

Air Cylinder/Standard

Series CS1

Lube, Non-lube: ø125, ø140, ø160, ø180, ø200, ø250, ø300

Air-hydro: ø125, ø140, ø160

How to Order

CS1 **L** **160** **300** **JR**

Mounting

B	Basic
L	Foot
F	Front flange
G	Rear flange
C	Single clevis
D	Double clevis
T	Center trunnion

Tube material

Symbol	Bore size	Tube material
—	ø125 to ø160	Aluminum tube
—	ø180 to ø300	Steel tube
F	ø125 to ø160	Steel tube

Style

—	Lube
N	Non-lube
H	Air-hydro

Rod boot/Cushion

Rod boot	J	Nylon tarpaulin
	K	Heat resistant tarpaulin
Cushion	N	No cushion
	R	With cushion on rod side
	H	With cushion on rod side
	—	With both sides cushion (Air-hydro style: No cushion)

* If specifying more than one symbol, please indicate them in alphabetical order.
 ** The air-hydro style has no cushion. In case of this style, no symbol indicates no cushion.

Cylinder stroke (mm)
 (Refer to p.1.10-3 for max. stroke table.)

Bore size

Lube, Non-lube		Air-hydro	
125	125mm	125	125mm
140	140mm	140	140mm
160	160mm	160	160mm
180	180mm		
200	200mm		
250	250mm		
300	300mm		

Mounting Bracket Part No.

Bore size (mm)	125	140	160	180	200	250	300
Foot*	CS1-L12	CS1-L14	CS1-L16	CS1-L18	CS1-L20	CS1-L25	CS1-L30
Flange	CS1-F12	CS1-F14	CS1-F16	CS1-F18	CS1-F20	CS1-F25	CS1-F30
Single clevis	CS1-C12	CS1-C14	CS1-C16	CS1-C18	CS1-C20	CS1-C25	CS1-C30
Double clevis**	CS1-D12	CS1-D14	CS1-D16	CS1-D18	CS1-D20	CS1-D25	CS1-D30

Refer to p.1.10-7 for How to Order Auto Switches Style.



* Order 2 foot brackets for one cylinder.

** When ordering the double clevis, the clevis pin and the cotter pin (2 pcs.) are attached.

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Specifications

Style	Lube, Non-lube	Air-hydro
Fluid	Air	Turbine oil
Proof pressure	1.57MPa	
Max. operating pressure	0.97MPa	
Min. operating pressure	0.05MPa	0.06MPa
Piston speed	50 to 500 mm/s	0.5to 200 mm/s
Cushion	With	Without
Ambient and fluid temperature	0 to 70°C (No freezing), Air-hydro: 5 to 60°C	
Thread tolerance	JIS class 2	
Stroke length tolerance (mm)	250 or less: $^{+1.0}_0$, 251 to 1,000: $^{+1.4}_0$, 1,001 to 1,500: $^{+1.8}_0$ 1501 to 2000: $^{+2.2}_0$, 2001 to 2400: $^{+2.6}_0$	
Mounting	Basic, Foot, Front flange, Rear flange, Single clevis, Double clevis, Center trunnion	

CJ1

CJP

CJ2

CM2

C85

Accessories

Mounting	Basic	Foot	Front flange	Rear flange	Single clevis	Double clevis	Center trunnion
Standard	Clevis pin, Cotter pin	—	—	—	—	●	—
Accessory	Rod end nut	●	●	●	●	●	●
	Single knuckle joint	●	●	●	●	●	●
	Double knuckle joint (Knuckle pin, Cotter pin)	●	●	●	●	●	●
	Rod boot	●	●	●	●	●	●

CG1

MB

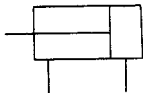
C95

CA1

CS1

* Refer to p.1.10-19 in case of using rod end nut together with double knuckle joint.

JIS system Double acting style



Made to Order

Refer to p.5.4-1 for made to order specifications for series CS1.

Max. Stroke

(mm)

Tube material	Aluminum alloy		Carbon steel tube	
Mounting bracket	Basic Rear flange Single clevis Double clevis Center trunnion	Foot Front flange	Basic Rear flange Single clevis Double clevis	Foot Front flange
Bore				
125	1000 or less	1400 or less	1000 or less	1600 or less
140	1000 or less	1400 or less	1000 or less	1600 or less
160	1200 or less	1400 or less	1200 or less	1600 or less
180	—	—	1200 or less	2000 or less
200	—	—	1200 or less	2000 or less
250	—	—	1200 or less	2400 or less
300	—	—	1200 or less	2400 or less

Second Class Pressure Vessel

In case of exceeding the following strokes, the cylinder is in the scope of the second class pressure vessel.

Bore size (mm)	Stroke (mm)
180	1,569
200	998
250	813
300	564

Rod Boot Materials

Symbol	Material	Max. ambient temp.
J	Nylon tarpaulin	60°C
K	Heat resistant tarpaulin	110°C*

* Max. ambient temperature for the rod boot itself.