

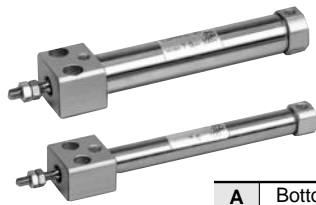
Direct Mount: Double Acting Single Rod

Series CJ2R



ø10, ø16

How to Order



Bore size	
10	10mm
16	16mm

Mounting	
A	Bottom mounting

Standard stroke (mm)

ø10	15, 30, 45, 60, 75, 100, 125, 150
ø16	15, 30, 45, 60, 75, 100, 125, 150, 175, 200

Standard

CJ2RA 16 60

With auto switch

CDJ2RA 16 60 C73

With auto switch
(Built-in magnet)

Port location on head cover

Symbol	Port location
—	Perpendicular
R	In-line

* Refer to p.1.3-58 for the configuration.

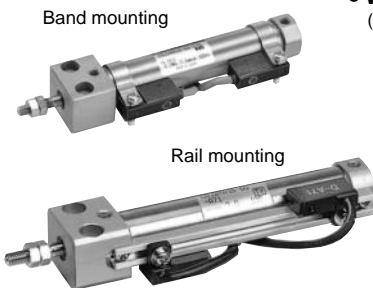
Auto switch

* 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.

Number of switches

—	2
S	1
n	n



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)													
Reed switch	—	Grommet	Yes	3 wire (NPN)	—	5V	—	C76	—	A76H	●	●	—	—	IC												
											24V	—	A72	A72H		●	●	—	—								
																12V	100V	C73	A73	A73H	●	●	●	—			
																					5V, 12V	≤100V	C80	A80	A80H	●	●
																12V	—	C73C	A73C	—						●	●
																					5V, 12V	≤24V	C80C	A80C	—	●	●
Grommet	Yes	—	A79W	—	●	●	—	—																			
					Solid state switch	—	Grommet	Yes	3 wire (NPN)	5V, 12V	—	H7A1	F7NV	F79	●	●	○	—	IC								
3 wire (PNP)	—	H7A2	F7PV	F7P											●	●	○	—									
															2 wire	12V	—	H7B		F7BV	J79	●	●	○	—		
																						H7C	J79C	—	●	●	●
															Connector	Yes	24V	5V, 12V		—	H7NW			F7NWV	F79W	●	●
																						3 wire (NPN)	—			H7PW	—
							3 wire (PNP)	—	H7BW	H7BWV	J79W	●	●	○					—								
2 wire	12V	—	H7BA	—								F7BA	—	●					○			—					
							3 wire (NPN)	5V, 12V	—	—	F7NT		—	●					○			—					
Grommet	Yes	—	H7NF	—								F79F	●	●					○			—					
							4 wire (NPN)	—	—	H7LF	—		F7LF	●	●	○	—										

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.

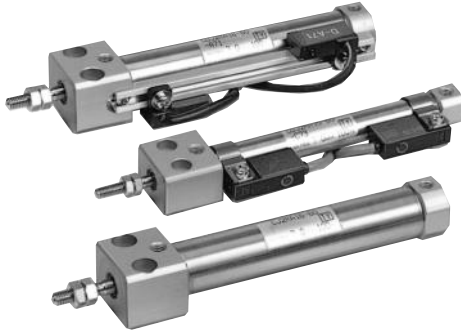
Ex.	Mounting	Part No.
	Rail mounting	CDJ2RA16-60-A
	Band mounting	CDJ2RA10-45-B

* 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.

Direct Mount: Double Acting Single Rod *Series CJ2R*

Square rod cover makes direct contact mounting possible.



Specifications

Action	Double acting/Single rod	
Fluid	Air	
Proof pressure	1.05MPa	
Max. operating pressure	0.7MPa	
Min. operating pressure	0.06MPa	
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

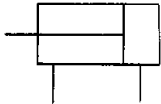
* No freezing

Standard Stroke

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

JIS symbol

Double acting/Single rod



⚠ Precautions

Refer to p.1.3-3 before handling.

Minimum Strokes for Auto Switches Mounting

Mounting	Auto switch model	Number of switches	Min. stroke (mm)
Band mounting	D-C7 D-C8	2 (same surface)	50
		2 (different surfaces)	15
		1	15
	D-H7□ D-H7□W D-H7BAL D-H7NF	2 (same surface)	60
		2 (different surfaces)	20
		1	20
		D-C73C D-C80C D-H7C	2 (same surface)
	2 (different surfaces)		15
	1		15
	D-H7LF	2 (same surface)	65
		2 (different surfaces)	25
		1	25
Rail mounting	D-A7/A8 D-A73C/A80C	2	10
		1	5
	D-F7□V D-J79C	2	5
		1	5
	D-A79W D-F7□WV	2	15
		1	10
	D-F7□, J79, D-F79F, D-A7□H, A80H D-F7□W, J79W D-F7BAL	2	15
		1	15
	D-F7LF	2	25
1		25	

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.

CJ1

CJP

CJ2

CM2

C85

CG1

MB

C95

CA1

CS1

Series CJ2R

Weight

Bore size (mm)	10	16
Basic weight*	36	71.5
Additional weight for each 15 of stroke	4	6.5

* This basic weight includes weights of rod end nut.

Calculation example) CJ2RA10-45

- Basic weight: 36 (ø10)
- Additional weight: 4/15 stroke
- Cylinder stroke: 45 stroke
36+4/15 X 45=48g

Port Location on the Head Cover

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.)



In-line



Perpendicular

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.

Clean Series

10-CJ2RA **Mounting** **Bore size** **Stroke** **Port location on head cover**

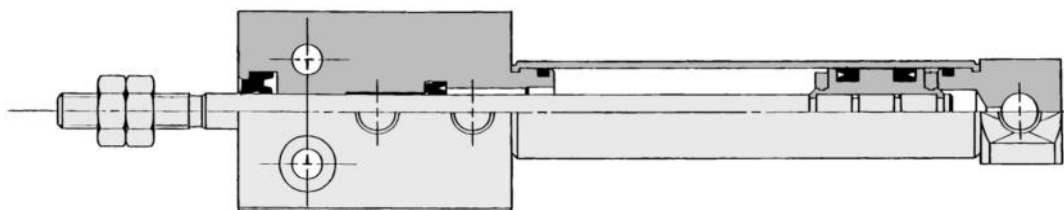
Clean series

The rod section of actuator is reinforced with the double-seal structure. The air cylinder can be incorporated in the system which directly discharges the external leak from the clean room through the relief port.

Specifications

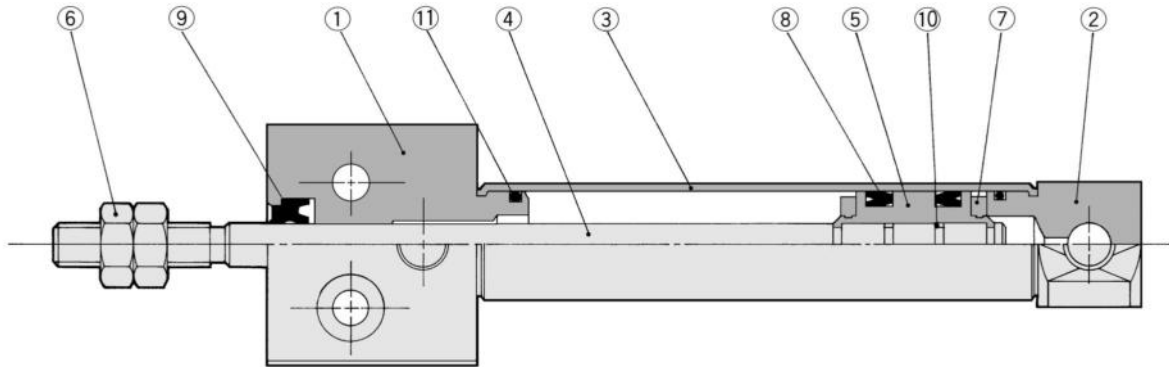
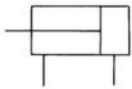
Action	Double acting/Single rod
Bore size (mm)	ø10, ø16
Max. operating pressure	0.7MPa
Min. operating pressure	0.08MPa
Cushion	Rubber bumper
Standard stroke (mm)	Same as the standard (Refer to p.1.3-57.)
Auto switch	Possible to be mounted
Mounting	Rear pivot mounting

Construction



Direct Mount: Double Acting Single Rod *Series CJ2R*

Construction (The cylinder cannot be disassembled.)



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

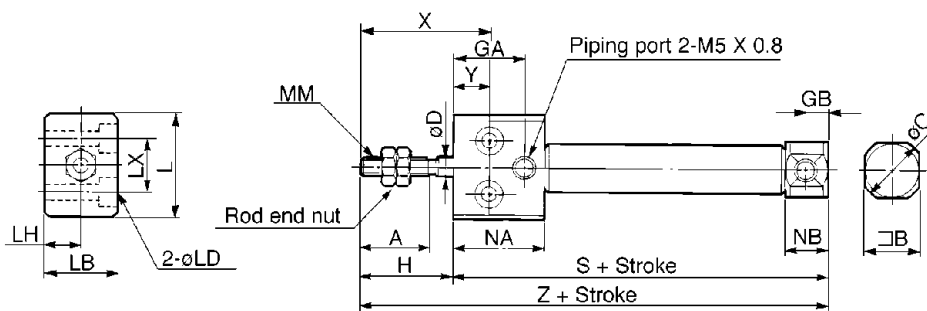
Component Parts

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	Brass	
⑥	Rod end nut	Rolled steel	Nickel plated

No.	Description	Material	Note
⑦	Bumper	Urethane	
⑧	Piston seal	NBR	
⑨	Rod seal	NBR	
⑩	Piston gasket	NBR	
⑪	Tube gasket	NBR	

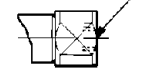
Bottom Mounting

CJ2RA **Bore size** **Stroke** **Port location on head cover**

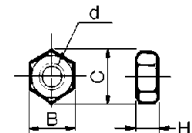


Port location on head cover: In-line (R)

Piping port M5 X 0.8



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	GA	GB	H	L	LB	LD	LH	LX	MM	NA	NB	X	Y	S	Z
10	15	12	14	4	16	5	20	23	16	ø3.5, ø6.5 Depth of counter bore: 4	8	12	M4 X 0.7	20.5	9.5	28	8	54	74
16	15	18	20	5	16	5	20	26	20	ø4.5, ø8 Depth of counter bore: 5	10	16	M5 X 0.8	20.5	9.5	28	8	55	75



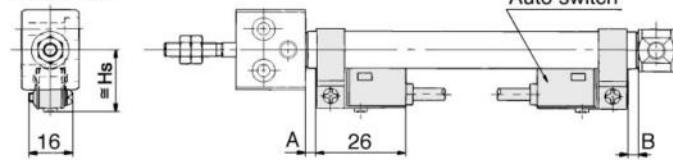
Rear pivot
 CJ2RA10 SCJ210, #10
 CJ2RA16 SCJ216, #10

* The data shows auto switch styles.
 Please delete the unnecessary parts.

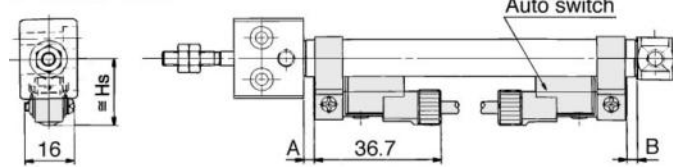
Series CDJ2R

Auto Switch Mounting Position

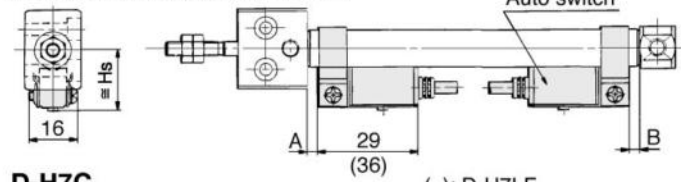
Reed Switch <Band mounting> D-C7/C8



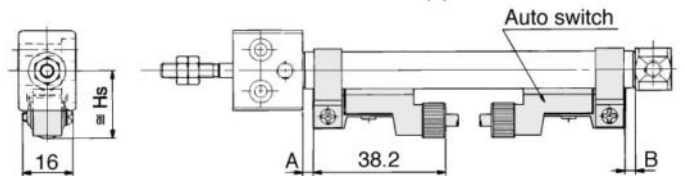
D-C73C/C80C



Solid State Switch <Band mounting> D-H7□/H7□W/H7BAL/H7□F

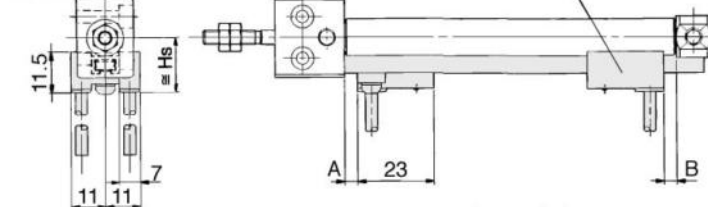


D-H7C

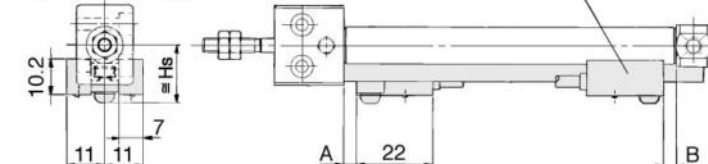


(): D-H7LF

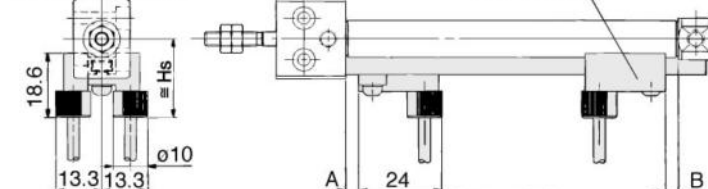
<Rail mounting> D-A7/A8



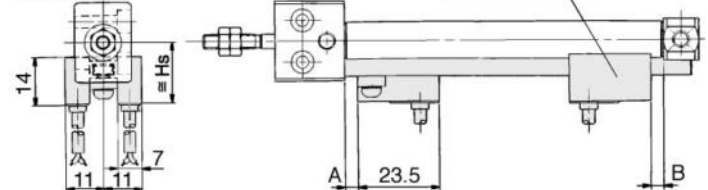
D-A7□H/A80H



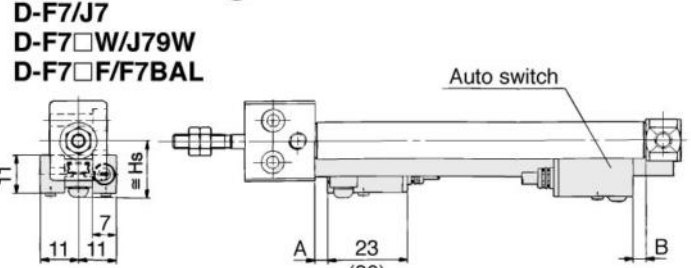
D-A73C/A80C



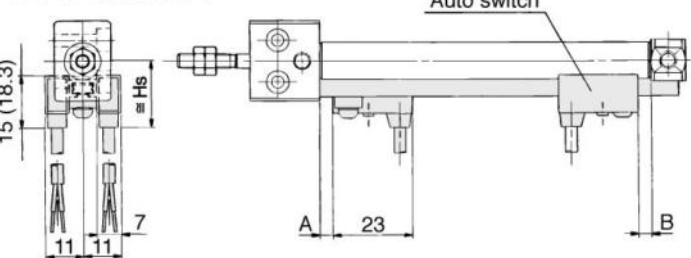
D-A79W



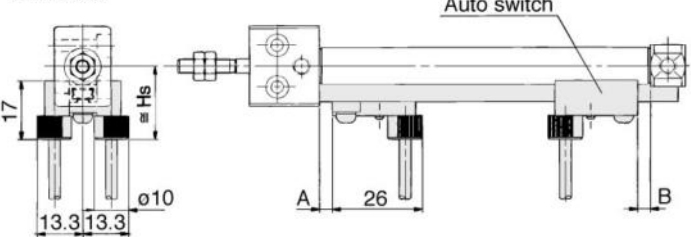
<Rail mounting> D-F7/J7



D-F7□V/F7□WV



D-J79C



Auto Switch Mounting Position

Auto switch model	D-C7 D-C8 D-C73C D-C80C		D-H7□ D-H7C		D-H7□W D-H7BAL D-H7□F		D-A7 D-A8		D-A7□H/A80H D-A73C/A80C D-F7/J7 D-J79C D-F7□V		D-F7□W D-F7BAL D-F7□F D-J79W D-F7□WV		D-A79W	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B
Bore size 10	2.5	2.5	1.5	1.5	0	0	3	3	3.5	3.5	7.5	7.5	0.5	0.5
Bore size 16	3	3	2	2	0.5	0.5	3.5	3.5	4	4	8	8	1	1

Auto Switch Mounting Height

Auto switch model	D-C7/C8 D-H7□/H7□W D-H7□F D-H7BAL	D-C73C D-C80C	D-H7C	D-A7 D-A8	D-A7□H/A80H D-F7/J7 D-F7□W/J79W D-F7BAL/F7□F	D-A73C D-A80C	D-F7□V D-F7□WV	D-J79C	D-A79W
Bore size	Hs	Hs	Hs	Hs	Hs	Hs	Hs	Hs	Hs
10	17	19.5	20	16.5	17.5	23.5	20	23	19
16	20.5	23	23.5	19.5	20.5	26.5	23	26	22