Terminal conduit	3-wire (NPN)	G39A	—	—	—	—	●	—	—	IC circuit					
		2-wire	K39A	—	—	—	—	●	—	—	—					
	Diagnostic indication (2-color)	Grommet	3-wire (NPN)	5 V, 12 V	M9NW	●	●	●	○	—	○	IC circuit				
			3-wire (PNP)	12 V	M9PW	●	●	●	○	—	○	—				
			2-wire	12 V	M9BW	●	●	●	○	—	○	—				
			4-wire (NPN)	5 V, 12 V	H7NF	●	—	●	○	—	○	IC circuit				
Reed switch	—	Grommet	Yes	3-wire (Equiv. NPN)	—	5 V	—	A96	●	—	●	—	—	—	IC circuit	—
				No	24 V	12 V	100 V	A93	●	—	●	—	—	—	—	
							100 V or less	A90	●	—	●	—	—	—	IC circuit	
							100 V, 200 V	B54	●	—	●	●	—	—	—	
		Yes	200 V or less	B64			●	—	●	—	—	—	—	—		
			Connector	—	C73C	●	—	●	●	●	—	IC circuit				
				24 V or less	C80C	●	—	●	●	●	—					
		Terminal conduit	No	—	A33A	—	—	—	—	●	—	—	PLC			
				100 V, 200 V	A34A	—	—	—	—	●	—					
				A44A	—	—	—	—	●	—						
Diagnostic indication (2-color)	Grommet	Yes	—	—	—	B59W	●	—	●	—	—	—	—	Relay, PLC		

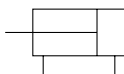
- * Lead wire length symbols: 0.5 m Nil (Example) M9NW * ○: Manufactured upon receipt of order.
 1 m M (Example) M9NWM * D-A9□V□/M9□V□/M9□WV□/M9□A(V)L types cannot be mounted.
 3 m L (Example) M9NWL * Do not add the suffix (N) indicating "no lead wire" to the part numbers of models D-A3□A,
 5 m Z (Example) M9NWZ A44A, G39A and K39A.
 None N (Example) H7CN
- * In addition to the models in the above table, there are some other auto switches that are applicable. For more information, refer to page 1082.
 * Refer to pages 1784 and 1785 for details of auto switches with a pre-wired connector.
 * D-A9□/M9□/□W auto switches are shipped together (not assembled). (Only auto switch mounting brackets are assembled before shipped.)
 * D-C7□□/C80□/H7□□ auto switches are assembled at the time of shipment.

Series CM2Y



JIS Symbol

Double acting: Single rod



Integral clevis



Made to Order

(For details, refer to pages 1836, 1851 to 1954.)

Symbol	Specifications
—XA□	Change of rod end shape
—XC3	Special port location
—XC6	Made of stainless steel
—XC9	Adjustable stroke cylinder/adjustable retraction type
—XC13	Auto switch rail mounting style
—XC20	Head cover axial port

⚠ Precautions

Be sure to read before handling.

Refer to front matters 42 and 43 for Safety Instructions and pages 3 to 11 for Actuator and Auto Switch Precautions.

Handling Precautions

⚠ Warning

1. Do not rotate the cover

- When installing a cylinder or screwing a fitting into the port, the coupling portion of the cover may be damaged if the cover rotates.

⚠ Caution

1. Be careful of the retaining ring to pop out.

- When replacing the rod seal, be careful of the retaining ring not to pop out while removing it.

Replacement Part: Rod Seal

Bore size (mm)	Part no.
20	PDU-8Z
25	PDU-10Z
32	PDU-12LZ
40	PDU-14LZ

Grease Pack for Maintenance

When only grease for maintenance is necessary, please order by the following part numbers.

Grease pack part no.: GR-L-005 (5 g)
GR-L-010 (10 g)
GR-L-150 (150 g)

Specifications

Bore size (mm)	20	25	32	40
Action	Double acting, Single rod			
Piston speed	5 to 500 mm/s			
Fluid	Air			
Proof pressure	1.05 MPa			
Maximum operating pressure	0.7 MPa			
Ambient and fluid temperature	Without auto switch -10 to 70°C (with no freezing) With auto switch -10 to 60°C (with no freezing)			
Lubrication	Non-lube			
Stroke length tolerance	$+1.4$ 0 mm			
Cushion	Rubber bumper			
Allowable leakage rate	0.5 ℓ/min (ANR) or less			

Minimum Operating Pressure

Bore size (mm)	20	25	32	40
Minimum operating pressure	0.02			

Unit: MPa

Mounting Bracket Part No.

Mounting bracket	Minimum order	Bore size (mm)				Description (when ordering a minimum number)
		20	25	32	40	
Axial foot*	2	CM-L020B	CM-L032B	CM-L040B		Foot 2 pcs., Mounting nut 1 pc.
Flange	1	CM-F020B	CM-F032B	CM-F040B		Flange 1 pc., Mounting nut 1 pc.
Single clevis**	1	CM-C020B	CM-C032B	CM-C040B		Single clevis 1 pc., Liner 3 pcs.
Double clevis (with pin) **, ***	1	CM-D020B	CM-D032B	CM-D040B		Double clevis 1 pc., Liner 3 pcs., Clevis pin 1 pc., Retaining ring 2 pcs.
Trunnion (with nut)	1	CM-T020B	CM-T032B	CM-T040B		Trunnion 1 pc., Trunnion nut 1 pc.

* When ordering foot brackets, order 2 pieces per cylinder unit.

** Three liners are included in the clevis bracket for adjusting an angle when mounting it.

*** Clevis pins and retaining rings (cotter pins for ø40) are included.

Mounting Bracket and Accessory

Accessory	Standard			Option		
	Mounting nut	Rod end nut	Clevis pin	Single knuckle joint	Note 3) Double knuckle joint	Note 4) Clevis bracket
Basic style	● (1 pc.)	●	—	●	●	—
Axial foot style	● (2)	●	—	●	●	—
Rod side flange style	● (1)	●	—	●	●	—
Head side flange style	● (1)	●	—	●	●	—
Integral clevis style	— Note 1)	●	—	●	●	●
Single clevis style	— Note 1)	●	—	●	●	—
Double clevis style Note 3)	— Note 1)	●	● Note 5)	●	●	—
Rod side trunnion style	● (1) Note 2)	●	—	●	●	—
Head side trunnion style	● (1) Note 2)	●	—	●	●	—
Boss-cut basic style	● (1)	●	—	●	●	—
Boss-cut flange style	● (1)	●	—	●	●	—
Boss-cut trunnion style	● (1)	●	—	●	●	—



Note 1) Mounting nuts are not attached to the integral clevis, single clevis and double clevis types.

Note 2) Trunnion nuts are mounted on the rod side trunnion style and head side trunnion style.

Note 3) Pins and retaining rings (cotter pins in case of ø40) are packed with the double clevis and double knuckle joint styles.

Note 4) Pins and retaining rings are packed with clevis brackets.

Note 5) Retaining rings (cotter pins for ø40) are included in clevis pins.

Standard Stroke

Bore size (mm)	Standard stroke (mm)
20, 25, 32, 40	25, 50, 75, 100, 125, 150, 200, 250, 300



Note 1) Manufacture of intermediate strokes at 1 mm intervals is possible. (Spacers are not used.)

Note 2) As the stroke increases, more sliding resistance may result due to the deflection of the piston rod and other factors. Take measures such as the installation of a guide.

