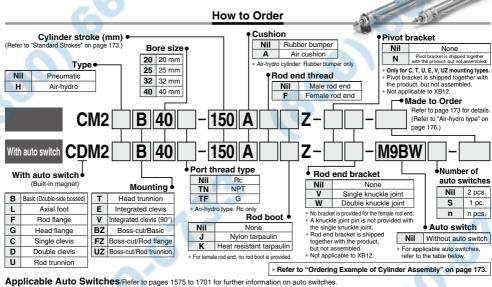
# Air Cylinder: Standard Type Double Acting, Single Rod

**CM2** Series Ø20, Ø25, Ø32, Ø40

RoHS

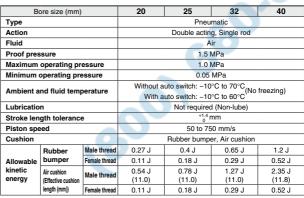


		Classical	iĝ	Wiring	Load volt		Itage Auto switch model		ch model	Lead wire length (m)					Pre-wired		
Туре	Special function Electrical entry		Indicatorlight	(Output)	DC		AC	Perpendicular	In-line	0.5 (Nil)	1 (M)	3 (L)		None	connector	Applicable load	
switch		Grommet  Connector  Terminal conduit	Yes	3-wire (NPN)		5 V, 12 V 12 V 5 V, 12 V 12 V		M9NV	M9N	•		•	0	_	0	IC circuit	rouit
				3-wire (PNP)				M9PV	M9P	•	•	•	0	<b> </b> -	0	IC CITCUIT	
				2-wire				M9BV	M9B	•	•	•	0	<u> </u>	0		
									H7C	•	_	•	•	•			ļ
				3-wire (NPN)				_	G39A	_	_	_	_	•	_	IC circuit	Relay,
anto				2-wire					K39A	_	_	_	_	•	_	_	
state a	Diagnostic indication (2-color indicator)			3-wire (NPN)	24 V 5 V, 12 V	,	M9NWV	M9NW	•	•	•	0	<u> </u>	0		PLC	
		Grommet		3-wire (PNP)		12 V 5 V, 12 V	v	M9PWV	M9PW	•	•	•	0	<u>  — </u>	0	TO OHOUR	_
b b				2-wire				M9BWV	M9BW	•	•	•	0	_	0		
Solid	Water resistant (2-color indicator)			3-wire (NPN)	1			M9NAV*1	M9NA*1	0	0	•	0	-	0	IC circuit	
0)				3-wire (PNP)				M9PAV*1	M9PA*1	0	0	•	0	_	0		ļ
,				2-wire		12 V		M9BAV*1	M9BA*1	0	0	•	0	-	0		-
	With diagnostic output (2-color indicator)		_	4-wire (NPN)		5 V, 12 V			H7NF	•	-	•	0	-	0	IC circuit	
	_	Grommet	Yes No Yes	3-wire (NPN equivalent)	_	5 V	_	A96V	A96	•	_	•	_	_	_	IC circuit	_
_				No / 88 No		12 V	100 V	A93V*2	A93	•	•	•	•	_	_	_	— C circuit
호							100 V or less	A90V	A90	•	<u>  —</u>	•	<u> </u>	<u>  —</u>	_	IC circuit	
×							100 V, 200 V		B54	•	<u> </u>	•	•	<u> </u>	_	Relay, PLC	
ĕ			೭				200 V or less		B64	•	<u> </u>	•	_	<u> </u>			
Reed auto switch		-	No Yes	2-wire	24 V		_	_	C73C	•	_	•	•	•	_		
			Yes	2 WIIC 24			24 V or less	_	C80C	•	_	•	•	•	_		
		Terminal							A33A	_	_	_	_	•	_		PLC
		conduit					100 V, 200 V	_	A34A		-	_	_	•	_	l _	Relay.
		DIN terminal					111 1,200 1		A44A	_	-	_	_	•	_	4	PLC
	Diagnostic indication (2-color indicator)	Grommet		4			_	_	B59W	•	<u>  —</u>	•		<u>  —</u>	_		

- \*1 Water resistant type auto switches can be mounted on the above models, but in such case SMC cannot guarantee water resistance.
- A water-resistant type cylinder is recommended for use in an environment which requires water resistance.
- \*2 1 m type lead wire is only applicable to D-A93.
- \* Lead wire length symbols: 0.5 m ......Nii (Example) M9NW
  - 1 m ······ M (Example) M9NWM 3 m ······ L (Example) M9NWL
  - 5 m ······ Z (Example) M9NWZ None ····· N (Example) H7CN
- \* Solid state auto switches marked with "○" are produced upon receipt of order.
   \* Do not indicate suffix "N" for no lead wire on the D-A3□A/A44A/G39A/K39A models
- 3 m ······ L (Example) M9NWL
- \* Since there are other applicable auto switches than listed above, refer to page 266 for details. 
  \* For details about auto switches with pre-wired connector, refer to pages 1648 and 1649.
- \* The D-A9□□/M9□□□ auto switches are shipped together, (but not assembled). (However, only the auto switch mounting brackets are assembled before shipment.)

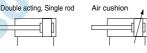
## Air Cylinder: Standard Type Double Acting, Single Rod CM2 Series

#### Specifications



\* Operate the cylinder with in the allowable kinetic energy.

#### Symbol



Refer to pages 262 to 266 for cylinders with auto switches

- · Auto switch proper mounting position (detection at stroke end) and its mounting height
- . Minimum stroke for auto switch mounting
- · Operating range
- Auto switch mounting brackets/Part no.

#### Made to Order: Individual Specifications (For details, refer to page 267.) Symbol Specifications

-X446	PTFE grease	

### Made to Order

(For details, refer to pages 1703 to 1896.)						
Symbol	Specifications					
-XA□	Change of rod end shape					
-XB6	Heat resistant cylinder (-10 to 150°C)					
-XB7	Cold resistant cylinder (-40 to 70°C)*1					
-XB9	Low speed cylinder (10 to 50 mm/s)*1					
-XB12	External stainless steel cylinder*2					
-XB13	Low speed cylinder (5 to 50 mm/s)*2					
-XC3	Special port location					
-XC4	With heavy duty scraper					
-XC5	Heat resistant cylinder (-10 to 110°C)					
-XC6	Made of stainless steel					
-XC8	Adjustable stroke cylinder/Adjustable extension type					
-XC9	9 Adjustable stroke cylinder/Adjustable retraction type					
-XC10	C10 Dual stroke cylinder/Double rod type*1					
-XC11	Dual stroke cylinder/Single rod type					
-XC12	Tandem cylinder*1					
-XC13	Auto switch rail mounting					
-XC20	Head cover axial port					
-XC22	Fluororubber seal					
-XC25	No fixed throttle of connection port*1					
-XC27	Double clevis and double knuckle pins made of stainless steel					
-XC29	Double knuckle joint with spring pin					
-XC35	With coil scraper*1					
-XC52	Mounting nut with set screw					
-XC85	Grease for food processing equipment					

<sup>\*1</sup> Rubber bumper only.

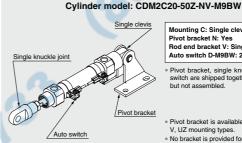
#### Standard Strokes

Bore size (mm)	Standard stroke (mm) Note 1)	Maximum manufacturable stroke (mm)
20		1000
25	25, 50, 75, 100, 125, 150, 200, 250, 300	1500
32	25, 50, 75, 100, 125, 150, 200, 250, 300	2000
40		2000

Note 1) Intermediate strokes not listed above are produced upon receipt of order.

Manufacture of intermediate strokes in 1 mm increments is possible. (Spacers are not used.) Note 2) Applicable strokes should be confirmed according to the usage. For details, refer to "Air Cylinders Model Selection" on front matter pages. In addition, the products that exceed the standard stroke might not be able to fulfill the specifications due to the deflection etc.

#### Option: Ordering Example of Cylinder Assembly



**∕**SMC

Mounting C: Single clevis Pivot bracket N: Yes Rod end bracket V: Single knuckle joint Auto switch D-M9BW: 2 pcs.

- Pivot bracket, single knuckle joint and auto switch are shipped together with the product, but not assembled.
- \* Pivot bracket is available only for C, T, U, E, V, UZ mounting types.
- \* No bracket is provided for the female rod end.



CJ1

CJP

CJ2

JCM

CM<sub>2</sub>

CM3

CG1

CG3

**JMB** 

MB

MB<sub>1</sub> CA2

CS<sub>1</sub>

CS<sub>2</sub>

Technical

173



<sup>\*2</sup> The shape is the same as the current product.