
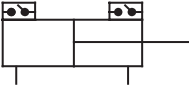


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ACTUATORS

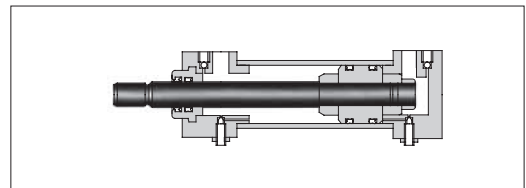
Hydraulic Cylinders

| 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.

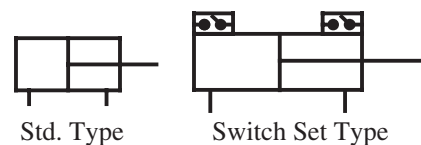
★ 2. Max. Stroke may be varied according to the Cylinder Bore. It also may be limited to lower value according to buckling strength. For details, consult Yuken.

● 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

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.)

Switch Set Type

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.