

# Compact Cylinder with Solenoid Valve/ Guide Rod Type

## Series CVQM

ø32, ø40, ø50, ø63



### How to Order

**CVQM 32-30-M9BW - 5 M**

**Bore size**

32	32 mm
40	40 mm
50	50 mm
63	63 mm

**Cylinder stroke (mm)**

Refer to the next page for "Standard Stroke" and "Intermediate Stroke".

**Auto switch**

Nil	Without auto switch (Built-in magnet)
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\* For applicable auto switch models, refer to the below table.

**Number of auto switches**

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

**Rated voltage**

5	24 VDC
6	12 VDC

**Port thread type**

Nil	M5 x 0.8	ø32 ø40
	Rc	ø50 ø63
F	G	
N	NPT	

**Piping**

Nil	Standard
P	Axial

**Standard piping**

**Axial piping**

**Manual override**

Nil	Non-locking push type
B	Locking slotted type

**Surge voltage suppressor**

Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor
R	With surge voltage suppressor (Non-polar)
U	With light/surge voltage suppressor (Non-polar)

**Electrical entry**

<b>M</b>	<b>MO</b>
M-type plug connector with lead wire (300 mm)	M-type plug connector without connector

\* For lead wire lengths other than 300 mm, refer to the plug connector lead wire. (Page 5)

### Applicable Auto Switches/Refer to pages 11 to 13 for detailed auto switch specifications.

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	Perpendicular	In-line	0.5 (Nil)	1 (M)	3 (L)	5 (Z)					
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9NV	M9N	●	●	●	○	○	IC circuit	Relay, PLC		
				3-wire (PNP)				M9PV	M9P	●	●	●	○	○				
				2-wire				M9BV	M9B	●	●	●	○	○				
	Diagnostic indication (2-color indication)			3-wire (NPN)	24 V	5 V, 12V		M9NWV	M9NW	●	●	●	○	○	IC circuit			
				3-wire (PNP)				M9PWV	M9PW	●	●	●	○	○				
				2-wire				M9BWV	M9BW	●	●	●	○	○				
				Water resistant (2-color indication)	3-wire (NPN)	24 V		5 V, 12V	M9NAV**	M9NA**	○	○	●	○	○		IC circuit	
					3-wire (PNP)				M9PAV**	M9PA**	○	○	●	○	○			
					2-wire				M9BAV**	M9BA**	○	○	●	○	○			
Reed auto switch	—	Grommet	Yes	3-wire (NPN equivalent)	—	5 V	—	A96V	A96	●	—	●	—	—	IC circuit	—		
				2-wire	24 V	12 V	100 V	A93V	A93	●	—	●	—	—	—	—	IC circuit	Relay, PLC
						5 V, 12 V	100 V or less	A90V	A90	●	—	●	—	—	—			

\*\* 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.

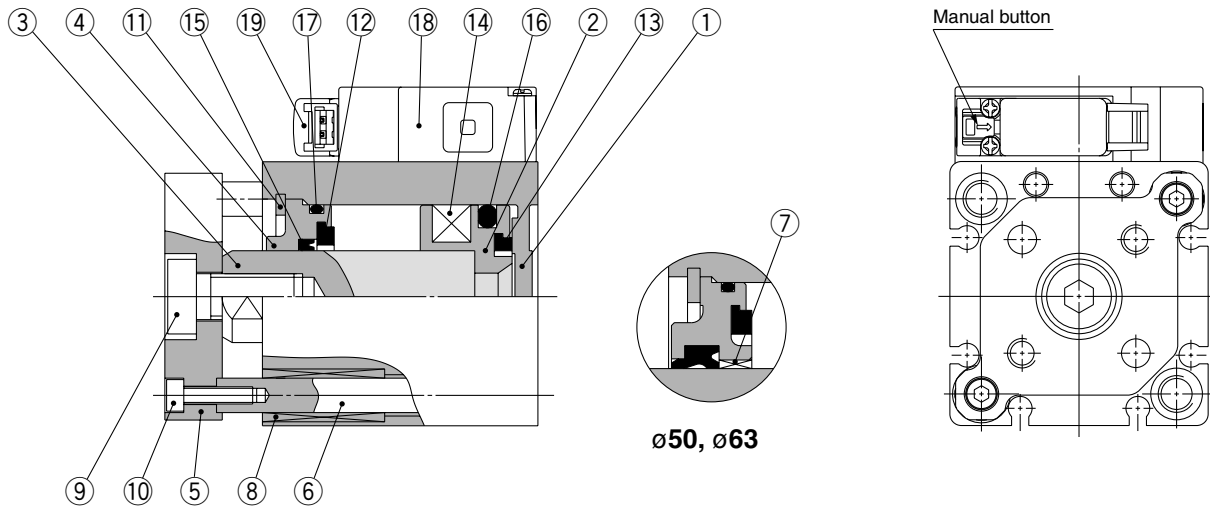
\* Lead wire length symbols: 0.5 m ..... Nil (Example) M9NW  
1 m ..... M M9NWM  
3 m ..... L M9NWL  
5 m ..... Z M9NWX

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

\* For details about auto switches with pre-wired connector, refer to pages 1784 and 1785 of Best Pneumatics No. 3.

\* Auto switches are shipped together, (but not assembled).

## Construction



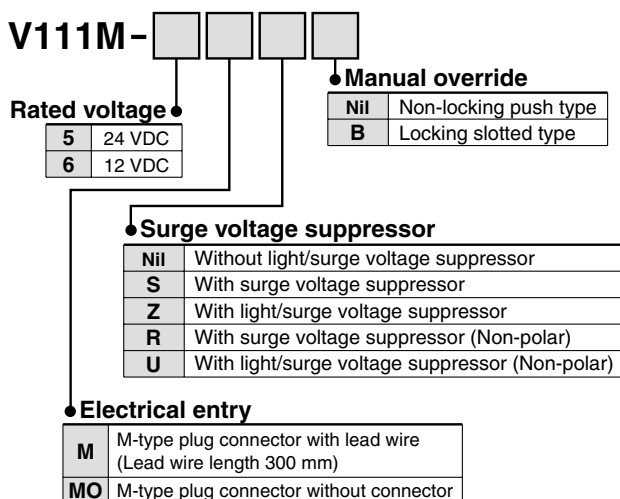
### Component Parts

No.	Description	Material	Note
1	Cylinder tube	Aluminum alloy	Hard anodized
2	Piston	Aluminum alloy	Chromated
3	Piston rod	Carbon steel	Hard chrome plated
4	Collar	Alluminum alloy casted	ø50, ø63, Chromated, painted
		Aluminum alloy	ø32, ø40, Anodized
5	Plate	Aluminum alloy	Anodized
6	Guide rod	Stainless steel	
7	Bushing	Bearing alloy	ø50, ø63
8	Bushing	Oil impregnated sintered alloy	
9	Hexagon socket head bolt	Carbon steel	Nickel plated
10	Hexagon socket head bolt	Carbon steel	Nickel plated
11	Retaining ring	Carbon tool steel	Phosphate coated
12	Bumper A	Urethane	
13	Bumper B	Urethane	
14	Magnet	—	
15	Rod seal	NBR	
16	Piston seal	NBR	
17	Gasket	NBR	
18	Solenoid valve	—	
19	Pilot valve	—	

### Length of plug connector lead wire

The standard length of the plug connector with a lead wire is 300 mm, but other lengths are available as follows.

## How to Order Pilot Valve Assembly



## How to Order Connector Assembly

With lead wire: **SY100-30-4A-** [ ]

### Lead wire length

Nil	300 mm	20	2000 mm
6	600 mm	25	2500 mm
10	1000 mm	30	3000 mm
15	1500 mm	50	5000 mm

### How to Order

Indicate the part number of the connector assembly in addition to the part number of the solenoid valve without the connector for the plug connector. Example) Lead wire length 2000 mm

**When ordering cylinder with valve**  
**CVQM32-30-M9B-5MOZ**  
**SY100-30-4A-20**