

Direct Mount: Single Acting Spring Return/Extend

Series CJ2R

ø10, ø16

How to Order

Standard
CJ2RA 16-45 S

With auto switch
CDJ2RA 16-45 S C73

Bore size

10	10mm
16	16mm

Standard stroke (mm)

ø10	15, 30, 45, 60
ø16	15, 30, 45, 60, 75, 100, 125, 150

Mounting

A	Bottom mounting
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Action

S	Single acting/Spring Return
T	Single acting/Spring Extend

Port location on head cover

Symbol	Port location
—	Perpendicular
R	In-line

* Refer to p.1.3-58 for the configuration.
* Not applicable to single acting/spring extend style (T).

Number of switches

—	2
S	1
n	n

Auto switch

* Refer to the table below for selecting applicable auto switches.
* If requiring a built-in magnet cylinder without an auto switch, refer to the model number example below.

- CJ1
- CJP
- CJ2**
- CM2
- C85
- CG1
- MB
- C95
- CA1
- CS1

Applicable Auto Switches/Refer to p.5.3-2 for further information on auto switch.

Style	Special function	Electrical entry	Indicator	Wiring (Output)	Load voltage		Auto switch model		Lead wire* (m)				Applicable load												
					DC	AC	Band	Rail		0.5 (-)	3 (L)	5 (Z)	None (N)	IC	PLC										
								Perp.	In-line																
Reed switch	—	Grommet	Yes	3 wire (NPN)	—	5V	—	C76	—	A76H	●	●	—	—	IC	—									
											2 wire	24V	—	—			200V	—	A72	A72H	●	●	—	—	
													12V	100V			C73	A73	A73H	●	●	●	—		
												Connector	No	5V, 12V			≤100V	C80	A80	A80H	●	●	—	—	IC
														12V			—	C73C	A73C	—	●	●	●	●	—
											Diagnostic indication (2 color)	Grommet	Yes	—			—	—	—	—	A79W	—	—	●	●
5V, 12V	≤24V	C80C	A80C	—	●	●	●	●	—	IC															
Solid state switch	—	Grommet	Yes	3 wire (NPN)	5V, 12V	—	H7A1	F7NV	F79	●	●	○	—	IC	—										
										3 wire (PNP)	12V	—	H7B			F7BV	J79	●	●	○	—				
																		Connector	No	—	H7C	J79C	—	●	●
										3 wire (NPN)	5V, 12V	—	H7NW			F7NWV	F79W							●	●
																		3 wire (PNP)	12V	—	H7PW	—	F7PW	●	●
										Water resistant (2 color)	Grommet	Yes	2 wire			12V	—							H7BW	H7BWV
	With timer	—	—	—	—	F7NT	—	●	○					—											
							With diagnostic output (2 color)	—	5V, 12V	—	—	—	H7NF	—	F79F	●	●	○	—						
	Latch with diagnostic output (2 color)	—	—	—	—	—										H7LF	—	F7LF	●	●	○	—			

* Lead wire length 0.5m..... e.g.) C73C 5m.....Z e.g.) C73CZ
3m.....L C73CL None.....N C73CN

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

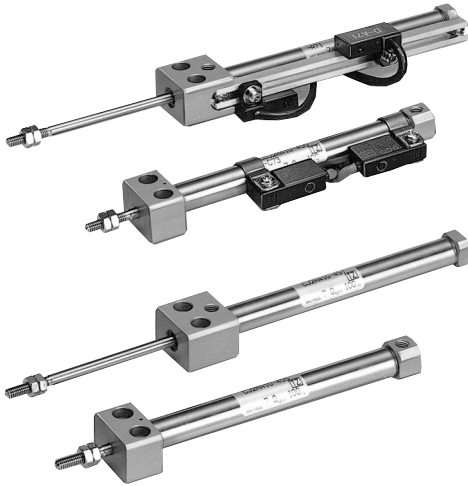
Part No. of Cylinder with Built-in Magnet

Symbol "-A" (rail mounting) or "-B" (band mounting) should be suffixed to the part No. of the cylinder with auto switch.

Ex.	Rail mounting	CDJ2RA16-60S-A
	Band mounting	CDJ2RA10-45S-B

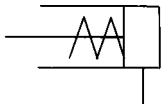
Series CJ2R

Square rod cover makes direct contact mounting possible.

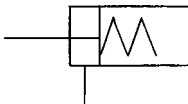


JIS symbol

Single acting/
Spring return



Single acting/
Spring extend



⚠ Precautions

Refer to p.1.3-21 before handling.

Specifications

Action	Single acting/Spring return	Single acting/Spring extend
Fluid	Air	
Proof pressure	1.05MPa	
Max. operating pressure	0.7MPa	
Min. operating pressure	0.15MPa	
Ambient and fluid temperature	Without auto switch: -10°C to 70°C, With auto switch: -10°C to 60°C*	
Cushion	Rubber bumper	
Lubrication	Non-lube	
Thread tolerance	JIS class 2	
Stroke tolerance	+1.0 0	
Bore size (mm)	ø10, ø16	
Mounting	Bottom mounting	
Piston speed	50 to 750mm/s	
Allowable kinetic energy	ø10	0.035J
	ø16	0.090J

* No freezing

Standard Stroke

Bore size	Standard stroke (mm)
10	15, 30, 45, 60
16	15, 30, 45, 60, 75, 100, 125, 150

Minimum Stokes for Auto Switch Mounting

•Refer to p.1.3-57.

Accessory/Refer to p.1.3-12 for details.

Standard	Rod end nut
Option	Single knuckle joint, Double knuckle joint*

* Double knuckle joint is packaged with pins and rings.

Auto Switch Mounting Bracket Part No. (Band mounting)

Bore size (mm)	Bracket part No.	Note
10	BJ2-010	Common use to all of D-C7, C8 and D-H7
16	BJ2-016	



Note) A set of stainless steel mounting screws "BBA4" is attached. (A switch mounting band is not attached. Please order the band separately.) "BBA4" screws are used for D-C7/C8/H7. "D-H7BAL" switch is set on the cylinder with the screws above when shipped. Also, when a switch only is shipped, "BBA4" screws are attached.

Spring Force

Bore size (mm)	Spring Force (N)	
	Retracted side	Extended side
10	6.86	3.53
16	14.2	6.86

Direct Mount: Single Acting Spring Return/Extend *Series CJ2R*

Weight

Spring Return

Bore size (mm)		ø10	ø16
Weight*	15 Stroke	38	73
	30 Stroke	45	90
	45 Stroke	54	112
	60 Stroke	63	134
	75 Stroke	—	155
	100 Stroke	—	198
	125 Stroke	—	234
	150 Stroke	—	260

* This weight includes weight of rod end nut.

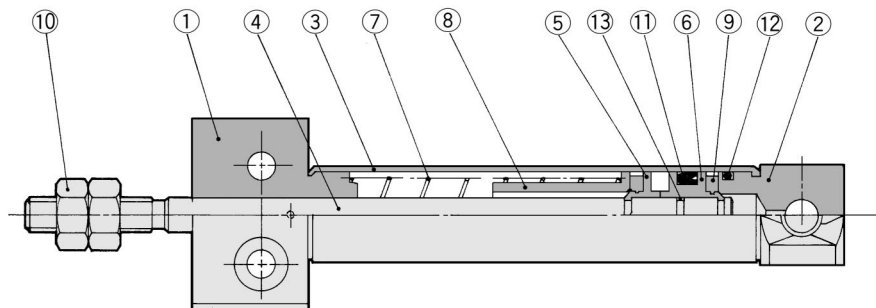
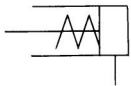
Spring Extend

Bore size (mm)		ø10	ø16
Weight*	15 Stroke	44	78
	30 Stroke	50	94
	45 Stroke	59	114
	60 Stroke	67	135
	75 Stroke	—	154
	100 Stroke	—	192
	125 Stroke	—	226
	150 Stroke	—	250

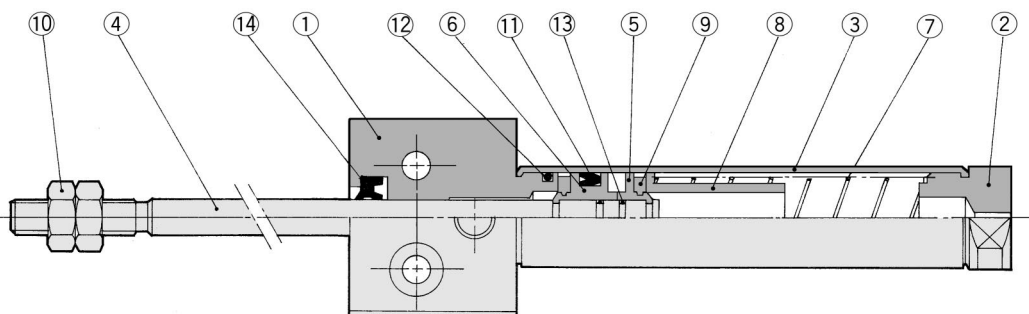
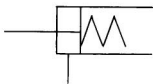
* This weight includes weight of rod end nut.

Construction (The cylinder cannot be disassembled.)

CJ2RA□-□S



CJ2RA□-□T



Component Parts

No.	Description	Material	Note
①	Rod cover	Aluminum alloy	White anodized
②	Head cover	Aluminum alloy	White anodized
③	Cylinder tube	Stainless steel	
④	Piston rod	Stainless steel	
⑤	Piston A	Brass	
⑥	Piston B	Brass	
⑦	Return spring	Piano wire	

No.	Description	Material	Note
⑧	Spring seat	Brass	
⑨	Bumper	Urethane	
⑩	Rod end nut	Rolled steel	Nickel plated
⑪	Piston seal	NBR	
⑫	Tube gasket	NBR	
⑬	Piston gasket	NBR	
⑭	Rod seal	NBR	

CJ1

CJP

CJ2

CM2

C85

CG1

MB

C95

CA1

CS1

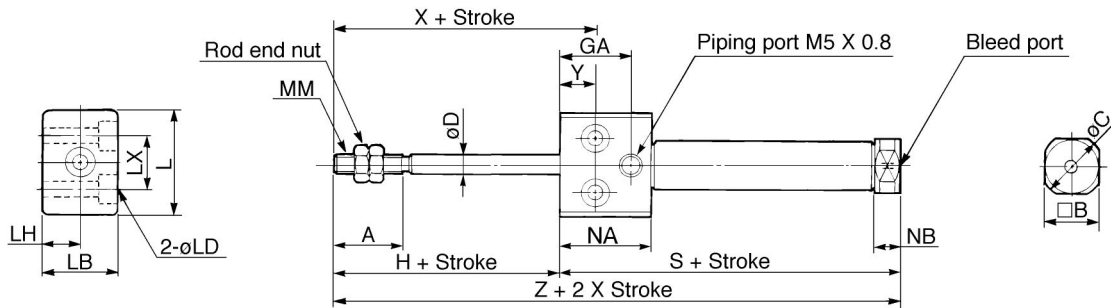
Series CJ2R

Single Acting/Bottom Mounting

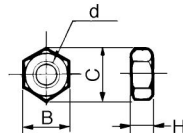
Spring return/CJ2RA **Bore size** **Stroke** **S** **Port location on head cover**



Spring extend/CJ2RA **Bore size** **Stroke** **T**



Rod end nut



Material: Iron

Part No.	Bore	B	C	d	H
NTJ-010A	10	7	8.1	M4 X 0.7	3.2
NTJ-015A	16	8	9.2	M5 X 0.8	4

Bore	A	B	C	D	GB	H	L	LB	LD	LH	LX	MM	NA	NB	X	Y
10	15	12	14	4	5	20	23	16	ø3.5, ø6.5 Depth of counter bore: 4	8	12	M4 X 0.7	13.5	9.5	28	8
16	15	18	20	5	5	20	26	20	ø4.5, ø8 Depth of counter bore: 5	10	16	M5 X 0.8	13.5	9.5	28	8

Dimensions by stroke/Spring return

Symbol Stroke	S								Z							
	5 to 15	16 to 30	31 to 45	46 to 60	61 to 75	76 to 100	101 to 125	126 to 150	5 to 15	16 to 30	31 to 45	46 to 60	61 to 75	76 to 100	101 to 125	126 to 150
10	53.5	61	73	85	—	—	—	—	73.5	81	93	105	—	—	—	—
16	53.5	62	74	86	92	116	134	146	73.5	82	94	106	112	136	154	166

Dimensions by stroke/Spring extend (Dimensions not mentioned in the below table are the same as the above table.)

Bore	GA	NA	NB	S								Z							
				5 to 15	16 to 30	31 to 45	46 to 60	61 to 75	76 to 100	101 to 125	126 to 150	5 to 15	16 to 30	31 to 45	46 to 60	61 to 75	76 to 100	101 to 125	126 to 150
10	16	20.5	5.5	56.5	64	76	88	—	—	—	—	76.5	84	96	108	—	—	—	—
16	16	20.5	5.5	56.5	65	77	89	95	119	137	149	76.5	85	97	109	115	139	157	169