

# 7/14MPa Hydraulic Cylinders with Position Detector Model:70/140P-8

## Full Product Description

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The 70 / 140P-8 series is a tie rod hydraulic cylinder with a 7 / 14MPa specification position sensor with bore sizes of  $\phi 40$  to  $\phi 100$ . By adopting a high-performance cushion, the impact at the time of stopping is reduced. High-precision position control and position detection can be obtained by combining with a computer or digital counter. The switch set has been standardized up to a bore size of  $\phi 100$ . Double rod types are also supported as standard.

### Markets:

- General Industry
- Factory Automation
- Machine Tools
- Molding

### Applications:

- General Industry
- Factory Automation
- Machine Tools
- Injection molding
- Presses

### Features/Benefits:

- 5 standard mounting styles.
- Single and double rod designs available.
- Up to 2 rod sizes per bore.
- Standard stroke is up to 2,000mm.
- As a safety measure, the cushion valve uses a retaining mechanism and a locknut to prevent loosening.
- Sealing material can be selected from 4 types.
- Magnetic proximity switch specifications are also available.
- Resolution : 0.1 mm/pulse

## Technical Specifications

<b>Bore Diameter:</b>	φ40,φ50,φ63,φ80,φ100 mm	<b>Rod End Type:</b>	Rod B,Rod C, Rod eye (T-end), rod clevis (Y-end) with pin, floating joint (F-end) Floating joint(F-end:Do not use together with Mounting style CT accessories.)
<b>Seal Material:</b>	1:Nitrile rubber 2:Urethane rubber 3:Fluorocarbon 6:HNBR	<b>Operating Pressure:</b>	7MPa
<b>Maximum Operating Pressure:</b>	Cap side:9 Rod side: (B)13.5(C)11 MPa	<b>Proof Pressure:</b>	10.5MPa
<b>Minimum Operating Pressure:</b>	Cap side:0.3MPa or less Rod side:(B)0.45MPa or less(C)0.4MPa or less MPa	<b>Operating Speed:</b>	8 to 300mm/s
<b>Operating Temperature:</b>	-10 to +50°C(no freezing) (ambient temperature) °C	<b>Cushioning Type:</b>	Metal fitting system
<b>For Fluid Type:</b>	Petroleum-based fluid(When using another fluid,give us such instructions.)	<b>Thread Tolerance:</b>	JIS 6g/6H
<b>Body Material:</b>	Carbon steel for machine structural use	<b>Stroke Tolerance:</b>	0 to 100mm:0 to +0.8 101 to 250mm:0 to +1.0 251 to 630mm:0 to +1.25 631 to 1000mm:0 to +1.4 1001 to 1600mm:0 to +1.6 1601 to 2000mm:0 to +1.8
<b>Mounting Type:</b>	SD, LA, LB, FG, FH, CT	<b>Bellows Material:</b>	Standard : Nylon tarpaulin Semi-standard : Chloroprene, Conex
<b>Input Voltage:</b>	Standard:12V DC Semi-standard:12V to 24V DC	<b>Signal Output:</b>	Standard:12V DC voltage output Phase A & B(90°phase)30mA or less Semi-standard:NPN open collector output Phase A & B(90°phase)Applied voltage:24V DC or less Sink current:30mA or less
<b>Resolution:</b>	0.1mm/Pulse mm	<b>Maximum Output Error:</b>	0.5mm/m(Length measuring error per meter of total moving distance)
<b>Maximum Operating Speed:</b>	300mm/s	<b>Operating Humidity:</b>	90%RH(no condensing)