

4ManPro

Elements For Manufacturing Processes

ACTUADORES



油研工業株式会社

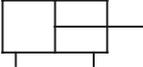
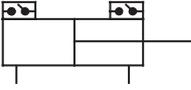


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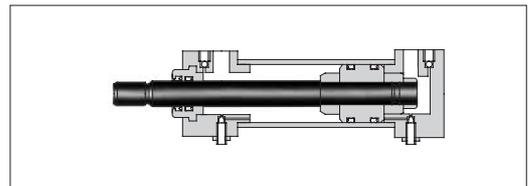
Hydraulic Cylinders

Cylinder Type		Nominal Pressure MPa (PSI)	Cylinder Bore mm (Inches)	Page
Standard Type 	CJT-35	3.5 (510)	32 - 160 (1.26 - 6.30)	806
	CJT-70	7 (1020)	32 - 250 (1.26 - 9.84)	
	CJT-140	14 (2030)	32 - 250 (1.26 - 9.84)	
	CJT-210	21 (3050)	40 - 160 (1.57 - 6.30)	
Switch Set Type 	CJT-35L	3.5 (510)	32 - 80 (1.26 - 3.15)	
	CJT-70L	7 (1020)	32 - 125 (1.26 - 4.92)	
	CJT-140L	14 (2030)	32 - 125 (1.26 - 4.92)	

■ "CJT" Series Hydraulic Cylinders

YUKEN's "CJT" Series Hydraulic Cylinders are provided with many mounting types so that they can be used for wide use of general purpose industrial machines such as machine tools. Moreover, Switch-Set "CJT" Series Hydraulic Cylinders with a proximity switch which facilitates detecting a position with a slide proximity switch on the cylinder body is also available.

- Various mounting types.
- Excellent ability in low speed and high-precision operation.
- Gentle stop characteristics obtained with a smooth cushion effect.



■ Specifications

Description		Standard Type				Switch Set Type		
		CJT35	CJT70	CJT140	CJT210	CJT35L	CJT70L	CJT140L
Cylinder Bore	mm (In.)	Refer to the "Cylinder Bore Selection Chart"						
Nominal Pressure	MPa (PSI)	3.5 (510)	7 (1020)	14 (2030)	21 (3050)	3.5 (510)	7 (1020)	14 (2030)
Min. Operating Pressure	MPa (PSI)	Less than 0.1 (14.5)	Less than 0.3 (43.5)	Less than 0.3 (43.5)	Less than 0.3 (43.5)	Less than 0.1 (14.5)	Less than 0.3 (43.5)	Less than 0.3 (43.5)
Operating Speed	mm/s (In./s)	8 - 300 (.31 - 11.8)	8 - 400 * ¹ (.31 - 15.7)		8 - 300 (.31 - 11.8)	8 - 300 (.31 - 11.8)	8 - 400 * ¹ (.31 - 15.7)	
Max. Stroke * ²	mm (In.)	1800 (70.9)	2000 (78.7)			1600 (63.0)	2000 (78.7)	

★ 1. Max. Operating Speed is varied according to the Cylinder Bore.

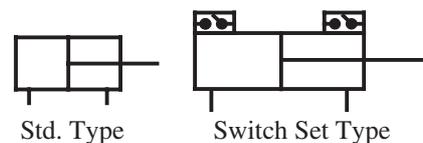
★ 2. Max. Stroke may be varied according to the Cylinder Bore. It also may be limited to lower value according to buckling strength. For details, consult Yuken.

● Cylinder Bore Selection Chart

Cylinder Bore mm(In.)	Standard Type				Switch Set Type		
	CJT 35	CJT 70	CJT 140	CJT 210	CJT 35L	CJT 70L	CJT 140L
32 (1.26)	○	○	○		○	○	○
40 (1.57)	○	○	○	○	○	○	○
50 (1.97)	○	○	○	○	○	○	○
63 (2.48)	○	○	○	○	○	○	○
80 (3.15)	○	○	○	○	○	○	○
100 (3.94)	○	○	○	○		○	○
125 (4.92)	○	○	○	○		○	○
140 (5.51)		○	○	○			
150 (5.91)		○	○				
160 (6.30)	○	○	○	○			
180 (7.09)		○	○				
200 (7.87)		○	○				
220 (8.66)		○	○				
250 (9.84)		○	○				

★ The mark ○ in above chart show selectable Cylinder Bore.

Graphic Symbols



Consult Yuken when detailed material such as dimensions figures is required.

Model Number Designation

Standard Type

(Ex.) CJT70 - LA 32 C 100 B - A B D - * - 20

Max. Operating Pres.
 35: 3.5 MPa (510 PSI)
 70: 7 MPa (1020 PSI)
 140: 14 MPa (2030 PSI)
 210: 21 MPa (3050 PSI)

Mounting
 (Refer to the [following page](#))

Cylinder Bore (mm)

Rod Type
 A: Ultra Heavy Duty Type (CJT 70/140)
 B: Heavy Duty Type (CJT70/140/210)
 C: Standard Type (CJT70/140)
 S: Special Type (CJT35)

Stroke (mm)

Options
 (Consult YUKEN when options is required.)

Air Vent Position
 D: Left

Cushion Valve Position
 B: Right
 N: No Cushion Valve

Port Position
 A: Upward

Location of Cushion
 B: Both Sides
 R: Rod Side
 H: Head Side
 N: No Cushion

Switch Set Type

Composition of basic model code is the same as of the above mentioned standard type. However the following underlined marks shall be added.

(Ex.) CJT70L - LA32C100B - ABD - * X1 2 - 20

Switch Set Type

Number of Switch
 1: 1 Pc.
 2: 2 Pcs.
 3: 3 Pcs.

Type of Switch (Refer to Table below)
 X1, Y1: Lead Wire, 1.5m (4.9 ft.)
 X5, Y5: Lead Wire, 5m (16.4 ft.)
 XA, XB: Plug-in Connector

Options
 (Consult Yuken when options is required.)

Specification of Switch

Switch Type		Load Voltage Range	Load Current Range	Maximum Switching Capacity	Allowable Length of Wire	Indication Light
Contact Switch	X1, X5 (Lead Wire)	5- 120 V AC 5- 30 V DC	5- 20 mA (AC) 5- 40 mA (DC)	2 VA (AC) 1.5 W (DC)	10 m (AC) 100 m (DC)	Light Emitting Diode (Red colour lights when switch is "ON".)
	XA (Plug-in Connector)	5- 120 V AC	5- 20 mA (AC)	2 VA (AC)	10 m	
	XB (Plug-in Connector)	5- 30 V DC	5- 40 mA (DC)	1.5 W (DC)	100 m	
Contactless Switch	Y1, Y5 (Lead Wire)	5- 30 V DC	5- 40 mA (DC)	—	10 m	

Mounting

Symbol	Name	Illustration of Mounting Type	CJT35 CJT35L	CJT70 CJT70L	CJT140 CJT140L	CJT210
LA	Foot Mounting Side Lugs		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LB	Foot Mounting Side End Angles		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
FA	Rod Rectangular Flange		<input type="radio"/>	<input type="radio"/>		<input type="radio"/>
FE				<input type="radio"/>	<input type="radio"/>	
FY				<input type="radio"/>	<input type="radio"/>	
FB	Head Rectangular Flange		<input type="radio"/>	<input type="radio"/>		<input type="radio"/>
FF				<input type="radio"/>	<input type="radio"/>	
FC	Rod Square Flange			<input type="radio"/>	<input type="radio"/>	
FD	Head Square Flange			<input type="radio"/>	<input type="radio"/>	
CA	Cap Detachable Eye		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CB	Cap Detachable Clevis		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
TA	Rod Trunnion		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
TC	Intermediate Trunnion		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
SD	Basic Type		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

● The mark in above chart show selectable Mounting Types.



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