

Pin Cylinder: Double Acting, Single Rod

Series CJP2

ø4, ø6, ø10, ø16

How to Order

Standard CJP2 **F** **10** - **15** **D** - **□** - **□**

Built-in magnet CDJP2 **F** **10** - **15** **D** - **□** - **M9BW** **S** - **□**

With auto switch
(Built-in magnet)

Mounting

Symbol	Mounting	Standard	Built-in magnet
B	Basic	●	●
F	Flange	●	●
L	Foot	●	●
D	Clevis	●	●
T	Trunnion	●	●

* Bore size of 4 mm is available with basic mounting only.
* Mounting bracket is shipped together (but not assembled).

Bore size

Symbol	Bore size
4	4 mm
6	6 mm
10	10 mm
16	16 mm

Cylinder standard stroke (mm)

Symbol	Stroke (mm)
ø4	5, 10, 15, (20) Note
ø6	5, 10, 15, 20, 25
ø10, ø16	5, 10, 15, 20, 25, 30, 35, 40

Note) A stroke of 20 is available with a standard product only.

Double acting

Auto switch

Symbol	Auto switch
Nil	Without auto switch
S	1 pc.
2	2 pcs.

* For the applicable auto switch model, refer to the below table.

Rod end thread

Symbol	Rod end thread
Nil	With thread
B	Without thread

Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.
(Example) CDJP2B6-20

CJ1

CJP

CJ2

CM2

CG1

MB

MB1

CA2

CS1

CS2

Applicable Auto Switches / For detailed auto switch specifications, refer to page 1263 through to 1371.

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	Electrical entry direction		0.5 (Nil)	1 (M)	3 (L)	5 (Z)					
								Perpendicular	In-line									
Solid state switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9NV	M9N	●	●	●	○	○	IC circuit	Relay, PLC		
				3-wire (PNP)				M9PV	M9P	●	●	●	○	○				
	2-wire			M9BV				M9B	●	●	●	○	○	—				
	Diagnostic indication (2-color)			3-wire (NPN)	5 V, 12 V	M9NWW		M9NW	●	●	●	○	○	IC circuit				
				3-wire (PNP)		M9PWW		M9PW	●	●	●	○	○					
				2-wire		M9BWW		M9BW	●	●	●	○	○		—			
Reed switch		—	Grommet	Yes	3-wire (NPN equiv.)	—	5 V	—	A96V**	A96**	●	—	●	—	—	IC circuit	—	
	2-wire				24 V				12 V	100 V	A93V**	A93**	●	—	●	—		—
				5 V, 12 V		100 V or less	A90V**	A90**			●	—	●	—	—	IC circuit		

* Lead wire length symbols: 0.5 m Nil (Example) M9NW
1 m M M9NWM
3 m L M9NWL
5 m Z M9NWZ

* Auto switches marked with "○" are made to order specification.
* For details about auto switches with pre-wired connector, refer to pages 1328 to 1329.
* Auto switches are shipped together, (but not assembled).

** The D-A9□(V) switch is not attachable to ø4.

D-□

-X□

Individual -X□

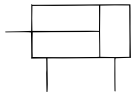
Technical data

Series CJP2



JIS Symbol

Double acting, Single rod



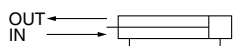
Made to Order

(For details, refer to pages 1373 to 1498 and 1502.)

Symbol	Specifications
XA □	Change of rod end style
XB6	Heat resistant cylinder (150°C)
XB7	Cold resistant cylinder
XC22	Fluororubber seals
X1666	Interchangeability of clevis and trunnion types

Theoretical Output

Bore size (mm)	Operating direction	Operating pressure (MPa)		
		0.3	0.5	0.7
4	IN	2.8	4.7	6.6
	OUT	3.8	6.3	8.8
6	IN	6.4	10.6	14.8
	OUT	8.5	14.1	19.8
10	IN	19.8	33.0	46.2
	OUT	23.6	39.3	55.0
16	IN	51.8	86.4	121.0
	OUT	60.3	100.5	140.7



Specifications

Action	Double acting, Single rod	
Maximum operating pressure	0.7 MPa	
Minimum operating pressure	ø4	0.15 MPa
	ø6	0.12 MPa
	ø10, ø16	0.06 MPa
Proof pressure	1 MPa	
Ambient and fluid temperature	Without auto switch: -10 to 70°C With auto switch: -10 to 60°C (No freezing)	
Lubrication	Not required (Non-lube)	
Stroke length tolerance	+1.0 0	
Rod end style	With thread/Without thread	
Piston speed	10 to 500 mm/s*	
Cushion	Rubber bumper	
Mounting (Note)	Basic, Flange, Foot, Clevis, Trunnion	

Note) Bore size of ø4 is available with basic mounting only. The piston speed for a bore size of ø4 is 50 to 500 mm/s.

Standard Equipment Accessory

Accessory	Mounting nut (1 pc.)	Rod end nut (2 pcs.) (with thread)	Trunnion (with pin)
Basic	●	●	—
Flange	●	●	—
Foot	●	●	—
Clevis	—	●	—
Trunnion	—	●	●

Standard Stroke

Bore size (mm)	Stroke (mm)
4	5, 10, 15, 20 (Note)
6	5, 10, 15, 20, 25
10	5, 10, 15, 20, 25, 30, 35, 40
16	5, 10, 15, 20, 25, 30, 35, 40

* 20 stroke of bore size 4 mm is standard type only.

Option

Bore size (mm)	6	10	16
Description			
Auto switch	D-A9□(V), D-M9□(V), D-M9□W(V)		
Single knuckle joint	I-P006A	I-P010A	I-P016A
Double knuckle joint (with pin)	Y-P006A	Y-P010A	Y-P016A

Mounting Bracket Part No.

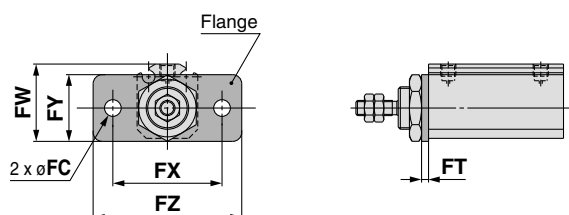
Bore size (mm)	6	10	16
Bracket			
Flange	CP-F006A	CP-F010A	CP-F016A
Foot	CP-L006A	CP-L010A	CP-L016A
Trunnion (with pin)	CP-T006A	CP-T010A	CP-T016A

Mass

Stroke (mm)	Mounting	Bore size (mm)			
		4	6	10	16
Basic mass	5	11	16	27	42
	10	13	18	29	46
	15	15	21	32	50
	20	17	23	35	54
	25	—	25	37	58
	30	—	—	40	63
	35	—	—	43	67
	40	—	—	45	71
Bracket mass	Flange	—	5	6	16
	Foot	—	7	9	24
	Clevis	—	2	5	8
	Trunnion (with pin)	—	15	25	70
Additional mass for built-in magnet		2	3	5	7

Mounting Bracket Dimensions

Flange: C(D)JP2F6 to 16

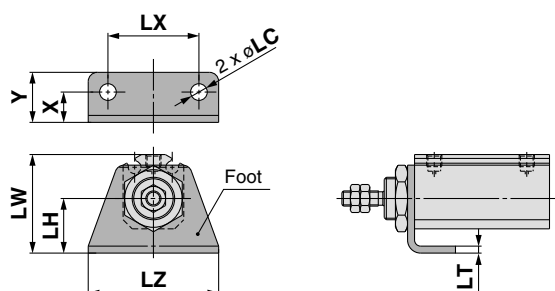


Flange (mm)

Symbol	FC	FT	FW	FX	FY	FZ
Bore size						
6	3.4	1.6	18.5	24	16	32
10	4.5	1.6	21	28	18	37
16	5.5	2.3	25.5	36	22	49

* Other dimensions are the same as basic mounting.

Foot: C(D)JP2L6 to 16

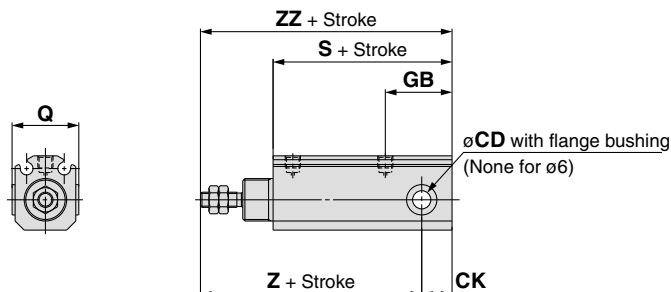


Foot (mm)

Symbol	X	Y	LC	LH	LT	LW	LX	LZ
Bore size								
6	6.5	10.5	3.4	11	1.6	21.5	20	28
10	7	12	4.5	13	1.6	25	24	33
16	10	16.5	5.5	18	2.3	32.5	30	43

* Other dimensions are the same as basic mounting.

Clevis: C(D)JP2D6 to 16

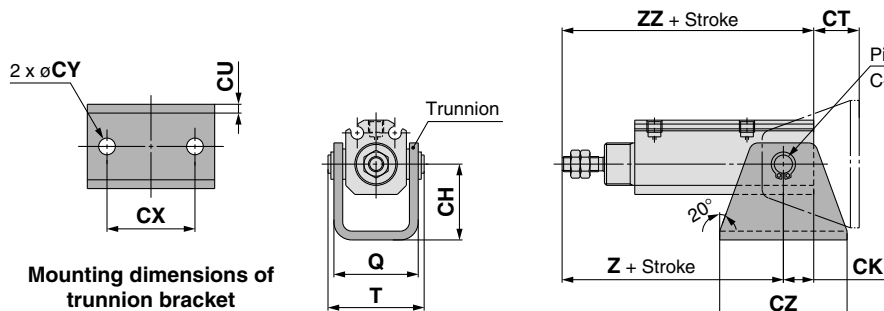


Clevis (mm)

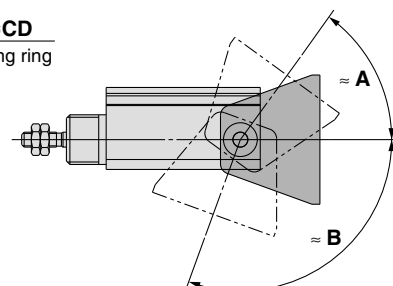
Symbol	CD	CK	GB	Q
Bore size				
6	3 ^{+0.040} ₀	4	11.5	—
10	5 ^{+0.065} ₀	6.5	18	17 ⁰ _{-0.5}
16	6 ^{+0.065} ₀	10	22	22 ⁰ _{-0.5}

Symbol Bore size	S		Z		ZZ	
	Without magnet	Built-in magnet	Without magnet	Built-in magnet	Without magnet	Built-in magnet
6	21	26	34	39	38	43
10	30.5	35.5	44	49	50.5	55.5
16	34	39	48	53	58	63

Trunnion: C(D)JP2T6 to 16



Rotation angle



Trunnion

Trunnion											(mm)			
Symbol Bore size	CD	CH	CK	CT	CU	CX	CY	CZ	Q	T	Z		ZZ	
											Without magnet	Built-in magnet	Without magnet	Built-in magnet
6	3	16	4	12	1.6	18	3.4	26	18.5	20.4	34	39	38	43
10	5	20	6.5	13.5	1.6	24	4.5	33	20.5	23.9	44	49	50.5	55.5
16	6	25	10	15	2.9	29	5.5	42	28	31.7	48	53	58	63

Applicable bore	ø6	ø10	ø16
≈ A	54°	62°	55°
≈ B	110°	110°	102°

* Provided as guidelines.
The values are varied depending on the condition.