

# Air Cylinder: Standard Type Double Acting, Double Rod

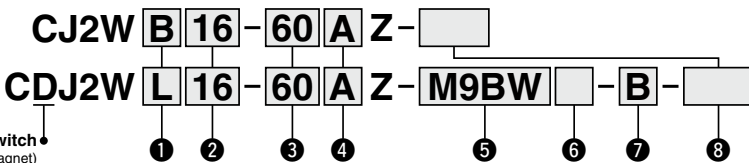
## CJ2W Series

ø6, ø10, ø16



### How to Order

**With auto switch**



#### 1 Mounting

B	Basic
L	Foot
F	Flange

\*: Foot/Flange brackets are shipped together with the product, but not assembled.

#### 5 Auto switch

Nil	Without auto switch
-----	---------------------

\*: For applicable auto switches, refer to the table below.

★ Enter the auto switch mounting type (A or B) even when a built-in magnet cylinder without an auto switch is required.

#### 2 Bore size

6	6 mm
10	10 mm
16	16 mm

#### 3 Cylinder standard stroke [mm]

Refer to "Standard Strokes" on page 65.

#### 4 Cushion

Nil	Rubber bumper
A	Air cushion

\*: ø6: Rubber bumper only

#### 7 Auto switch mounting type

A	Rail mounting
B	Band mounting

\*: For rail mounting, screws and nuts for 2 auto switches come with the rail.

\*: Refer to page 148 for auto switch mounting brackets.

\*: ø6: Band mounting only

#### 8 Made to Order

Refer to page 65 for details.

### Applicable Auto Switches/Refer to pages 1575 to 1701 for further information on auto switches.

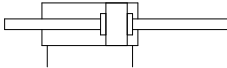
Type	Special function	Electrical entry	Indicate light	Wiring (Output)	Load voltage		Auto switch model				Lead wire length [m]				Pre-wired connector	Applicable load				
					DC	AC	Band mounting		Rail mounting		0.5 (Nil)	1 (M)	3 (L)	5 (Z)			None (N)			
							Perpendicular	In-line	Perpendicular	In-line										
Solid state auto switch	—	Grommet	3-wire (PNP)	3-wire (PNP)	5 V, 12 V	—	M9NV	M9N	M9NV	M9N	●	●	●	○	○	IC circuit				
							M9PV	M9P	M9PV	M9P	●	●	●	○	○					
		M9BV	M9B	M9BV	M9B	●	●	●	○	○	—									
		H7C	J79C	—	—	●	—	●	●	—										
	Diagnostic indication (2-color indicator)	Grommet	Yes	3-wire (NPN)	3-wire (NPN)	5 V, 12 V	—	M9NVV	M9NV	M9NVV	M9NV	●	●	●	○	○	IC circuit			
								M9PWV	M9PW	M9PWV	M9PW	●	●	●	○	○				
	Water resistant (2-color indicator)	Grommet	No	2-wire	2-wire	12 V	—	M9BWW	M9BW	M9BWW	M9BW	●	●	●	○	○	—			
								M9NAV*1	M9NA*1	M9NAV*1	M9NA*1	○	○	○	○	○				
	With diagnostic output (2-color indicator)	Grommet	No	3-wire (PNP)	3-wire (PNP)	5 V, 12 V	—	M9PAV*1	M9PA*1	M9PAV*1	M9PA*1	○	○	○	○	○	IC circuit			
								M9BAV*1	M9BA*1	M9BAV*1	M9BA*1	○	○	○	○	○				
Reed auto switch	—	Grommet	Yes	3-wire (NPN equivalent)	—	5 V	—	A96V	A96	A96V	A96	●	—	—	—	IC circuit				
								—	—	A72	A72H	●	—	●	—		—			
								100 V	A93V*2	A93	A93V*2	A93	●	●	●		—	—		
								100 V or less	A90V	A90	A90V	A90	●	—	●		—	—		
		Grommet	No	2-wire	24 V	12 V	—	—	—	—	C73C	A73C	—	—	●	●	●	IC circuit		
									—	—	C80C	A80C	—	—	●	●	●			
									24 V or less	—	—	—	—	—	●	—	●		—	—
									—	—	—	—	A79W	—	—	●	—		●	—

\*1: Water resistant type auto switches can be mounted on the above models, but in such case SMC cannot guarantee water resistance. Please contact SMC regarding water resistant types with the above model numbers.  
 \*2: 1 m type lead wire is only applicable to D-A93.  
 \*: 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 above, refer to page 149 for details.  
 \*: Solid state auto switches marked with "○" are produced upon receipt of order.  
 \*: The D-A93□/M9□/A7□/A8□/F7□/J7□ auto switches are shipped together, but not assembled. (For band mounting, only the auto switch mounting brackets are assembled before shipment.)

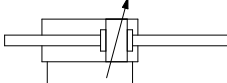


**Symbol**

Double acting, Double rod, Rubber bumper



Air cushion



**Made to Order: Individual Specifications**  
(For details, refer to page 150.)

Symbol	Specifications
-X446	PTFE grease

**Made to Order**

[Click here for details](#)

Symbol	Specifications
-XA	Change of rod end shape
-XB6	Heat resistant cylinder (-10 to 150°C) * Not available with switch & with air cushion
-XB7	Cold resistant cylinder (-40 to 70°C) * Not available with switch & with air cushion
-XC22	Fluororubber seal * Not available with air cushion
-XC51	With hose nipple
-XC85	Grease for food processing equipment

Refer to pages 142 to 149 for cylinders with auto switches.

- Auto switch proper mounting position (detection at stroke end) and its mounting height
- Minimum stroke for auto switch mounting
- Operating range
- Auto switch mounting brackets/Part no.

**⚠ Precautions**

**Refer to page 152 before handling.**

**Moisture Control Tube IDK Series**



When operating an actuator with a small diameter and a short stroke at a high frequency, the dew condensation (water droplet) may occur inside the piping depending on the conditions.

Simply connecting the moisture control tube to the actuator will prevent dew condensation from occurring. For details, refer to the [IDK series in the Best Pneumatics No. 6](#).

**Specifications**

Bore size [mm]		6	10	16
<b>Action</b>		Double acting, Double rod		
<b>Fluid</b>		Air		
<b>Proof pressure</b>		1 MPa		
<b>Maximum operating pressure</b>		0.7 MPa		
<b>Minimum operating pressure</b>	Rubber bumper	0.15 MPa		0.1 MPa
	Air cushion	—		0.1 MPa
<b>Ambient and fluid temperature</b>		Without auto switch: -10°C to 70°C (No freezing) With auto switch: -10°C to 60°C		
<b>Cushion</b>		Rubber bumper / Air cushion		
<b>Lubrication</b>		Not required (Non-Lube)		
<b>Piston speed</b>	Rubber bumper	50 to 750 mm/s		
	Air cushion	—	50 to 1000 mm/s	
<b>Allowable kinetic energy</b>	Rubber bumper	0.012 J	0.035 J	0.090 J
	Air cushion (Effective cushion length)	—	0.07 J (9.4 mm)	0.18 J (9.4 mm)
<b>Stroke length tolerance</b>		±0.10		

**Standard Strokes**

Bore size	Standard stroke [mm]
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 in 1 mm increments is possible. (Spacers are not used.) Produced upon receipt of order.
- \*: Please consult with SMC for strokes which exceed the standard stroke length.
- \*: Applicable strokes should be confirmed according to the usage. For details, refer to "Air Cylinders Model Selection" on front matter pages. In addition, the products that exceed the standard stroke might not be able to fulfill the specifications due to the deflection etc.

**Mounting and Accessories**

● Mounted on the product. ○ Please order separately.

Mounting		Basic	Foot	Flange
Standard	Mounting nut	●	●	●
	Rod end nut	●	●	●
Option	Single knuckle joint	○	○	○
	Double knuckle joint (including a pin and retaining rings)	○	○	○
	Double knuckle joint (With one-touch connecting pin)	○	○	○
	Rod end cap (Flat/Round type)	○	○	○

- \*: ø10 and ø16 only
- \*: Stainless steel mounting brackets and accessories are also available. Refer to page 63-1 for details.

**Mounting Brackets/Part No.**

Mounting bracket	Bore size [mm]		
	6	10	16
Foot	CJ-L006C	CJ-L010C	CJ-L016C
Flange	CJ-F006C	CJ-F010C	CJ-F016C

**Weights**

Bore size [mm]	Rubber bumper			Air cushion		
	6	10	16	10	16	
Basic weight (When the stroke is zero)	25	29	56	36	61	
Additional weight per 15 mm of stroke	3	4.5	7.5	4.5	7.5	
	Foot	16	16	50	16	50
Mounting bracket weight	Flange	5	5	13	5	13
	Single knuckle joint	—	17	23	17	23
Accessories	Double knuckle joint (including knuckle pin)	—	25	21	25	21
	Double knuckle joint (With one-touch connecting pin)	—	26	22	26	22
	Rod end cap (Flat type)	1	1	2	1	2
	Rod end cap (Round type)	1	1	2	1	2

- \*: Mounting nut and rod end nut are included in the basic weight.  
Calculation:  
Example) **CJ2WL10-45Z**

- Basic weight ..... 29 (ø10)
  - Additional weight ..... 4.5/15 stroke
  - Cylinder stroke ..... 45 stroke
  - Mounting bracket weight ..... 16 (Foot)
- 29 + 4.5/15 x 45 + 16 = **58.5 g**

CJ1

CJP

CJ2

JCM

CM2

CM3

CG1

CG3

JMB

MB

MB1

CA2

CS1

CS2

D-□

-X□

Technical Data

# CJ2W Series

## Clean Series

10-CJ2W Mounting 10 16 - Stroke Z  
 ↓  
 Clean Series

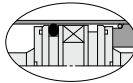
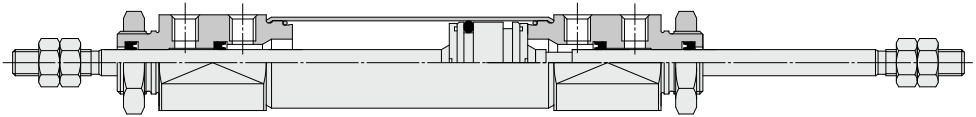
Air cylinder which is applicable for the system which discharges leakage from the rod section directly into the outside of clean room by relief port and making an actuator's rod section having a double seal construction.

For the detailed specifications, refer to the "Pneumatic Clean Series" (CAT.E02-23).

### Specifications

Action	Double acting, Double rod
Bore size [mm]	10, 16
Maximum operating pressure	0.7 MPa
Minimum operating pressure	0.1 MPa
Cushion	Rubber bumper
Standard stroke [mm]	Same as standard type. (Refer to page 65.)
Auto switch	Mountable (Band mounting)
Mounting	Basic, Foot, Flange

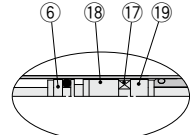
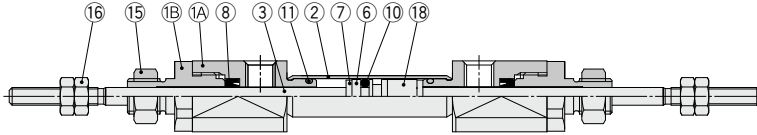
### Construction (Not able to disassemble)



With auto switch

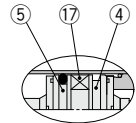
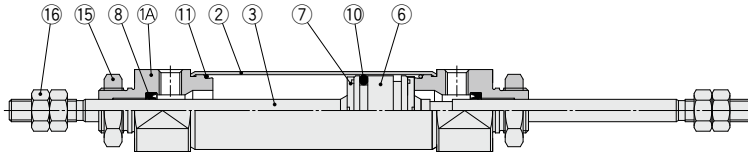
**Construction (Not able to disassemble)**

ø6  
Rubber bumper



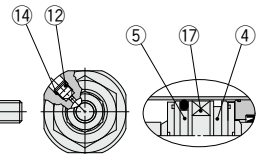
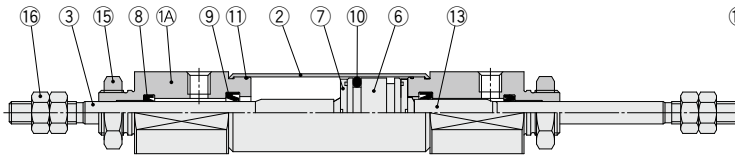
With auto switch

ø10, ø16  
Rubber bumper



With auto switch

ø10, ø16  
Air cushion



With auto switch

**Component Parts**

No.	Description	Material	Note
1A	Rod cover	Aluminum alloy	
1B	Seal retainer	Aluminum alloy	ø6 only
2	Cylinder tube	Stainless steel	
3	Piston rod	Stainless steel	
4	Piston A	Aluminum alloy	
5	Piston B	Aluminum alloy	
6	Piston	Aluminum alloy	
7	Bumper	Urethane	
8	Rod seal	NBR	
9	Cushion seal	NBR	

No.	Description	Material	Note
10	Piston seal	NBR	
11	Tube gasket	NBR	
12	Cushion needle	Carbon steel	
13	Cushion ring	Aluminum alloy	
14	Needle seal	NBR	
15	Mounting nut	Rolled steel	
16	Rod end nut	Rolled steel	
17	Magnet	—	
18	Spacer A	Aluminum alloy	ø6 only
19	Spacer B	Aluminum alloy	ø6 only

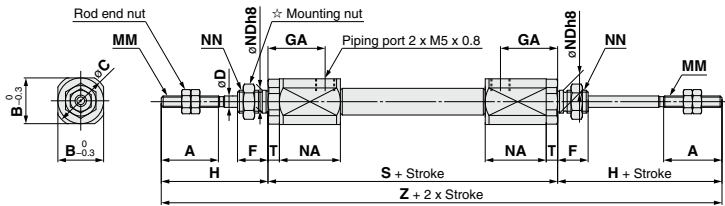
- CJ1**
- CJP**
- CJ2**
- JCM**
- CM2**
- CM3**
- CG1**
- CG3**
- JMB**
- MB**
- MB1**
- CA2**
- CS1**
- CS2**

- D-□**
- X□**
- Technical Data

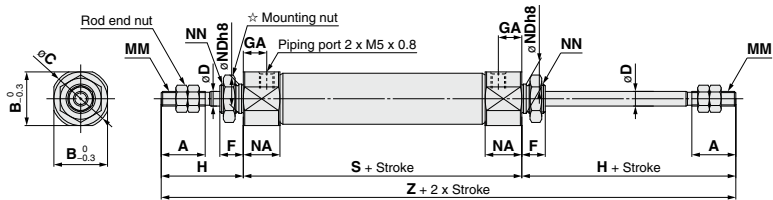
# CJ2W Series

## Basic (B)

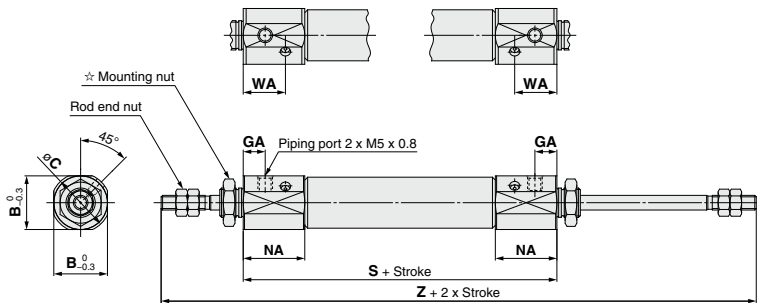
### CJ2WB6 – Stroke Z



### CJ2WB 10/16 – Stroke Z



### With air cushion: CJ2WB 10/16 – Stroke AZ



☆ For details of the mounting nut, refer to page 63.

Bore size	A	B	C	D	F	GA	H	MM	NA	NDh8	NN	S	T	Z
6	15	12	14	3	8	14.5	28	M3 x 0.5	16	6 <sup>0.018</sup>	M6 x 1.0	61 (66)	3	117 (122)
10	15	12	14	4	8	8	28	M4 x 0.7	12.5	8 <sup>0.022</sup>	M8 x 1.0	49	—	105
16	15	18.3	20	5	8	8	28	M5 x 0.8	12.5	10 <sup>0.022</sup>	M10 x 1.0	50	—	106

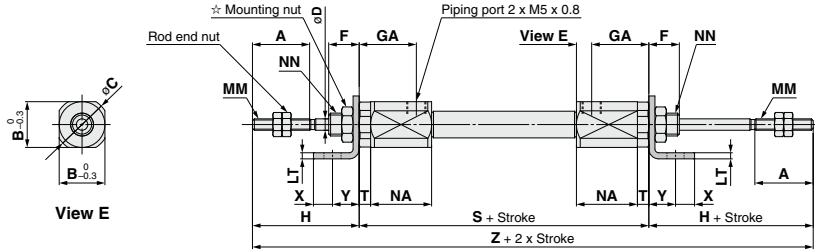
With Air Cushion/Dimensions other than the table below are the same as the table above.

Bore size	B	C	GA	NA	WA	S	Z
10	15	17	7.5	21	14.4	66	122
16	18.3	20	7.5	21	14.4	67	123

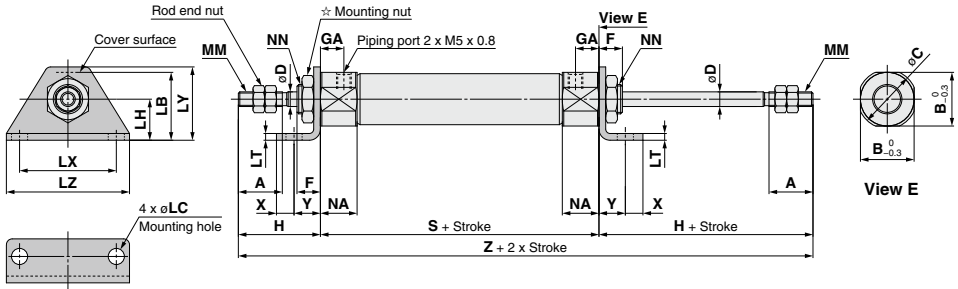
☆: ( ) in S and Z dimensions: With auto switch

**Foot (L)**

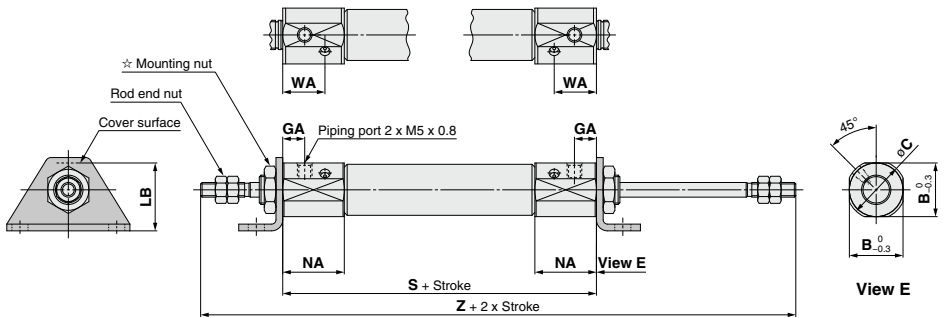
**CJ2WL6 – Stroke Z**



**CJ2WL 10/16 – Stroke Z**



**With air cushion: CJ2WL 10/16 – Stroke AZ**



☆ For details of the mounting nut, refer to page 63.

Bore size	A	B	C	D	F	GA	H	LB	LC	LH	LT	LX	LY	LZ	MM	NA	NN	S	T	X	Y	Z
6	15	12	14	3	8	14.5	28	15	4.5	9	1.6	24	16.5	32	M3 x 0.5	16	M6 x 1.0	61 (66)	3	5	7	117 (122)
10	15	12	14	4	8	8	28	15	4.5	9	1.6	24	16.5	32	M4 x 0.7	12.5	M8 x 1.0	49	—	5	7	105
16	15	18.3	20	5	8	8	28	23	5.5	14	2.3	33	25	42	M5 x 0.8	12.5	M10 x 1.0	50	—	6	9	106

**With Air Cushion** Dimensions other than the table above are the same as the table above.

Bore size	B	C	GA	LB	NA	S	Z
10	15	17	7.5	16.5	21	14.4	122
16	18.3	20	7.5	23	21	14.4	123

☆: ( ) in S and Z dimensions: With auto switch

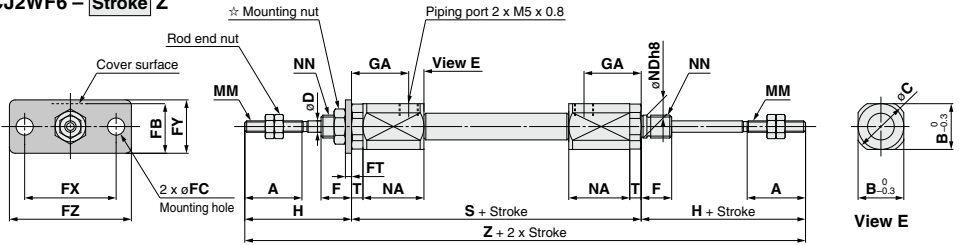
- CJ1
- CJP
- CJ2
- JCM
- CM2
- CM3
- CG1
- CG3
- JMB
- MB
- MB1
- CA2
- CS1
- CS2

- D-
- X
- Technical Data

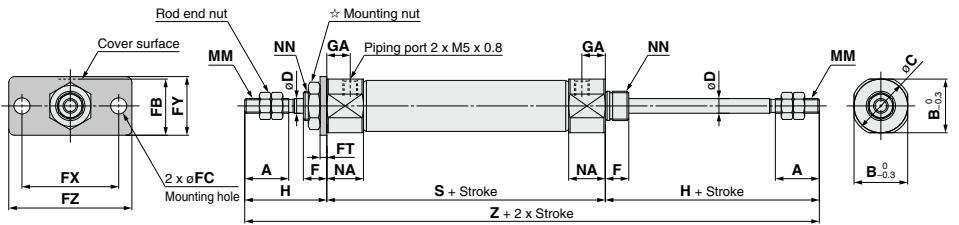
# CJ2W Series

## Flange (F)

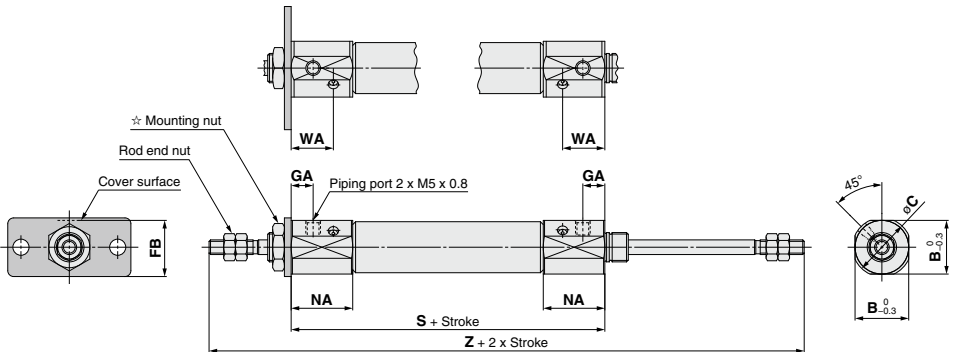
### CJ2WF6 – Stroke Z



### CJ2WF 10/16 – Stroke Z



### With air cushion: CJ2WF 10/16 – Stroke AZ



☆ For details of the mounting nut, refer to page 63.

Bore size	A	B	C	D	F	FB	FC	FT	FX	FY	FZ	GA	H	MM	NA	NN	S	T	Z
6	15	12	14	3	8	13	4.5	1.6	24	14	32	14.5	28	M3 x 0.5	16	M6 x 1.0	61 (66)	3	117 (122)
10	15	12	14	4	8	13	4.5	1.6	24	14	32	8	28	M4 x 0.7	12.5	M8 x 1.0	49	—	105
16	15	18.3	20	5	8	19	5.5	2.3	33	20	42	8	28	M5 x 0.8	12.5	M10 x 1.0	50	—	106

**With Air Cushion** Dimensions other than the table below are the same as the table above.

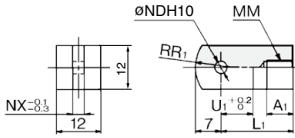
Bore size	B	C	GA	FB	NA	WA	S	Z
10	15	17	7.5	14.5	21	14.4	66	122
16	18.3	20	7.5	19	21	14.4	67	123

☆: ( ) in S and Z dimensions: With auto switch

# CJ2 Series

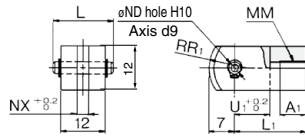
# Dimensions of Accessories (Options)

## Single Knuckle Joint Material: Rolled steel



Part no.	Applicable bore size	A <sub>1</sub>	L <sub>1</sub>	MM	NDH10	NX	R <sub>1</sub>	U <sub>1</sub>
I-J010C	10	8	21	M4 x 0.7	3.3 <sup>+0.048</sup> / <sub>0</sub>	3.1	8	9
I-J016C	16	8	25	M5 x 0.8	5 <sup>+0.048</sup> / <sub>0</sub>	6.4	12	14

## Double Knuckle Joint Material: Rolled steel

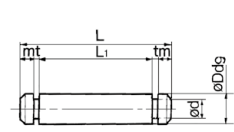


Part no.	Applicable bore size	A <sub>1</sub>	L	L <sub>1</sub>	MM
Y-J010C	10	8	15.2	21	M4 x 0.7
Y-J016C	16	11	16.6	21	M5 x 0.8

Part no.	NDd9	NDH10	NX	R <sub>1</sub>	U <sub>1</sub>
Y-J010C	3.3 <sup>+0.030</sup> / <sub>-0.060</sub>	3.3 <sup>+0.048</sup> / <sub>0</sub>	3.2	8	10
Y-J016C	5 <sup>+0.030</sup> / <sub>-0.060</sub>	5 <sup>+0.048</sup> / <sub>0</sub>	6.5	12	10

\*\*: A knuckle pin and retaining rings are included.

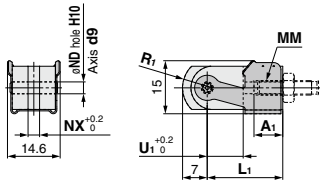
## Knuckle Pin Material: Stainless steel



Part no.	Applicable bore size	Dd9	d	L	L <sub>1</sub>	m	t	Included retaining ring
CD-J010	10	3.3 <sup>+0.030</sup> / <sub>-0.060</sub>	3	15.2	12.2	1.2	0.3	Type C 3.2
IY-J015	16	5 <sup>+0.030</sup> / <sub>-0.060</sub>	4.8	16.6	12.2	1.5	0.7	Type C 5

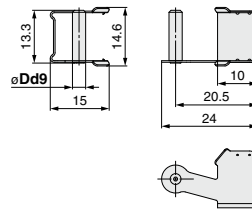
\*\*: For ø10, a clevis pin is diverted.  
\*\*: Retaining rings are included with a knuckle pin.

## Double Knuckle Joint (With One-touch Connecting Pin)



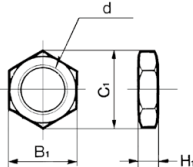
Part no.	Applicable bore size	A <sub>1</sub>	L <sub>1</sub>	MM	NDd9	NDH10	NX	R <sub>1</sub>	U <sub>1</sub>
Y-J10	10	8	21	M4 x 0.7	3.3 <sup>+0.030</sup> / <sub>-0.060</sub>	3.3 <sup>+0.048</sup> / <sub>0</sub>	3.2	8	10
Y-J16	16	11	21	M5 x 0.8	5 <sup>+0.030</sup> / <sub>-0.060</sub>	5 <sup>+0.048</sup> / <sub>0</sub>	6.5	12	10

## One-touch Connecting Pin for Double Knuckle Joint Material: Stainless steel



Part no.	Applicable bore size	Dd9
IY-J10	10	3.3 <sup>+0.030</sup> / <sub>-0.060</sub>
IY-J16	16	5 <sup>+0.030</sup> / <sub>-0.060</sub>

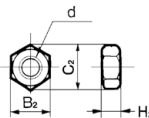
## Mounting Nut Material: Carbon steel



Part no.	Applicable bore size	B <sub>1</sub>	C <sub>1</sub>	d	H <sub>1</sub>
SNJ-006C	6	8	9.2	M6 x 1.0	4
SNJ-010C	10	11	12.7	M8 x 1.0	4
SNJ-016C	16	14	16.2	M10 x 1.0	4
SNKJ-016C*	16	17	19.6	M12 x 1.0	4

\*\*: For ø16 non-rotating type. (Use SNJ-016C for ø10 non-rotating type.)

## Rod End Nut Material: Carbon steel



Part no.	Applicable bore size	B <sub>2</sub>	C <sub>2</sub>	d	H <sub>2</sub>
NTJ-006B	6	5.5	6.4	M3 x 0.5	2.4
NTJ-010C	10	7	8.1	M4 x 0.7	3.2
NTJ-015C	16	8	9.2	M5 x 0.8	4

CJ1

CJP

CJ2

JCM

CM2

CM3

CG1

CG3

JMB

MB

MB1

CA2

CS1

CS2

D-□

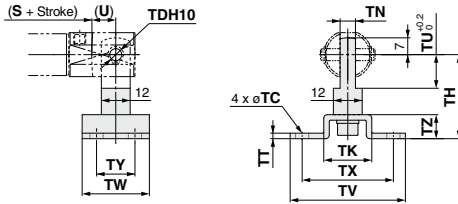
-X□

Technical Data



# CJ2 Series

## Pivot Bracket (T-bracket)



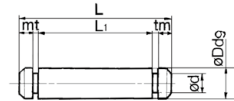
Part no.	Applicable bore size	TC	TDH10	TH	TK	TN	TT	TU	TV	TW	TX	TY	TZ
CJ-T010C	10	4.5	3.3 <sup>+0.048</sup> <sub>0</sub>	29	18	3.1	2	9	40	22	32	12	8
CJ-T016C	16	5.5	5 <sup>+0.048</sup> <sub>0</sub>	35	20	6.4	2.3	14	48	28	38	16	10

\*: A T-bracket includes a T-bracket base, single knuckle joint, hexagon socket head bolt and spring washer.

\*: For dimensions of (U) and (S + Stroke), refer to the double clevis drawing on page 60.

## Clevis Pin

Material: Stainless steel



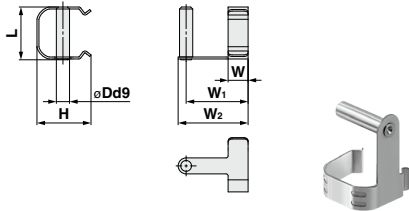
Part no.	Applicable bore size	Dd9	d	L	L <sub>1</sub>	m	t	Included retaining ring
CD-J010	10	3.3 <sup>+0.030</sup> <sub>-0.060</sub>	3	15.2	12.2	1.2	0.3	Type C 3.2
CD-Z015	16	5 <sup>+0.030</sup> <sub>-0.060</sub>	4.8	22.7	18.3	1.5	0.7	Type C 5
CD-JA010*	10	3.3 <sup>+0.030</sup> <sub>-0.060</sub>	3	18.2	15.2	1.2	0.3	Type C 3.2

\*: For ø10 double clevis type, with air cushion and built-in speed controller.

\*: Retaining rings are included with a clevis pin.

## One-touch Connecting Pin for Double Clevis

Material: Stainless steel



Part no.	Applicable bore size	Dd9	H	L	W
CD-J10	10	3.3 <sup>+0.030</sup> <sub>-0.060</sub>	13.4	13.2	4
CD-J16	16	5 <sup>+0.030</sup> <sub>-0.060</sub>	18.2	19.5	5

Part no.	W <sub>1</sub>	W <sub>2</sub>	Note
CD-J10	12	15	Cannot be mounted on cylinders with air cushion, or rail mounting type auto switches.
CD-J16	15	18	

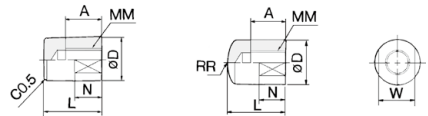
\*: Please pay attention to the applicable cylinder.

## Rod End Cap

Material: Polyacetal

Flat type/CJ-CF□□□

Round type/CJ-CR□□□



Part no.	Applicable bore size	A	D	L	MM	N	R	W	
CJ-CF006	CJ-CR006	6	6	8	11	M3 x 0.5	5	8	6
CJ-CF010	CJ-CR010	10	8	10	13	M4 x 0.7	6	10	8
CJ-CF016	CJ-CR016	16	10	12	15	M5 x 0.8	7	12	10

## Mounting Brackets, Rod End Brackets, and Nut Material: Stainless Steel

Part No. (Dimensions: Same as standard type)

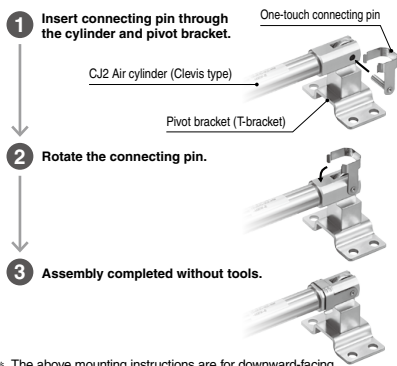
Bore size [mm]	Foot	Flange	Single knuckle joint	Double knuckle joint*	Mounting nut	Rod end nut
10	—	—	I-J010SUS	Y-J010SUS	—	NTJ-010SUS
16	CJ-L016SUS	CJ-F016SUS	I-J016SUS	Y-J016SUS	SNJ-016SUS	NTJ-016SUS

\*: A knuckle pin and retaining rings are shipped together.

## Precautions

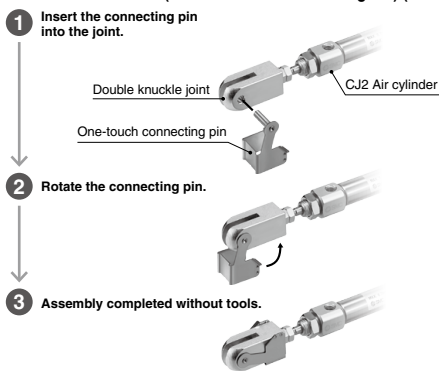
### Assembly Procedures

#### 1. Double Clevis (With One-touch Connecting Pin) (CD-J□)



\* The above mounting instructions are for downward-facing ports. Refer to the following for upward-facing ports.

#### 2. Double Knuckle Joint (With One-touch Connecting Pin) (IV-J□)



### How to Mount the Double Clevis (With One-touch Connecting Pin)

When connecting a double clevis cylinder to a pivot bracket (T-bracket), it is recommended that the pivot bracket (T-bracket) and the cylinder be connected with the one-touch connecting pin first, before fastening the pivot bracket.

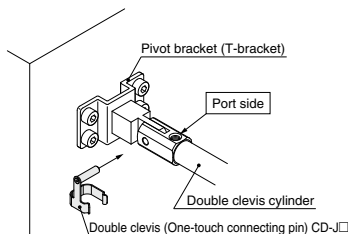
When connecting the cylinder after the pivot bracket (T-bracket) has been fastened, mount the cylinder according to the following procedure.

### ⚠ Warning

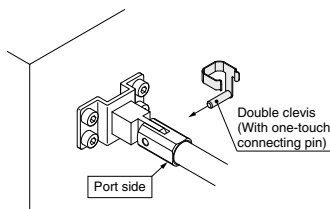
For assembling the clevis type to the pivot bracket, refer to the figure below.

1. Insert the double clevis (One-touch connecting pin) from the direction in the figure.

When port is facing upward

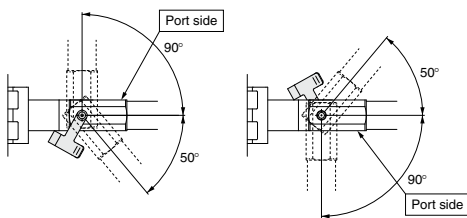


When port is facing downward

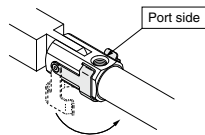


### ⚠ Warning

\* Perform the mounting within the following range.



2. Push the one-touch connecting pin into the cylinder body (Double clevis) until it clicks and is firmly fastened.



\* Attach the double knuckle joint within 180° (±90° from center). Other mounting methods are the same as the above.

CJ1

CJP

**CJ2**

JCM

CM2

CM3

CG1

CG3

JMB

MB

MB1

CA2

CS1

CS2

D-□

-X□

Technical Data

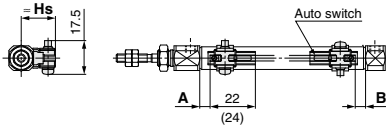
# Auto Switch Mounting

## Auto Switch Proper Mounting Position (Detection at stroke end) and Its Mounting Height

### Solid state auto switch

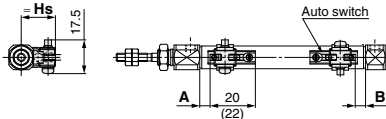
#### <Band mounting>

- D-M9□
- D-M9□W
- D-M9□A



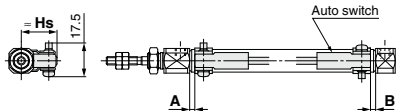
( ) : Dimension of the D-M9□A.  
A and B are the dimensions from the end of the head cover/rod cover to the end of the auto switch.

- D-M9□V
- D-M9□MV
- D-M9□AV



( ) : Dimension of the D-M9□AV.  
A and B are the dimensions from the end of the head cover/rod cover to the end of the auto switch.

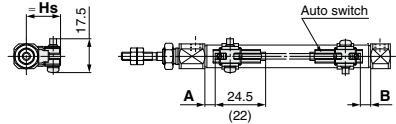
- D-H7□
- D-H7□W
- D-H7BA
- D-H7NF
- D-H7C



### Reed auto switch

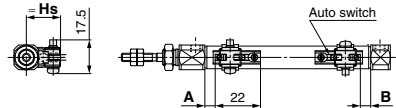
#### <Band mounting>

- D-A9□



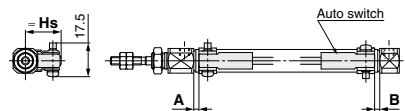
( ) : Dimension of the D-A96.  
A and B are the dimensions from the end of the head cover/rod cover to the end of the auto switch.

- D-A9□V



A and B are the dimensions from the end of the head cover/rod cover to the end of the auto switch.

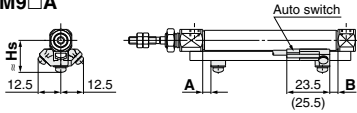
- D-C7□/C80
- D-C73C□/C80C



**Auto Switch Proper Mounting Position (Detection at stroke end) and Its Mounting Height**

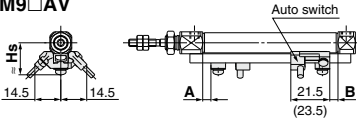
<Rail mounting>

D-M9□  
D-M9□W  
D-M9□A



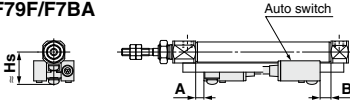
( ) : Dimension of the D-M9□A.

D-M9□V  
D-M9□WV  
D-M9□AV

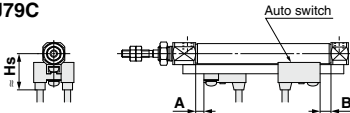


( ) : Dimension of the D-M9□AV.

D-F7□/J79  
D-F7□W/J79W  
D-F79F/F7BA

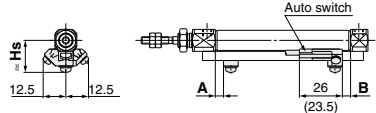


D-F7□V/F7□WV  
D-F7BAV  
D-J79C



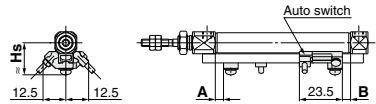
<Rail mounting>

D-A9□

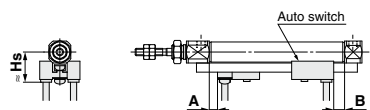


( ) : Dimension of the D-A96.

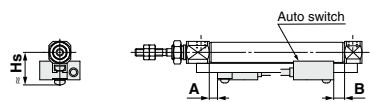
D-A9□V



D-A7□/A80  
D-A73C/A80C  
D-A79W



D-A7□H/A80H



CJ1
CJP
<b>CJ2</b>
JCM
CM2
CM3
CG1
CG3
JMB
MB
MB1
CA2
CS1
CS2

D-□
-X□
Technical Data

## Auto Switch Proper Mounting Position (Detection at stroke end) and Its Mounting Height

### Auto Switch Proper Mounting Position (Single acting type excluded) [mm]

Auto switch model	Band mounting							
	D-M9□ D-M9□V D-M9□W D-M9□WV D-M9□A D-M9□AV		D-A9□ D-A9□V		D-H7□ D-H7C D-H7NF D-H7□W D-H7BA		D-C7□ D-C80 D-C73C D-C80C	
Bore size	A	B	A	B	A	B	A	B
6	5.5 (4.5) [12]	5.5 (4.5) [4]	1.5 (0.5) [8]	1.5 (0.5) [0]	1 (7.5)	1 (0)	2 (8.5)	2 (0.5)
10	(5) 6	(5) 6	(1) 2	(1) 2	1.5	1.5	2.5	2.5
16	(5.5) 6.5	(5.5) 6.5	(1.5) 2.5	(1.5) 2.5	2	2	3	3

\*: The values in ( ) are measured from the end of the auto switch mounting bracket.

\*: The values in [ ] are for bore size ø6 are for the double rod type (CJ2W series).

Auto switch model	Rail mounting											
	D-M9□ D-M9□V D-M9□W D-M9□WV D-M9□A D-M9□AV		D-A9□ D-A9□V		D-F7□/J79 D-F7□W/J79W D-F7□V/F7□WV D-F79F D-J79C D-F7BA D-F7BAV D-A7□H/A80H D-A73C/A80C		D-F7NT		D-A7□ D-A80		D-A79W	
Bore size	A	B	A	B	A	B	A	B	A	B	A	B
6	—	—	—	—	—	—	—	—	—	—	—	—
10	4.5	4.5	0.5	0.5	3.5	3.5	8.5	8.5	3	3	0.5	0.5
16	5	5	1	1	4	4	9	9	3.5	3.5	1	1

\*: Adjust the auto switch after confirming the operating condition in the actual setting.

### Auto Switch Mounting Height

Auto switch model	Band mounting									
	D-M9□ D-M9□W D-M9□A D-A9□		D-M9□V D-M9□WV D-M9□AV D-A9□V		D-H7□/H7□W D-H7NF D-H7BA D-C7□/C80		D-H7C		D-C73C D-C80C	
Bore size	Hs		Hs		Hs		Hs		Hs	
6	15		16		15		18		17.5	
10	17		18		17		20		19.5	
16	20.5		21		20.5		23.5		23	

Auto switch model	Rail mounting													
	D-M9□ D-M9□V D-M9□W D-M9□WV D-M9□A D-M9□AV D-A9□ D-A9□V		D-F7□/J79 D-F7□W/J79W D-F7BA/F79F D-F7NT D-A7□H/A80H		D-F7□V D-F7□WV D-F7BAV		D-J79C		D-A7□ D-A80		D-A73C D-A80C		D-A79W	
Bore size	Hs		Hs		Hs		Hs		Hs		Hs		Hs	
6	—		—		—		—		—		—		—	
10	17.5		17.5		20		23		16.5		23.5		19	
16	21		20.5		23		26		19.5		26.5		22	

**Auto Switch Proper Mounting Position (Detection at stroke end)  
and Its Mounting Height/Single Acting, Spring Return Type (S)**

**Auto Switch Proper Mounting Position: Spring Return Type (S)**

- Standard Type (CDJ2□□□-□SZ)
- Non-rotating Rod Type (CDJ2K□□□-□SZ)
- Direct Mount Type (CDJ2R□□□-□SZ)
- Direct Mount, Non-rotating Rod Type (CDJ2RK□□□-□SZ)

Auto switch model	Bore size	A dimensions									B	
		5 to 9 st	10 to 15 st	16 to 30 st	31 to 45 st	46 to 60 st	61 to 75 st	76 to 100 st	101 to 125 st	126 to 150 st		
Band mounting	D-M9□	6	—	12	21	25	39	—	—	—	—	5.5
	D-M9□W/M9□WV	10	—	13	20.5	32.5	44.5	—	—	—	—	6
	D-M9□A/M9□AV	16	—	12.5	21	33	45	51	75	93	105	6.5
	D-M9□V	6	12	12	21	25	39	—	—	—	—	5.5
		10	13	13	20.5	32.5	44.5	—	—	—	—	6
	D-A9□	6	—	8	17	21	35	—	—	—	—	1.5
		10	—	9	16.5	28.5	40.5	—	—	—	—	2
	D-A9□V	6	—	8.5	17	29	41	47	71	89	101	2.5
		10	—	9	16.5	28.5	40.5	—	—	—	—	2
	D-H7□/H7C	6	—	7.5	16.5	20.5	34.5	—	—	—	—	1
		10	—	8.5	16	28	40	—	—	—	—	1.5
	D-H7□W/H7BA	6	—	8	16.5	28.5	40.5	46.5	70.5	88.5	100.5	2
		16	—	8	16.5	28.5	40.5	46.5	70.5	88.5	100.5	2
	D-C7□/C80	6	—	8.5	17.5	21.5	35.5	—	—	—	—	2
		10	—	9.5	17	29	41	—	—	—	—	2.5
	D-C73C	6	—	9	17.5	29.5	41.5	47.5	71.5	89.5	101.5	3
		16	—	9	17.5	29.5	41.5	47.5	71.5	89.5	101.5	3
	D-M9□	10	—	11.5	19	31	43	—	—	—	—	4.5
		16	—	11	19.5	31.5	43.5	49.5	73.5	91.5	103.5	5
	D-M9□W/M9□WV	10	11.5	11.5	19	31	43	—	—	—	—	4.5
		16	11	11	19.5	31.5	43.5	49.5	73.5	91.5	103.5	5
	D-M9□V	10	—	7.5	15	27	39	—	—	—	—	0.5
		16	—	7	15.5	27.5	39.5	45.5	69.5	87.5	99.5	1
	D-A9□	10	7.5	7.5	15	27	39	—	—	—	—	0.5
16		7	7	15.5	27.5	39.5	45.5	69.5	87.5	99.5	1	
D-A9□V	10	—	7.5	15	27	39	—	—	—	—	0.5	
	16	—	7	15.5	27.5	39.5	45.5	69.5	87.5	99.5	1	
D-F7□/F7□V	10	10.5	10.5	18	30	42	—	—	—	—	3.5	
	16	10	10	18.5	30.5	42.5	48.5	72.5	90.5	102.5	4	
D-J79/J79C	10	—	10.5	18	30	42	—	—	—	—	3.5	
	16	—	10	18.5	30.5	42.5	48.5	72.5	90.5	102.5	4	
D-A7□H/A80H	10	—	15.5	23	35	47	—	—	—	—	8.5	
	16	—	15	23.5	35.5	47.5	53.5	77.5	95.5	107.5	9	
D-A73C/A80C	10	10	10	17.5	29.5	41.5	—	—	—	—	3	
	16	9.5	9.5	18	30	42	48	72	90	102	3.5	
D-F7□W/J79W	10	—	10.5	18	30	42	—	—	—	—	3.5	
	16	—	10	18.5	30.5	42.5	48.5	72.5	90.5	102.5	4	
D-F7□WV/F79F	10	—	15.5	23	35	47	—	—	—	—	8.5	
	16	—	15	23.5	35.5	47.5	53.5	77.5	95.5	107.5	9	
D-F7BA/F7BAV	10	—	10.5	18	30	42	—	—	—	—	3.5	
	16	—	10	18.5	30.5	42.5	48.5	72.5	90.5	102.5	4	
D-F7NT	10	—	15.5	23	35	47	—	—	—	—	8.5	
	16	—	15	23.5	35.5	47.5	53.5	77.5	95.5	107.5	9	
D-A7□/A80	10	10	10	17.5	29.5	41.5	—	—	—	—	3	
	16	9.5	9.5	18	30	42	48	72	90	102	3.5	
D-A79W	10	—	7.5	15	27	39	—	—	—	—	0.5	
	16	—	7	15.5	27.5	39.5	45.5	69.5	87.5	99.5	1	

\*: In the actual setting, adjust them after confirming the auto switch performance.

- CJ1
- CJP
- CJ2**
- JCM
- CM2
- CM3
- CG1
- CG3
- JMB
- MB
- MB1
- CA2
- CS1
- CS2

D-□  
-X□  
Technical Data

## Auto Switch Proper Mounting Position (Detection at stroke end) and Its Mounting Height/Single Acting, Spring Extend Type (T)

### Auto Switch Proper Mounting Position: Spring Extend Type (T)

- Standard Type (CDJ2□□□-□TZ)
- Non-rotating Rod Type (CDJ2K□□□-□TZ)
- Direct Mount Type (CDJ2R□□□-□TZ)
- Direct Mount, Non-rotating Rod Type (CDJ2RK□□□-□TZ)

Auto switch model	Bore size	A	B dimensions									
			5 to 9 st	10 to 15 st	16 to 30 st	31 to 45 st	46 to 60 st	61 to 75 st	76 to 100 st	101 to 125 st	126 to 150 st	
Band mounting	D-M9□	6	5.5	—	12	21	25	39	—	—	—	—
	D-M9□W/M9□WV	10	6	—	13	20.5	32.5	44.5	—	—	—	—
	D-M9□A/M9□AV	16	6.5	—	12.5	21	33	45	51	75	93	105
	D-M9□V	6	5.5	12	12	21	25	39	—	—	—	—
		10	6	13	13	20.5	32.5	44.5	—	—	—	—
	D-A9□	16	6.5	12.5	12.5	21	33	45	51	75	93	105
		6	1.5	—	8	17	21	35	—	—	—	—
	D-A9□V	10	2	—	9	16.5	28.5	40.5	—	—	—	—
		16	2.5	—	8.5	17	29	41	47	71	89	101
	D-A9□V	6	1.5	8	8	17	21	35	—	—	—	—
		10	2	9	9	16.5	28.5	40.5	—	—	—	—
	D-A9□V	16	2.5	8.5	8.5	17	29	41	47	71	89	101
		6	1	—	7.5	16.5	20.5	34.5	—	—	—	—
	D-H7□/H7C	10	1.5	—	8.5	16	28	40	—	—	—	—
	D-H7□W/H7BA	16	2	—	8	16.5	28.5	40.5	46.5	70.5	88.5	100.5
	D-H7NF	16	2	—	8	16.5	28.5	40.5	46.5	70.5	88.5	100.5
	D-C7□/C80	6	2	—	8.5	17.5	21.5	35.5	—	—	—	—
	D-C73C	10	2.5	—	9.5	17	29	41	—	—	—	—
D-C80C	16	3	—	9	17.5	29.5	41.5	47.5	71.5	89.5	101.5	
Rail mounting	D-M9□	10	4.5	—	11.5	19	31	43	—	—	—	—
	D-M9□W/M9□WV	16	5	—	11	19.5	31.5	43.5	49.5	73.5	91.5	103.5
	D-M9□A/M9□AV	16	5	—	11	19.5	31.5	43.5	49.5	73.5	91.5	103.5
	D-M9□V	10	4.5	11.5	11.5	19	31	43	—	—	—	—
		16	5	11	11	19.5	31.5	43.5	49.5	73.5	91.5	103.5
	D-A9□	10	0.5	—	7.5	15	27	39	—	—	—	—
		16	1	—	7	15.5	27.5	39.5	45.5	69.5	87.5	99.5
	D-A9□V	10	0.5	7.5	7.5	15	27	39	—	—	—	—
		16	1	7	7	15.5	27.5	39.5	45.5	69.5	87.5	99.5
	D-F7□/F7□V	10	3.5	10.5	10.5	18	30	42	—	—	—	—
	D-J79/J79C	16	4	10	10	18.5	30.5	42.5	48.5	72.5	90.5	102.5
	D-A7□H/A80H	10	3.5	—	10.5	18	30	42	—	—	—	—
D-A73C/A80C	16	4	—	10	18.5	30.5	42.5	48.5	72.5	90.5	102.5	
D-F7□W/J79W	10	3.5	—	10.5	18	30	42	—	—	—	—	
	16	4	—	10	18.5	30.5	42.5	48.5	72.5	90.5	102.5	
D-F7□WV/F79F	10	8.5	—	15.5	23	35	47	—	—	—	—	
D-F7BA/F7BAV	16	8.5	—	15.5	23	35	47	—	—	—	—	
D-F7NT	10	9	—	15	23.5	35.5	47.5	53.5	77.5	95.5	107.5	
	16	9	—	15	23.5	35.5	47.5	53.5	77.5	95.5	107.5	
D-A7□/A80	10	3	10	10	17.5	29.5	41.5	—	—	—	—	
	16	3.5	9.5	9.5	18	30	42	48	72	90	102	
D-A79W	10	0.5	—	7.5	15	27	39	—	—	—	—	
	16	1	—	7	15.5	27.5	39.5	45.5	69.5	87.5	99.5	

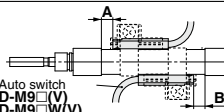
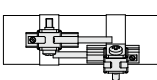
\*: In the actual setting, adjust them after confirming the auto switch performance.

**Minimum Stroke for Auto Switch Mounting**

		[mm]				
Auto switch mounting	Auto switch model	Number of auto switches				
		With 1 pc.	With 2 pcs.		With n pcs. (n: Number of auto switches)	
			Different surfaces	Same surface	Different surfaces	Same surface
Band mounting	D-M9□ D-M9□W D-M9□A D-A9□	10	15*1	45*1	$15 + 35 \frac{(n-2)}{2}$ (n = 2, 4, 6...)*3	45 + 15 (n - 2) (n = 2, 3, 4, 5...)
	D-M9□V	5	15*1	35	$15 + 35 \frac{(n-2)}{2}$ (n = 2, 4, 6...)*3	35 + 25 (n - 2) (n = 2, 3, 4, 5...)
	D-M9□WV D-M9□AV	10	15*1	35	$15 + 35 \frac{(n-2)}{2}$ (n = 2, 4, 6...)*3	35 + 25 (n - 2) (n = 2, 3, 4, 5...)
	D-A9□V	5	10	35	$10 + 35 \frac{(n-2)}{2}$ (n = 2, 4, 6...)*3	35 + 25 (n - 2) (n = 2, 3, 4, 5...)
	D-H7□/H7□W D-H7BA D-H7NF	10	15	60	$15 + 45 \frac{(n-2)}{2}$ (n = 2, 4, 6...)*3	60 + 22.5 (n - 2) (n = 2, 3, 4, 5...)
	D-C7□ D-C80	10	15	50	$15 + 40 \frac{(n-2)}{2}$ (n = 2, 4, 6...)*3	50 + 20 (n - 2) (n = 2, 3, 4, 5...)
	D-H7C D-C73C D-C80C	10	15	65	$15 + 50 \frac{(n-2)}{2}$ (n = 2, 4, 6...)*3	50 + 27.5 (n - 2) (n = 2, 3, 4, 5...)
Rail mounting	D-M9□V	5	—	5	—	10 + 10 (n - 2) (n = 4, 6...)*4
	D-A9□V	5	—	10	—	10 + 15 (n - 2) (n = 4, 6...)*4
	D-M9□ D-A9□	10 (5)*5	—	10	—	15 + 15 (n - 2) (n = 4, 6...)*4
	D-M9□WV D-M9□AV	10	—	15	—	15 + 15 (n - 2) (n = 4, 6...)*4
	D-M9□W	15 (10)*5	—	15	—	20 + 15 (n - 2) (n = 4, 6...)*4
	D-M9□A	15 (10)*5	—	20 (15)*5	—	20 + 15 (n - 2) (n = 4, 6...)*4
	D-F7□ D-J79	5	—	5	—	15 + 15 (n - 2) (n = 4, 6...)*4
	D-F7□V D-J79C	5	—	5	—	10 + 10 (n - 2) (n = 4, 6...)*4
	D-F7□W/J79W D-F7BA/F79F/F7NT	10	—	15	—	15 + 20 (n - 2) (n = 4, 6...)*4
	D-F7□WV D-F7BAV	10	—	15	—	10 + 15 (n - 2) (n = 4, 6...)*4
	D-A7□/A80 D-A7□H/A80H D-A73C/A80C	5	—	10	—	15 + 10 (n - 2) (n = 4, 6...)*4
	D-A7□H D-A80H	5	—	10	—	15 + 15 (n - 2) (n = 4, 6...)*4
	D-A79W	10	—	15	—	10 + 15 (n - 2) (n = 4, 6...)*4

\*3: When "n" is an odd number, an even number that is one larger than this odd number is used for the calculation.  
 \*4: When "n" is an odd number, an even number that is one larger than this odd number is used for the calculation. However, the minimum even number is 4. So, 4 is used for the calculation when "n" is 1 to 3.  
 \*5: The dimension stated in ( ) shows the minimum mountable stroke when the auto switch does not project from the end face of the cylinder body and the lead wire bending space is not hindered.

\*1: Auto switch mounting

Auto switch model	With 2 auto switches	
	Different surfaces*1	Same surface*1
 <p>Auto switch D-M9□(V) D-M9□W(V) D-M9□A(V)</p> <p>The proper auto switch mounting position is 5.5 mm inward from the switch holder edge. The above A and B indicate values for band mounting in the table of page 144.</p>	 <p>The auto switch is mounted by slightly displacing it in a direction (cylinder tube circumferential exterior) so that the auto switch and lead wire do not interfere with each other.</p>	
D-M9□/M9□W/M9□A	Less than 20 stroke*2	Less than 55 stroke*2
D-A9□	—	Less than 50 stroke*2

\*2: Minimum stroke for auto switch mounting in types other than those mentioned in \*1.



CJ1  
CJP  
CJ2  
JCM  
CM2  
CM3  
CG1  
CG3  
JMB  
MB  
MB1  
CA2  
CS1  
CS2

D-□  
-X□  
Technical Data



## Operating Range

Auto switch model	Bore size [mm]			
	6	10	16	
Band mounting	D-M9□/M9□V D-M9□W/M9□WV D-M9□A/M9□AV	2	2.5	3
	D-A9□	4.5	6	7
	D-H7□/H7□W D-H7BA/H7NF	3	4	4
	D-H7C	5	8	9
	D-C7□/C80/C73C/C80C	6	7	7
Rail mounting	D-M9□/M9□V D-M9□W/M9□WV D-M9□A/M9□AV	—	3	3.5
	D-A9□/A9□V	—	6	6.5
	D-F7□/J79/F7□W/J79W D-F7□V/F7□WV/F79F D-J79C/F7BA/F7BAV D-F7NT	—	5	5
	D-A7□/A80/A7H/A80H D-A73C/A80C	—	8	9
	D-A79W	—	11	13

\*: Values which include hysteresis are for guideline purposes only, they are not a guarantee (assuming approximately ±30% dispersion) and may change substantially depending on the ambient environment.

## Auto Switch Mounting Brackets/Part No.

Auto switch mounting	Auto switch model	Bore size [mm]										
		6	10	16								
Band mounting	D-M9□ D-M9□V D-M9□W D-M9□WV D-A9□ D-A9□V	BJ6-006 (A set of a, b, d, f)	BJ6-010 (A set of a, b, c, d)	BJ6-016 (A set of a, b, c, d)								
	D-M9□A *2 D-M9□AV *2	BJ6-006S (A set of a, b, d, g)	BJ6-010S (A set of a, b, d, e)	BJ6-016S (A set of a, b, d, e)								
Band mounting												
		<table border="1"> <tr> <td>c</td> <td>Switch bracket (Resin)</td> </tr> <tr> <td>f</td> <td>Transparent blue (Nylon)*1</td> </tr> <tr> <td>e</td> <td>White (PBT)</td> </tr> <tr> <td>g</td> <td>Black (PBT)</td> </tr> <tr> <td>d</td> <td>Switch holder (Zinc die-casted)</td> </tr> </table>			c	Switch bracket (Resin)	f	Transparent blue (Nylon)*1	e	White (PBT)	g	Black (PBT)
c	Switch bracket (Resin)											
f	Transparent blue (Nylon)*1											
e	White (PBT)											
g	Black (PBT)											
d	Switch holder (Zinc die-casted)											
Band mounting	D-H7□/H7□W D-H7BA/H7NF D-C7□/C80 D-C73C/C80C	BJ2-006 (A set of band and screw)	BJ2-010 (A set of band and screw)	BJ2-016 (A set of band and screw)								
Rail mounting	D-M9□ D-M9□V D-M9□W D-M9□WV D-M9□A *4 D-M9□AV *4 D-A9□ D-A9□V	BQ2-012 (S) (A set of a and b)		BQ2-012 (S) (A set of a and b)								

\*1: Since the switch bracket (made from nylon) are affected in an environment where alcohol, chloroform, methylamines, hydrochloric acid or sulfuric acid is splashed over, so it cannot be used. Please contact SMC regarding other chemicals.

\*2: As the indicator LED is projected from the auto switch unit, indicator LED may be damaged if the switch bracket is fixed on the indicator LED.

\*3: When the cylinder is shipped, the auto switch mounting bracket and the auto switch will be included.

\*4: For D-M9□A(V), order the BQ2-012S, which uses stainless steel mounting screws.

## Band Mounting Brackets Set Part No.

Set part no.	Contents	Bore size [mm]		
		6	10	16
BJ2-□□□	• Auto switch mounting band (a) • Auto switch mounting screw (b)	BJ2-006	BJ2-010	BJ2-016
BJ4-1	• Switch bracket (White/PBT) (e) • Switch holder (d)	—	●	●
BJ4-2	• Switch bracket (Black/PBT) (g) • Switch holder (d)	●	—	—
BJ5-1	• Switch bracket (Transparent/Nylon) (c)*1 • Switch holder (d)	—	●	●
BJ5-2	• Switch bracket (Transparent blue/Nylon) (f)*1 • Switch holder (d)	●	—	—

## [Stainless Steel Mounting Screw]

The following stainless steel mounting screw kit is available. Use it in accordance with the operating environment. (Since the auto switch mounting bracket is not included, order it separately.)

BBA4: For D-C7/C8/H7 types

\*5: Refer to page 1682 for details on the BBA4.

When the D-H7BA type auto switch is shipped independently, the BBA4 is attached.

**Other than the applicable auto switches listed in “How to Order”, the following auto switches are mountable.**

Refer to pages 1575 to 1701 for the detailed specifications.

Type	Mounting	Model	Electrical entry	Features	Applicable bore size
Solid state	Band mounting	D-H7A1/H7A2/H7B	Grommet (In-line)	—	ø6 to ø16
		D-H7NW/H7PW/H7BW		Diagnostic indication (2-color indicator)	
		D-F79/F7P/J79		—	
	Rail mounting	D-F79W/F7PW/J79W	Grommet (Perpendicular)	Diagnostic indication (2-color indicator)	ø10, ø16
		D-F7NV/F7PV/F7BV		—	
		D-F7NWW/F7BWW		Diagnostic indication (2-color indicator)	
Reed	Band mounting	D-C73/C76	Grommet (In-line)	—	ø6 to ø16
		D-C80		Without indicator light	
	Rail mounting	D-A73H/A76H	Grommet (Perpendicular)	—	ø10, ø16
		D-A80H		Without indicator light	
		D-A73		—	
		D-A80		Without indicator light	
		D-A80		Without indicator light	

\*: With pre-wired connector is also available for solid state auto switches. For details, refer to pages 1648 and 1649.

\*: Normally closed (NC = b contact) solid state auto switches (D-M9□E(V)) are also available. For details, refer to page 1592-1.

**CJ1**

**CJP**

**CJ2**

**JCM**

**CM2**

**CM3**

**CG1**

**CG3**

**JMB**

**MB**

**MB1**

**CA2**

**CS1**

**CS2**

**D-□**

**-X□**

Technical Data



## 1 PTFE Grease

Symbol

**-X446**

### Applicable Series

Description	Model	Action	Note
Standard type	CJ2	Double acting, Single rod	
		Single acting (Spring return/extend)	
Non-rotating rod type	CJ2W	Double acting, Double rod	
		Double acting, Single rod	
Built-in speed controller type	CJ2K	Double acting, Single rod	
		Single acting (Spring return/extend)	
Direct mount type	CJ2Z	Double acting, Single rod	
		Double acting, Double rod	
Direct mount, Non-rotating rod type	CJ2ZW	Double acting, Single rod	
		Single acting (Spring return/extend)	

**Specifications: Same as standard type**

**Dimensions: Same as standard type**

\*: When grease is necessary for maintenance, grease pack is available, please order it separately.

**GR-F-005** (Grease: 5 g)

### How to Order

Standard model no.

- X446

PTFE grease ●

### Warning Precautions

Be aware that smoking cigarettes etc. after your hands have come into contact with the grease used in this cylinder can create a gas that is hazardous to humans.

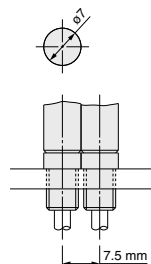
Symbol

**-X773**

## 2 Short Pitch Mounting/Single Acting, Spring Return

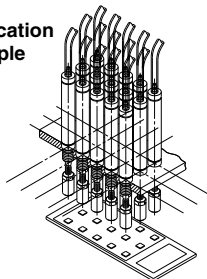
Mounting pitch is shortened when cylinders are used in parallel.

- Changes rod cover and head cover dimensions to  $\phi 7$ .
- Shortens the full length with a head cover integrated with a barb fitting.



\*: Directly mounted with cylinder mounting screws

Application example



Verification of push button actuation for mobile phones etc.

### Applicable Series

Description	Model	Action	Note
Standard type	CJ2	Single acting (Spring return)	

### How to Order

CJ2B6 - **Stroke** SU4Z - X773

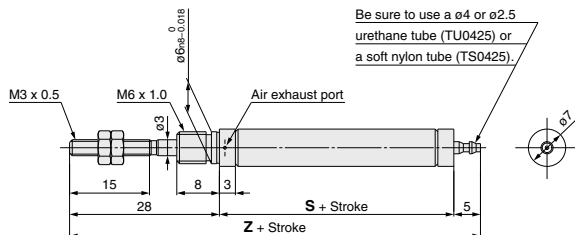
- Short pitch mounting/  
Single acting, spring return



### Specifications

Bore size [mm]	6
Action	Single acting, Spring return
Operating pressure range	0.2 to 0.7 MPa
Port size	With $\phi 4$ barb fitting (For soft tube)
Connecting port location	Head cover/Axial direction
Stroke [mm]	5 to 60
Auto switch	None

### Dimensions



	[mm]			
Stroke	5 to 15	16 to 30	31 to 45	46 to 60
<b>S</b>	30.5	39.5	43.5	57.5
<b>Z</b>	63.5	72.5	76.5	90.5

Note

1. When mounting a cylinder, make sure that the air exhaust port on the rod cover is not blocked.
2. When mounting a cylinder, apply thread locking adhesive on the threaded part and hold the external diameter of the rod cover with a needle-nose pliers or regular pliers.

CJ1

CJP

**CJ2**

JCM

CM2

CM3

CG1

CG3

JMB

MB

MB1

CA2

CS1

CS2

D-□

-X□

Technical Data

## 3 Double Clevis (With One-touch Connecting Pin)

With pivot bracket (T-bracket) and one-touch connecting pin  
Not necessary to order a bracket for the applicable cylinder separately.

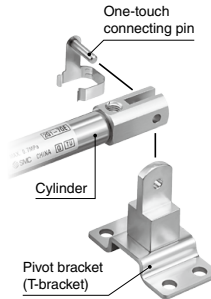
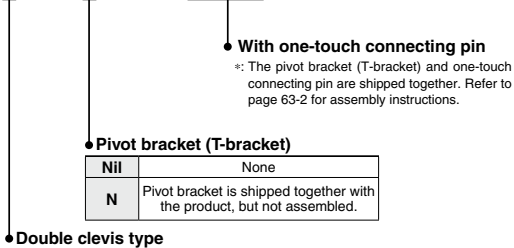
### Applicable Series

Applicable Cylinders (Double Clevis Type)

Series	Bore size [mm]	Type	Model	Action	Note
CJ2D	10, 16	Standard	CJ2D	Double acting, Single rod	Cannot be mounted on cylinders with air cushion, or rail mounting type auto switches.
			CJ2D	Single acting, Single rod (Spring return/extend)	
		Non-rotating rod type	CJ2KD	Double acting, Single rod	
			CJ2KD	Single acting, Single rod (Spring return/extend)	

### How to Order

Example) **CDJ2D10-60Z-N-M9BW-B-X2838**



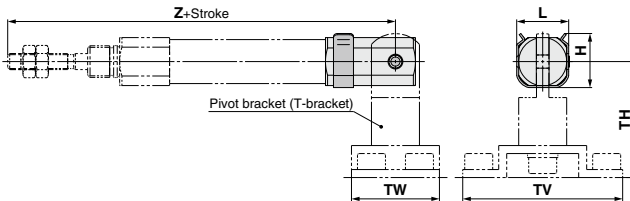
● **Double clevis type**

### Specifications: Same as standard type

### Dimensions

CJ2D  $\frac{10}{16}$  - Stroke Z - (N) - X2838

\*: Refer to page 63-2 for assembly procedures and mounting methods.



Applicable bore size	[mm]					
	H	L	TH	TV	TW	Z
10	13.4	13.2	29	40	22	82
16	18.2	19.5	35	48	28	85

\*: The pivot bracket (T-bracket) is the same as the standard type. Refer to page 63-1 for details.