Air Cylinder: Standard Type
Double Acting, Single Rod
Series CJ2
ø6, ø10, ø16

How to Order

Bore size

6	6 mm
10	10 mm
16	16 mm

Mounting style

B	Basic style
L	Axial foot style
F	Rod side flange style
D	Double clevis style (Except ø6)

Cylinder standard stroke (mm)
Refer to the standard stroke table on page 43.

Cushion

Nil	Rubber bumper
A	Air cushion (Except ø6)

Built-in Magnet Cylinder Model
Suffix the symbol "-A" (Rail mounting style) or "-B" (Band mounting style) to the end of part number for cylinder with auto switch.

Example	Rail mounting style	CDJ2B10-45-A
	Band mounting style	CDJ2B16-60-B

* For rail mounting style, screws and nuts for 2 pcs switches come with the rail.
* Refer to page 123 for switch mounting brackets.

	CJ2	L	16	–	60	A		–			
With auto switch	CDJ2	L	16	–	60	A		–	M9BW		–

With auto switch
(Built-in magnet)

Band mounting style

Head cover port location

Symbol \ Bore size (mm)	ø6	ø10, ø16
Nil	—	Perpendicular to axis
R	Axial	Axial

* For configuration, refer to page 43.
* Double clevis is only available for being perpendicular to axis.

Auto switch
* For the applicable auto switch model, refer to the table below.
* If a built-in magnet cylinder without an auto switch is required, refer to the model of built-in magnet cylinder.

Number of auto switches

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

Made to Order
Refer to page 43 for details.

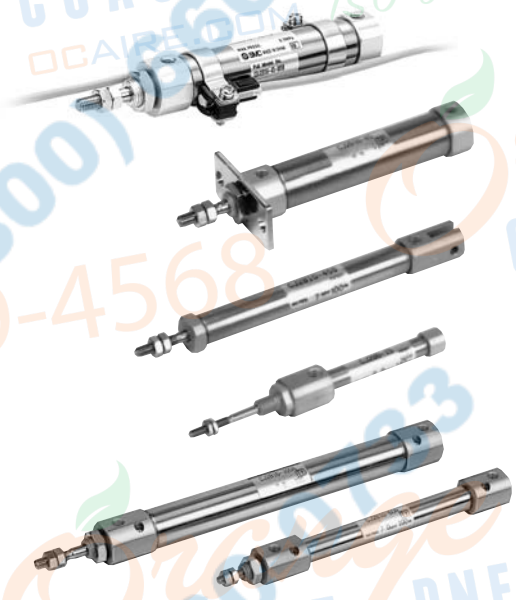
Applicable Auto Switch/Refer to pages 1263 to 1371 for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage DC	Load voltage AC	Auto switch model: Band mounting (ø6, ø10, ø16)	Auto switch model: Rail mounting (ø10, ø16) Perpendicular	Auto switch model: Rail mounting (ø10, ø16) In-line	Lead wire length (m) 0.5 (Nil)	1 (M)	3 (L)	5 (Z)	None (N)	Pre-wired connector	Applicable load	
Solid state switch	—	Grommet	Yes	3-wire (NPN)	5 V, 12 V	—	M9N	—	—	●	●	●	○	—	○	IC circuit	Relay, PLC
				3-wire (PNP)			—	F7NV	F79	●	—	●	○	—	○		
							M9P	—	—	●	●	●	○	—	○		
							—	F7PV	F7P	●	—	●	○	—	○		
				2-wire	12 V		M9B	—	—	●	●	●	○	—	○	—	
		Connector					—	F7BV	J79	●	—	●	○	—	○		
							H7C	J79C	—	●	—	●	●	●	—		
	Diagnostic indication (2-color indication)	Grommet		3-wire (NPN)	5 V, 12 V		M9NW	—	—	●	●	●	○	—	○	IC circuit	
							—	F7NWV	F79W	●	—	●	○	—	○		
				3-wire (PNP)			M9PW	—	—	●	●	●	○	—	○		
							—	—	F7PW	●	—	●	○	—	○		
				2-wire	12 V		M9BW	—	—	●	●	●	○	—	○	—	
							—	F7BWV	J79W	●	—	●	○	—	○		
	Water resistant (2-color indication)						H7BA	F7BAV	F7BA	—	—	●	○	—	○		
	With diagnostic output (2-color indication)			4-wire (NPN)	5 V, 12 V		H7NF	—	F79F	●	—	●	○	—	○	IC circuit	
Reed switch	—	Grommet	Yes	3-wire (NPN equivalent)	5 V	—	A96	—	A76H	●	—	●	—	—	—	IC circuit	—
				2-wire	—	200 V	—	A72	A72H	●	—	●	—	—	—	—	Relay, PLC
					12 V	100 V	—	A73	A73H	●	—	●	●	—	—		
							A93	—	—	●	—	●	—	—	—		
			No		24 V	100 V or less	A90	A80	A80H	●	—	●	—	—	—	IC circuit	
		Connector	Yes			—	C73C	A73C	—	●	—	●	●	●	—	—	
			No			24 V or less	C80C	A80C	—	●	—	●	●	●	—	IC circuit	
	Diagnostic indication (2-color indication)	Grommet	Yes		—	—	—	A79W **	—	●	—	●	—	—	—	—	

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

* Since there are other applicable auto switches than listed, refer to page 123 for details.
* For details about auto switches with pre-wired connector, refer to pages 1328 and 1329.
* Band mounting style is not available for D-A9□V/M9□V/M9□WV and D-M9□A(V)L types.
** "D-A79W" cannot be mounted on bore size ø10 cylinder with air cushion.

* Solid state auto switches marked with "○" are produced upon receipt of order.
* D-A9□/M9□/M9□W/A7□□/A80□/F7□□/J7□□ auto switches are shipped together (not assembled). (However, when D-A9□/M9□/M9□W types are selected, only auto switch mounting brackets are assembled before being shipped.)
* When D-A9□(V)/M9□(V)/M9□W(V) types are mounted on a ø10 or ø16 rail, order auto switch mounting brackets separately. Refer to page 123 for details.



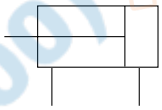
Specifications

Bore size (mm)		6	10	16
Action		Double acting, Single rod		
Fluid		Air		
Proof pressure		1 MPa		
Maximum operating pressure		0.7 MPa		
Minimum operating pressure	Rubber bumper	0.12 MPa	0.06 MPa	
	Air cushion	—	0.1 MPa	
Ambient and fluid temperature		Without auto switch: −10°C to 70°C, With auto switch: −10°C to 60°C *		
Cushion		Rubber bumper/Air cushion		
Lubrication		Not required (Non-lube)		
Stroke length tolerance		$^{+1.0}_{0}$		
Piston speed	Rubber bumper	50 to 750 mm/s		
	Air cushion	50 to 1000 mm/s		
Allowable kinetic energy	Rubber bumper	0.012J	0.035J	0.090J
	Air cushion (Effective cushion length)	—	0.07J (9.4 mm)	0.18J (9.4 mm)

* No freezing

JIS Symbol

Double acting, Single rod



Standard Stroke

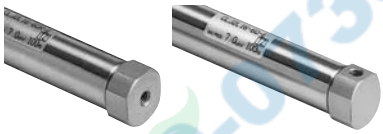
(mm)

Bore size	Standard stroke
6	15, 30, 45, 60
10	15, 30, 45, 60, 75, 100, 125, 150
16	15, 30, 45, 60, 75, 100, 125, 150, 175, 200

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

Head Cover Port Location

Either perpendicular to the cylinder axis or in-line with the cylinder axis is available for basic style. (ø6 is available only as in-line style.)



Axial **Perpendicular**

Refer to pages 117 to 123 for cylinders with auto switches.

- Minimum stroke for auto switch mounting
- Proper auto switch mounting position (detection at stroke end) and mounting height
- Operating range
- Switch mounting bracket part no.

Made to Order Specifications

(For details, refer to pages 1373 to 1498.)

Symbol	Specifications
—XA□	Change of rod end shape
—XB6	Heat resistant cylinder (150°C) * Not available with switch & with air cushion
—XB7	Cold resistant cylinder * Not available with switch & with air cushion
—XB9	Low speed cylinder (10 to 50 mm/s) * Not available with air cushion
—XB13	Low speed cylinder (5 to 50 mm/s) * Not available with air cushion
—XC3	Special port location * Not available with air cushion
—XC8	Adjustable stroke cylinder/Adjustable extension type
—XC9	Adjustable stroke cylinder/Adjustable retraction type
—XC10	Dual stroke cylinder/Double rod type
—XC11	Dual stroke cylinder/Single rod type
—XC22	Fluororubber seals * Not available with air cushion
—XC51	With hose nipple