Parker TAIYO

Hydraulic （Incremental Type Cylinder）

Load Sensing System / Load Sensing Cylinder

PQCL Series

Output unit (load output unit)

- Analog voltage outputs and binary data outputs are equipped as standard devices.
- Addition of the multi-point output function enables to set any ON and OFF positions and use various judgment functions.
- Three kinds of voltage can be applied. Applicable to a variety of commercially available load cells

Specification

Specifications

Type	PQCL
Applicable transducer	Strain gauge transducer (350Ω)
AD conversion method	Method of successive comparison
Display range	±99999
Resolution	0.05%/F.S. (at applied voltage of 10 V and rated output of 2 mV/V)
Linearity	±0.03%/F.S.
Signal input range	−3mV/V to 3mV/V
Sampling speed	1000 times/sec
Display speed	10 times/sec
Display method	7-segment LED display
Control input	No-voltage input (With contact, No contact)
Control output	NPN open collector
Analog voltage output	Max. ±10V
Power supply for transducer	2.5, 5, 10 V DC
Supply voltage	100 V AC±10% 50/60Hz
Working ambient temperature	0 to +50℃
Working ambient humidity	35 to 85%RH (No condensing)
Weight	Approx. 1500 g
Power consumption	18 VA or less

External input/output

Terminal	
Pin No.	Description
1	Load cell signal (+)
2	Load cell signal (−)
3	Voltage applied to load cell (0 V)
4	Voltage applied to load cell (10 V)
5	Voltage applied to load cell (5 V)
6	Voltage applied to load cell (2.5 V)
7	Analog voltage output (+)
8	Analog voltage output (−)
9	Load cell shield

Connector No.2	
Pin No.	Description
1	Start signal input
2	Peak off signal input
3	Auto zero signal input
4	Reset signal input
5	Error cancel signal input
7 to 10	Selection signal input
11 to 12	Input common
13 to 32	20-bit binary data output
37	Read timing signal output
38	Error signal output
41 to 42	Output common

Connector No.1	
Pin No.	Description
1 to 14	Multi-point output signal
15	High-order selection output
17 to 18	Output common

Note) Use a binary data input unit having a response time of 1 ms or less.

Cable type

●For cylinder output unit
PQCL-CV1-<u>05</u>
Length 05 : 5m
10 : 10m

*For the robot cable type unit, add "-R" to the code.
Example: PQCL-CV1-05-R

●Power cable supplied (1.5 m)
●Connector supplied

Output unit specifications

Name	Load output unit	
Type	PQCL-CU2-A	PQCL-CU2-B
Functions	· Multi-point output · Display of load · Binary output · Analog voltage output	· Display of load · Binary output · Analog voltage output

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How to Order

①Normally, the load sensor connector connecting port is fitted toward the cylinder rear end. However, if the connecting port position overlaps with the port position (A or C), the connecting port will be located at a position turned 90°clockwise.
When the ports B and D are provided, the connector port cannot be located on the same surface.
(See the above figure.)
②When requiring a cylinder having a non-standard stroke, separately consult us about the seal material.
③The wire of the stroke sensor block is 1 m long. A connector is provided at the end.
④To use the lock nut, change dimention A.

	Type	Seal material	Mounting style	Cylinder bore	Rod type	Cushioning	Stroke (mm)		Port position	Cushion valve position	Sensor symbol	Sensor quantity	Sensor connector position
●Standard for 7 MPa	PQCL-NH	1	FG	50	B	B	100	-	A	B	00	0	E
●For 7 MPa, with sensor	PQCL-NHR	1	FG	50	B	B	100	-	A	B	AH	1	E
●Standard for 14 MPa	PQCL-HH	1	FG	50	A	B	100	-	A	B	00	0	E
●For 14 MPa, with sensor	PQCL-HHR	1	FG	50	A	B	100	-	A	B	AH	1	E

Nitrile rubber

FG

ϕ50,ϕ63,ϕ80,ϕ100

For 7 MPa: Rod B
For 14 MPa: Rod A

B Both ends cushioned
R With cushion on rod side
H With cushion on cap side
N No cushion

50,100,150,200,250
300,350,400,450,500

A,B,C,D

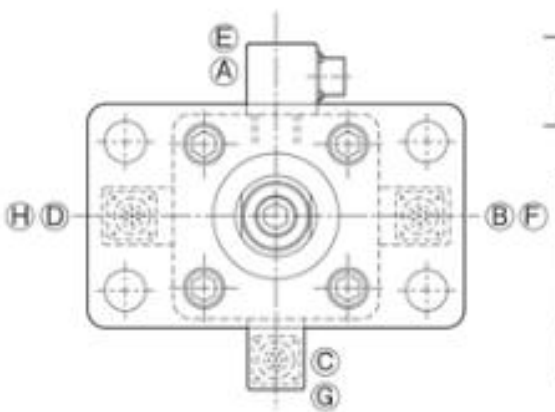
A,B,C,D,0

Sensor symbol
Note)
Select the applicable sensor type from the sensor list.

❗Notes on ordering Switch Set
- If you do not need sensors, specify "00" for the sensor symbol and "0" for the sensor quantity.
- The cylinder will be supplied without the sensors fitted on the body.

1,2 to n

E,F,G,H



When requiring a cylinder having a non-standard stroke, separately consult us about the seal material.