

Air Cylinder: Standard Single Acting, Spring Return/Extend C75 Series

ø32, ø40

RoHS

How to Order

Single acting, Spring return/extend **C D 75 E 32 - 100 S L V - B - M9BW**

Built-in magnet

Nil	None
D	Built-in magnet

Head cover type

E	Double end boss-cut
F	Boss-cut/Basic
Y	Head cover axial port

Applicable head cover

Action	Head cover type		
	E	F	Y
Single acting, Spring return	●	●	●
Single acting, Spring extend	●	●	—

Bore size

32	32 mm
40	40 mm

Cylinder stroke [mm]

Refer to the next page for standard strokes.

Action

S	Single acting, Spring return
T	Single acting, Spring extend

Auto switch mounting type*1

A	Rail mounting
B	Band mounting

*1 The symbol is "Nil" for no magnet.

Accessory*1

Nil	None
V	Rod end

*1 Refer to Mounting Brackets/Accessories on page 72 for details of accessories.
* Accessory is shipped together with the product.

Number of auto switches

Nil	2
S	1
n	n

Auto switch

Nil	Without auto switch
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* For applicable auto switches, refer to the table below.
* Auto switches are shipped together with the product.

Mounting bracket*1

Nil	None
L	Single foot
M	Double foot
G	Flange
U	Trunnion
N	Clevis

*1 Refer to Mounting Brackets/Accessories on page 72 for details of mounting brackets.
* Mounting bracket is shipped together with the product.

Applicable mounting bracket

Action	Head cover type	Mounting bracket				
		L	M	G	U	N
Single acting, Spring return	E	●	●	●	●	●
	F	●	—	●	●	●
	Y	●	—	●	●	●
Single acting, Spring extend	E	●	●	●	●	●
	F	●	—	●	●	●

Made to order
For details, refer to page 71.

Applicable Auto Switches/Refer to the Web Catalog or Best Pneumatics No. 2-1 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	Band mounting		Rail mounting		0.5 (Nil)	1 (M)	3 (L)	5 (Z)	None (N)				
							Perpendicular	In-line	Perpendicular	In-line									
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	5 V, 12 V	—	M9NV	M9N	F7NV	F79	●	●	●	○	—	○	IC circuit	Relay, PLC	
		3-wire (PNP)		M9PV			M9P	F7PV	F7P	●	●	●	○	—	○				
	Connector	2-wire		12 V	M9BV		M9B	F7BV	J79	●	●	●	○	—	○	—			
	Diagnostic indication (2-color indicator)	Grommet		3-wire (NPN)	5 V, 12 V		M9NWV	M9NW	F7NWV	F79W	●	●	●	○	—	○	IC circuit		
				3-wire (PNP)	24 V		M9PWV	M9PW	—	F7PW	●	●	●	○	—	○			
				2-wire	12 V		M9BWV	M9BW	F7BWV	J79W	●	●	●	○	—	○	—		
				Water resistant (2-color indicator)	Grommet		3-wire (NPN)	5 V, 12 V	M9NAV*1	M9NA*1	—	—	○	○	●	○	—		○
	3-wire (PNP)	M9PAV*1					M9PA*1	—	—	○	○	●	○	—	○				
	2-wire	12 V					M9BAV*1	M9BA*1	F7BAV*1	F7BA*1	○	○	●	○	—	○	—		
	With diagnostic output (2-color indicator)	Grommet		4-wire (NPN)	5 V, 12 V		—	H7NF	—	F79F	●	—	●	○	—	○	IC circuit		
Reed auto switch	—		Yes	3-wire (NPN equivalent)	—	5 V	—	A96V	A96	—	A76H	●	—	●	—	—	—	IC circuit	—
		—				200 V	—	—	A72	A72H	●	—	●	—	—	—	—		
		24 V			12 V	100 V	A93V*2	A93	A73*2	A73H*2	●	●	●	●	—	—	—	—	
						100 V or less	A90V	A90	A80	A80H	●	—	●	—	—	—	—	IC circuit	
	24 V or less		—	C73C		A73C	—	—	●	—	●	●	●	—	—	—			
	Diagnostic indication (2-color indicator)	Grommet	Yes	2-wire	24 V	12 V	—	—	C80C	A80C	—	—	●	—	●	●	—	—	IC circuit
							—	—	—	—	A79W	—	—	—	—	—	—	—	—
—							—	—	—	—	—	—	—	—	—	—	—	—	—

*1 Water resistant type auto switches can be mounted on the above models, but SMC cannot guarantee water resistance.

Please contact SMC regarding water resistant types with the above model numbers.

*2 1 m lead wire is only applicable to the D-A93.

* Lead wire length symbols: 0.5 m..... Nil (Example) M9NW 5 m..... Z (Example) M9NWZ
1 m..... M (Example) M9NWM None..... N (Example) H7CN
3 m..... L (Example) M9NWL

* Since there are other applicable auto switches than listed above, refer to page 111 for details.

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

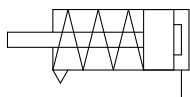
* D-A9□/M9□/A7□/A80□/F7□/J7□ auto switches are shipped together, but not assembled. (For band mounting, only the auto switch mounting brackets are assembled before shipment.)

C75 Series

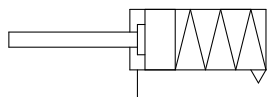


Symbol

Single acting: Spring return, Rubber bumper



Single acting: Spring extend, Rubber bumper



Refer to pages 101 to 111 for cylinders with auto switches.

- Auto Switch Proper Mounting Position (Detection at stroke end) and Mounting Height
- Minimum Stroke for Auto Switch Mounting
- Operating Range
- Auto Switch Mounting Brackets/Part No.



Made to Order
(For details, refer to pages 115 to 120.)

Symbol	Specifications
-XA	Change of rod end shape
-XC6□	Made of stainless steel

⚠ Precautions

Be sure to read this before handling the products. Refer to the back cover for safety instructions. For actuator and auto switch precautions, refer to the “Handling Precautions for SMC Products” and the “Operation Manual” on the SMC website: <http://www.smworld.com>

Specifications

Bore size [mm]	32	40
Type	Pneumatic	
Action	Single acting, Single rod	
Fluid	Air	
Proof pressure	1.5 MPa	
Max. operating pressure	1.0 MPa	
Min. operating pressure	Spring return: 0.18 MPa Spring extend: 0.23 MPa	
Ambient and fluid temperature	Without auto switch: -20°C to 80°C (No freezing) With auto switch: -10°C to 60°C (No freezing)	
Lubricant	Not required (Non-lube)	
Stroke length tolerance	$^{+1.4}_0$ mm	
Piston speed	50 to 750 mm/s	
Cushion	Rubber bumper	
Allowable kinetic energy	0.65 J	1.2 J

Standard Strokes

Bore size [mm]	Standard stroke [mm]*2	Max. stroke [mm]
32	10, 25, 50, 100, 150, 200, 250*1	200
40		250

*1 Not available for ø32.

*2 Other strokes are available on request. (Made to order)

Spring Retracting Force

Spring Return

[N]

Bore size [mm]	Standard stroke [mm]	Spring force													
		10		25		50		100		150		200		250	
		Rod extended	Rod retracted	Rod extended	Rod retracted	Rod extended	Rod retracted	Rod extended	Rod retracted	Rod extended	Rod retracted	Rod extended	Rod retracted	Rod extended	Rod retracted
32	10, 25, 50, 100, 150, 200	53.9	48.8	53.9	41.2	53.9	28.4	66.7	19.6	66.7	18.1	66.7	19.6	—	—
40	10, 25, 50, 100, 150, 200, 250	78.5	72.6	78.5	63.7	78.5	49.0	76.5	23.5	76.5	23.5	76.5	23.5	76.5	23.5

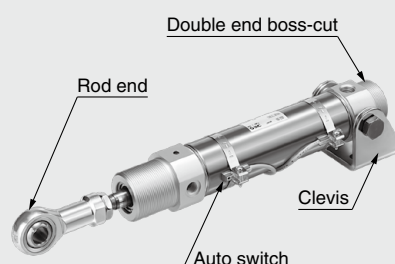
Spring Extend

[N]

Bore size [mm]	Standard stroke [mm]	Spring force													
		10		25		50		100		150		200		250	
		Rod retracted	Rod extended	Rod retracted	Rod extended	Rod retracted	Rod extended	Rod retracted	Rod extended	Rod retracted	Rod extended	Rod retracted	Rod extended	Rod retracted	Rod extended
32	10, 25, 50, 100, 150, 200	66.7	56.3	66.7	40.7	66.7	14.7	66.7	19.6	66.7	18.1	66.7	19.6	—	—
40	10, 25, 50, 100, 150, 200, 250	76.5	65.9	76.5	50.0	76.5	23.5	76.5	23.5	76.5	23.5	76.5	23.5	76.5	23.5

Option: Ordering Example of Cylinder Assembly

Cylinder model: CD75E40-50SNV-B-M9BW



Head cover E: Double end boss-cut
Mounting bracket N: Clevis
Rod end bracket V: Rod end
Auto switch D-M9BW: Band mounting, 2 pcs.

* Mounting bracket, rod end, and auto switch are shipped together with the product.