

Air Cylinder: Standard Double Acting, Single Rod C75 Series

ø32, ø40

RoHS

How to Order

Double acting, Single rod **C D 75 E 32 - 100 C J 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
Rubber bumper	● ● ●
Air cushion	● — —

Bore size

32	32 mm
40	40 mm

Cylinder stroke [mm]
Refer to the next page for standard strokes.

Cushion

Nil	Rubber bumper (Standard)
C	Air cushion

Rod boot

Nil	Without rod boot
J	Nylon tarpaulin (One end)
K	Heat resistant tarpaulin (One end)

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 58 for details of accessories.
* Accessory is shipped together with the product.

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 58 for details of mounting brackets.
* Mounting bracket 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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Applicable mounting bracket

Action	Head cover type	L	M	G	U	N
Rubber bumper	E	●	●	●	●	●
	F	●	—	●	●	●
	Y	●	—	●	●	●
Air cushion	E	●	●	●	●	●

Made to order
For details, refer to page 57.

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	
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	5 V, 12 V	—	Band mounting		Rail mounting		0.5 (Nil)	1 (M)	3 (L)	5 (Z)	None (N)	IC circuit	Relay, PLC	
		3-wire (PNP)		Perpendicular			In-line	Perpendicular	In-line	●	●	●	○	—	○			
	Connector	2-wire		12 V	M9PV		M9P	F7PV	F7P	●	●	●	○	—	○	—		—
	Diagnostic indication (2-color indicator)	Grommet		3-wire (NPN)	5 V, 12 V		M9NV	M9N	F7NV	F79	●	●	●	○	—	○		IC circuit
				3-wire (PNP)	5 V, 12 V		M9PV	M9P	F7PV	F7P	●	●	●	○	—	○		
				2-wire	12 V		M9BV	M9B	F7BV	J79	●	●	●	○	—	○		
				3-wire (NPN)	5 V, 12 V		—	H7C	J79C	—	●	—	●	●	●	—		
				3-wire (PNP)	5 V, 12 V		M9NWV	M9NW	F7NWV	F79W	●	●	●	○	—	○		
			2-wire	12 V	M9PWV	M9PW	—	F7PW	●	●	●	○	—	○				
	Water resistant (2-color indicator)	Grommet	3-wire (NPN)	5 V, 12 V	M9BWV	M9BW	F7BWV	J79W	●	●	●	○	—	○	—			
			3-wire (PNP)	5 V, 12 V	M9NAV*1	M9NA*1	—	—	○	○	●	○	—	○	—			
	With diagnostic output (2-color indicator)	Grommet	2-wire	12 V	M9PAV*1	M9PA*1	—	—	○	○	●	○	—	○	—			
4-wire (NPN)			5 V, 12 V	M9BAV*1	M9BA*1	F7BAV*1	F7BA*1	○	○	●	○	—	○	—				
Reed auto switch	—	Grommet	Yes	3-wire (NPN equivalent)	5 V	—	A96V	A96	—	A76H	●	—	●	—	—	—	—	
				—			200 V	—	—	A72	A72H	●	—	●	—	—	—	—
		Connector	No	2-wire	12 V	100 V or less	A93V*2	A93	A73*2	A73H*2	●	●	●	●	—	—	—	
						—	—	C73C	A73C	—	●	—	●	●	●	—	—	
	Diagnostic indication (2-color indicator)	Grommet	Yes	2-wire	24 V	24 V or less	—	C80C	A80C	—	—	●	—	●	●	●	—	—
						—	—	—	—	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 3 m..... L (Example) M9NWL None..... N (Example) H7CN
1 m..... M (Example) M9NWM 5 m..... Z (Example) M9NWZ

* 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.)

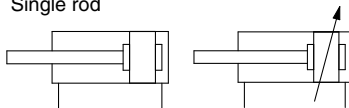
C75 Series



Symbol

Double acting,
Single rod

Air cushion



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
-XB6	Heat resistant cylinder (−10 to 150°C)*1
-XB7	Cold resistant cylinder (−40 to 70°C)*1
-XB9	Low speed cylinder (10 to 50 mm/s)*1
-XC4	With heavy duty scraper*1
-XC6□	Made of stainless steel

*1 Rubber bumper only

Specifications

Bore size [mm]		32	40
Type		Pneumatic	
Action		Double acting, Single rod	
Fluid		Air	
Proof pressure		1.5 MPa	
Max. operating pressure		1.0 MPa	
Min. operating pressure	Rubber bumper	0.05 MPa	
	Air cushion	0.05 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 1500 mm/s	
Cushion		Rubber bumper Air cushion	
Allowable kinetic energy	Rubber bumper	0.65 J	1.2 J
	Air cushion	1.07 J	2.35 J

Standard Strokes

Bore size [mm]	Standard stroke [mm]*1*3	Max. stroke*2 [mm]
32	10, 25, 40, 50, 80, 100, 125, 160, 200, 250, 300	1000
40		

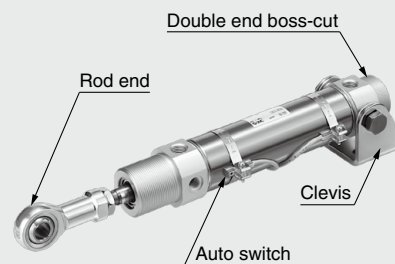
*1 Other strokes are available on request.

*2 For exceeding the standard stroke range, it will be available as a special order (-X2018).

*3 The minimum stroke with air cushion is 25 mm.

Option: Ordering Example of Cylinder Assembly

Cylinder model: CD75E40-50NV-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.

⚠ Precautions

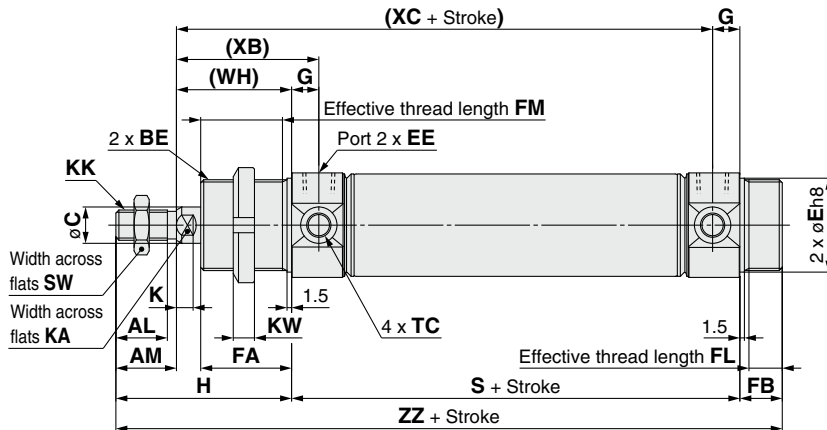
Be sure to read this before handling the products. Refer to the back cover for safety instructions. For actuator and auto switch precautions, refer to the “Handling Precautions for SMC Products” and the “Operation Manual” on the SMC website: <http://www.smcworld.com>

C75 Series

Dimensions

Double end boss-cut

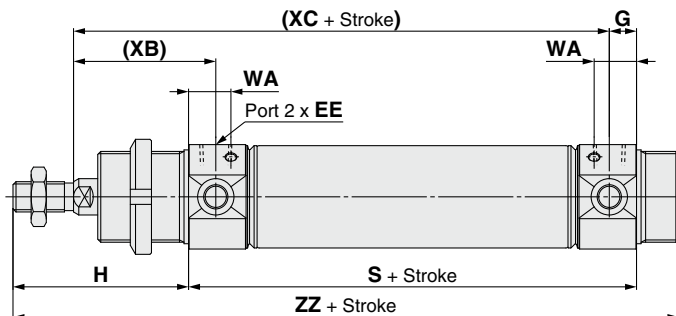
Rubber bumper: C□75E Bore size – Stroke – □



Rail mounting (A)

Band mounting (B)
Without magnet

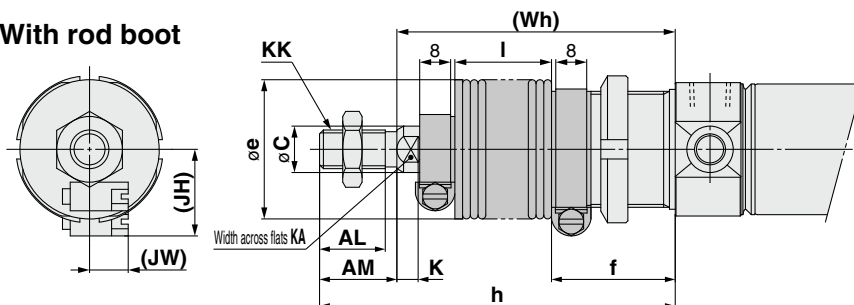
Air cushion: C□75E Bore size – Stroke C – □



Rail mounting (A)

Band mounting (B)
Without magnet

With rod boot



Dimensions

[mm]

Bore size	AL	AM	BE	C	D	E	EE	FA	FB	FM	FL	G	H	(HR)	K	KA	KK	KV
32	17	20	M30 x 1.5	12	37.5	30	G1/8	30	14	27	11	9	58	23.8	5.5	10	M10 x 1.5	38
40	21	24	M38 x 1.5	14	46.5	38	G1/4	35	16	32	13	12	69	28.3	7	12	M12 x 1.75	50

Bore size	KW	NB	S	SW	TC	TD	TW	WA	(WH)	(XB)	(XC)	ZZ
32	7	34.5	68	17	M8 x 1	12 ^{+0.08} ₀	33.1	14	38	47	97	140
40	8	42.5	89	19	M10 x 1	14 ^{+0.08} ₀	39.5	20	45	57	122	174

With Rod Boot

[mm]

Bore size	Item Stroke	AL	AM	C	e	f	K	KA	KK	h						
										1 to 50	51 to 100	101 to 150	151 to 200	201 to 300	301 to 400	401 to 500
32		17	20	12	36	32	5.5	10	M10 x 1.5	77	90	102	115	140	165	190
40		21	24	14	46	37	7	12	M12 x 1.75	88	101	113	126	151	176	201

Bore size	Item Stroke	I							(JH)	(JW)	(Wh)						
		1 to 50	51 to 100	101 to 150	151 to 200	201 to 300	301 to 400	401 to 500	Reference	Reference	1 to 50	51 to 100	101 to 150	151 to 200	201 to 300	301 to 400	401 to 500
32		12.5	25	37.5	50	75	100	125	23.5	10.5	57	70	82	95	120	145	170
40		12.5	25	37.5	50	75	100	125	27	10.5	64	77	89	102	127	152	177

Refer to page 63 of Standard Type Single Rod for details of accessories (rod end, floating joint).