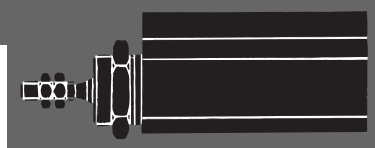


Pin Cylinder

Series CJP

Double Acting/Single Acting Spring Return

Variations

Series	Action		Standard Variation: Built-in Magnet	Bore Size (mm)	Standard Stroke (mm)	Page
Standard Style Series CJP	Double Acting (Non-lube)	Single Rod	●	6 10 15	ø6 —— 5,10,15,20 ø10,15- 5,10,15,20,(25),30	1.2-2
	Single Acting (Non-lube)	Single Rod Spring return			5/10/15	1.2-8

How to Order/Double Acting

Standard stroke (mm)

ø6	5, 10, 15, 20
ø10, ø15	5, 10, 15, 20, (25), 30

Rod end thread

—	With thread
B	Without thread

CJP F 10 — 15 D — □

With Auto Switch CDJP F 10 — 15 D — □ — 90 S

Air cylinder with auto switch

Action

Number of auto switches

—	2
S	1

∗ 5 stroke: S type only

Mounting

Symbol	Mounting	Standard	With auto switch
B	Basic	●	●
F	Flange	●	●
L	Foot	●	●
D	Clevis	●	—
T	Trunnion	●	—

Bore Size

6	6mm
10	10mm
15	15mm

Applicable Auto Switches

Electrical entry	Indicator	Wiring (Output)	Load voltage: DC		Load voltage: AC	Auto switch model No.	Lead wire	Length of lead wire (m): 0.5 (—)	3 (L)	5 (Z)	Applicable load	
Grommet	Yes	2 wire	24V	12V	—	**97**	Parallel code	●	●	●	—	Relay PLC
				12V	100V	**93A**	Cab tire	●	●	●		
	No		24V	5V 12V	24 V or less	**90**	Parallel code	●	●	●	IC circuit	
				5V 12V	100 V or less	**90A**	Cab tire	●	●	●		

∗ Impossible to mount the auto switch on the clevis and trunnion styles.

Pin Cylinder/Single Acting Spring Return

Series CJP

CAD

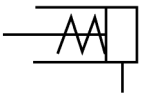
ø6, ø10, ø15

A short stroke miniature cylinder with a shorter overall length.

The installation space can be significantly reduced because this cylinder can be recessed directly into a machine body or installed on a panel. Thus, the machines can be made more compact.

Plug Mounting Style　　Panel Mounting Style

Symbol



How to Order

CJP B 10 — 15 H4 —

Pin cylinder

Mounting

B	Panel mounting
S	Plug mounting

Bore size

6	6mm
10	10mm
15	15mm

Stroke (mm)

ø6, ø10, ø15	5, 10, 5

Hose nipple
(Applicable to panel mounting style)

H4	Tube size ø4/ø2.5
H6	Tube size ø6/ø4

Rod end thread

—	With thread
B	Without thread

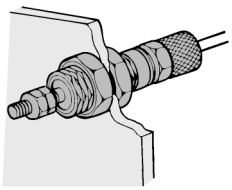
Specifications

Action		Single acting spring return	
Max. operating pressure		0.7MPa	
Min. operating pressure	ø6	0.2MPa	
	ø10, ø15	0.15MPa	
Proof pressure		1.05MPa	
Ambient and fluid temperature		–10 to 70°C (Non-freezing)	
Lubrication		Not required	
Operating piston speed		50 to 500mm/s	
Cushion		None	
Stroke tolerance		$^{+1.0}_{0}$	
Thread tolerance		JIS 2 class	
Rod end thread		With thread/Without thread	
Mounting method		Panel mounting	Plug mounting
Standard accessories		Mounting nut (2) Hose nipple (1) Rod end nut (2)*	Mounting nut (1) Gasket (1) Rod end nut (2)*

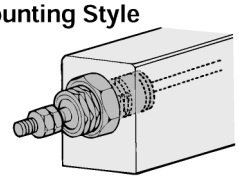
* Provided to the model with rod end nut.

Mounting Style

Panel Mounting Style

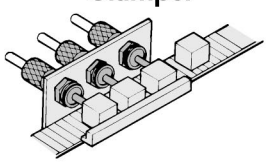


Plug Mounting Style

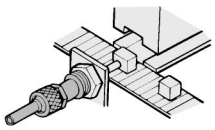


Application Examples

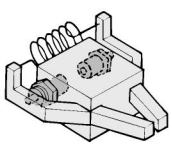
Clamper



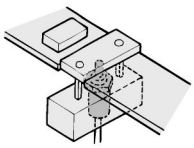
Ejector



Gripper



Stopper



Standard Strokes

Bore size (mm)	Stroke (mm)
6	5, 10, 15
10	5, 10, 15
15	5, 10, 15

Spring Retracting Force (N)

Bore size (mm)	Stroke (mm)	0 stroke	Stroke end
6	5, 10, 15	3.92	1.42
10	5, 10, 15	5.98	2.45
15	5, 10, 15	10.8	4.41

∗ Same spring force for each stroke.

Weight (g)

Model	Stroke (mm)		
	5	10	15
CJP□6	10.6	13.1	15.6
CJP□10	28	33	38
CJP□15	72	82	92

∗ Weight of hose nipple (4gf) is not included.

Hose Nipple For Panel Mount Style

(With Fixed Orifice)

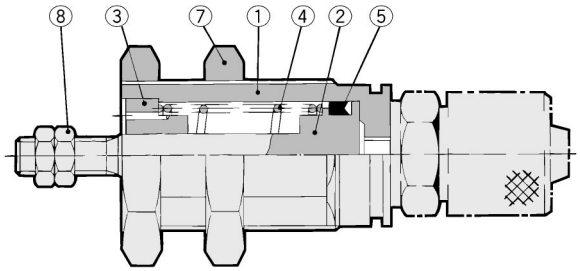
Applicable tubing	Model
ø4/ø2.5	CJ-5H-4
ø6/ø4	CJ-5H-6

Theoretical Force (N)

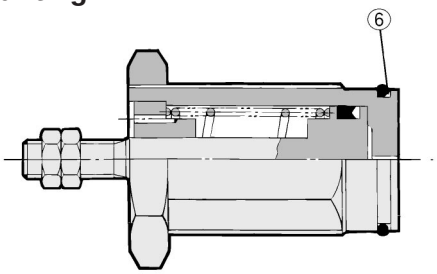
Bore size (mm)	Operating direction	Operating pressure (MPa)		
		0.3	0.5	0.7
6	OUT	4.56	10.2	15.9
	IN	1.42		
10	OUT	17.6	33.3	49.0
	IN	2.45		
15	OUT	42.2	77.5	113
	IN	4.41		

Construction (Disassembly is not possible.)

Panel mounting



Plug mounting



Component Parts

(Disassembly is not possible.)

No.	Description	Material	Note
①	Cover	Brass	Electroless nickel plated
②	Piston	Stainless steel	
③	Collar	Brass	
④	Return spring	Piano wire	Zinc chromate
⑤	Piston seal	NBR	
⑥	Gasket	NBR	Special product (O ring) Plug mounting only
⑦	Mounting nut	Brass	Electroless nickel plated
⑧	Rod end nut	Steel	Nickel plated

Provided Nut/Part No.

Description \ Bore (mm)	6	10	15
Mounting nut	SNPS-006	SNPS-010	SNPS-015
Rod end nut	NTP-006	NTP-010	NTP-015

⚠ Precautions

Be sure to read before handling. Refer to p.0-39 to 0-46 for Safety Instructions and common precautions.

Piping

⚠ Caution

① Use a dedicated hose nipple. On the panel mounting style, use the CJ-5H-4 or CJ-5H-6, a dedicated hose nipple (with a fixed restriction) that is provided. If a different fitting must be used due to unavoidable circumstances, make sure to install a speed controller and use it by adjusting it to 500mm/s or less.

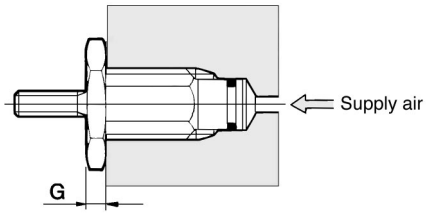
Mounting

⚠ Caution

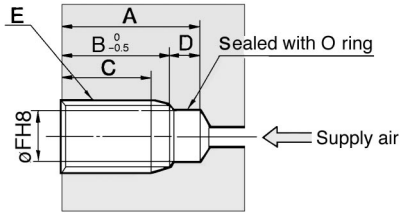
① Do not operate in such a way that a load is applied to the piston rod during its retraction. The spring that is built into the cylinder provides only enough force to retract the piston rod. Thus, if a load is applied, the piston rod will not be able to retract to the end of the stroke.

Recommended Mounting Hole Dimensions for Plug Mounting Style

When plug mounted



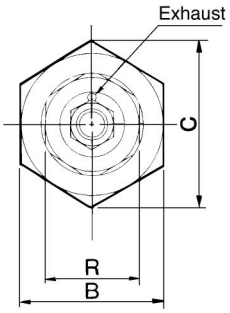
Machining dimensions for Mounting

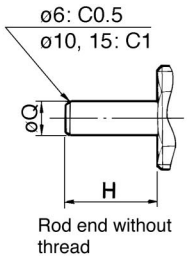


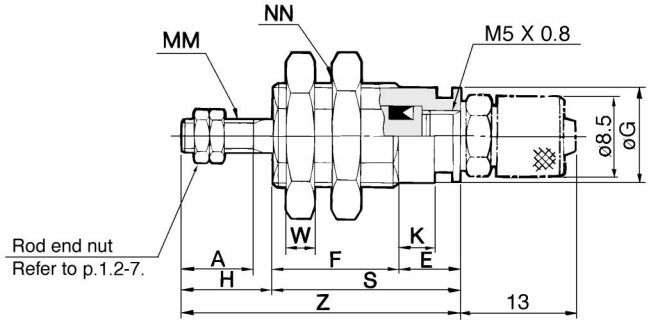
Bore (mm)	Stroke	A	B	C	D	E	F	G
6	5	16	12.5	10	3.5	M10 X 1.0	8.5	3
	10	23	19.5	17				
	15	30	26.5	24				
10	5	17	13.5	10.5	3.5	M15 X 1.5	12	4
	10	23.5	20	17				
	15	30.5	27	24				
15	5	19	14.5	11.5	4.5	M22 X 1.5	19	5
	10	25	20.5	17.5				
	15	31.5	27	24				

Panel Mounting Style

CJPB



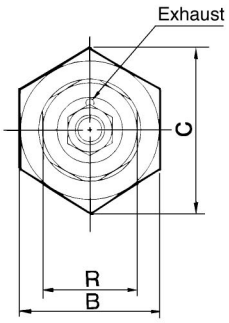


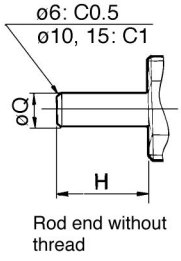


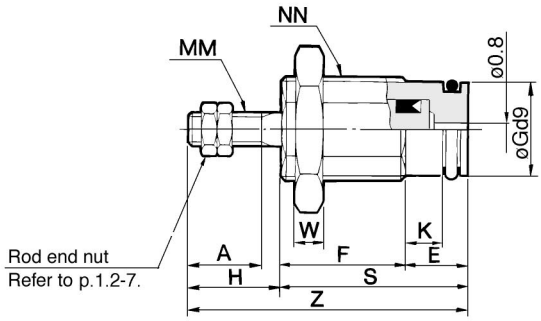
Bore (mm)	A	B	C	E	F			G	H	K	MM	NN	R	S			W	Z			Q
					5st	10st	15st							5st	10st	15st		5st	10st	15st	
6	7	12	13.9	6	12.5	19.5	26.5	8.5	9	3.5	M3 X 0.5	M10 X 1.0	9	18.5	25.5	32.5	3	27.5	34.5	41.5	3
10	10	19	22	6	14.5	21	28	12	12	3.5	M4 X 0.7	M15 X 1.5	13	20.5	27	34	4	32.5	39	46	5
15	12	27	31	7	16.5	22.5	29	19	14	4.2	M5 X 0.8	M22 X 1.5	20	23.5	29.5	36	5	37.5	43.5	50	6

Plug Mounting Style

CJPS







Bore (mm)	A	B	C	E	F			G	H	K	MM	NN	R	S			W	Z			Q
					5st	10st	15st							5st	10st	15st		5st	10st	15st	
6	7	12	13.9	6	12.5	19.5	26.5	8.5	9	3.5	M3 X 0.5	M10 X 1.0	9	18.5	25.5	32.5	3	27.5	34.5	41.5	3
10	10	19	22	6	14.5	21	28	12	12	3.5	M4 X 0.7	M15 X 1.5	13	20.5	27	34	4	32.5	39	46	5
15	12	27	31	7	16.5	22.5	29	19	14	4.2	M5 X 0.8	M22 X 1.5	20	23.5	29.5	36	5	37.5	43.5	50	6

CJPB6·····SCJP6, #6
CJPB10·····SCJP10, #6
CJPB15·····SCJP15, #6