

Pressure sensor (pressure transmitter) ETP



- Converts output signals which use strain gauges from the pressure-sensing area by a electronic circuit for output of analogue voltage or current.

Model Code

ETPP-H1-HLD-W-(C)-11

1 2 3 4 5 6 7 8 9

1 Electronic pressure sensor

2 Mounting thread
P: R1/4

3 Pressure sensing range

L1: 0 to 1 MPa
L: 0 to 10 MPa
M: 0 to 20 MPa
H: 0 to 35 MPa
H1: 0 to 50 MPa

4 Rated power supply voltage

H: DC24V
G: DC±15V
E: DC15V

5 Output ratings

See table 3 in "Specifications"

6 Accuracy

See table 4 in "Specifications"

7 Cap

W: with water proof cap

8 Calibration switch

Omit: momentary switch

C: toggle switch, self-holding type

9 Design no.

Specifications

● Sensing, Output

Table 1

Pressure Sensing Range Code	MPa	Rated Pressure MPa
L1	0~1	1
L	0~10	10
M	0~20	20
H	0~35	35
H1	0~50	50

Table 2

Code	Rated Power Supply Voltage	Consumption Current (at no load)
H	DC24 V ±15%	35 mA
G	DC±15 V ±5%	30 mA
E	DC15 V ±5%	30 mA

Table 3

Code	Output Ratings	Calibration Signal Output
H	0~10V DC (Min. load resistance 10 kΩ)	10 V
L	0~5V DC (Min. load resistance 10 kΩ)	5 V
A	4~20 mA DC (Max. load resistance 350 Ω)	20 mA

Table 4

Code	Accuracy (*1)	Temperature Characteristics
C (*2)	±0.25 % F.S.	±0.025 % F.S./°C
D	±0.5 % F.S.	±0.05 % F.S./°C

Note: *1: Accuracy includes linearity, repeatability, and hysteresis.

*2: Accuracy code 'C' applicable for pressure sensing range codes L and M only.

Response: less than 5ms

Voltage fluctuations effect: less than + 0.1%F.S. of rated voltage

● Environment, Construction

Operating temp.: -20~+70°C (Accuracy guaranteed range 0~+70°C)

Allowable humidity range: 5~95%RH

Insulation resistance: Above 100 MΩ (at DC500 megaV)

Voltage resistance: AC350 V 1 min.

Vibration resistance: JIS D 1601 steps 70 X, Y, Z direction 4H

Shock resistance: JIS C 0912-1984 196 m/s² X, Y, Z direction

Cycle durability: above 10⁷ times

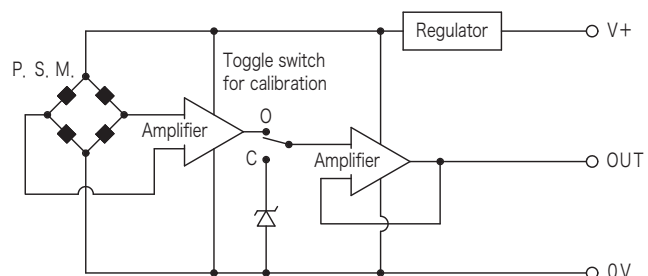
Water resistance: splash proof (JIS C 0920)

Wetted surface material: SUS630 or SUS316

Weight: 320 g

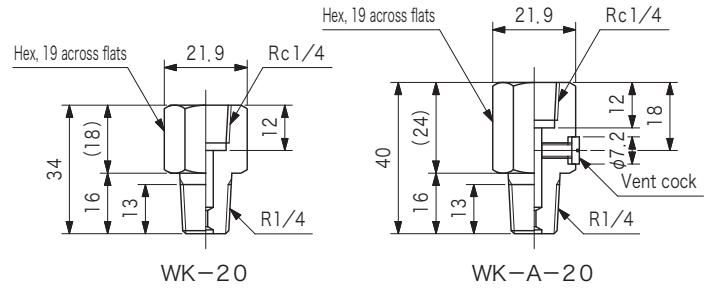
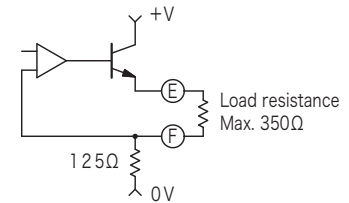
● Internal circuit

Power supply: H type

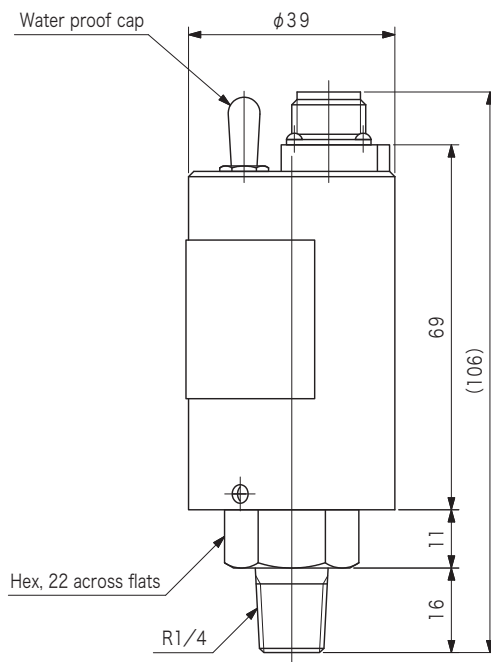
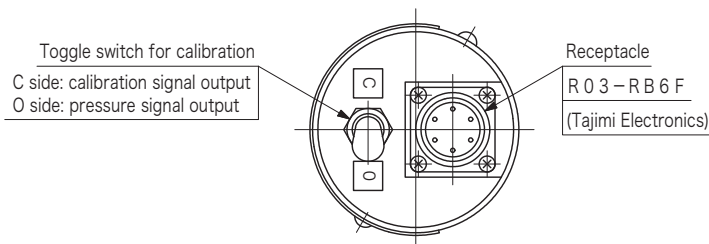


Notes on Operation

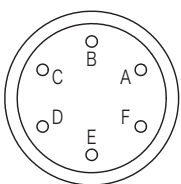
- Pressure is adjusted prior to shipment from factory. As such do not touch trimmer and electronic parts inside of cover.
- 4~20mA output circuit (floating constant load current type) is shown at right. Output remains constant regardless of fluctuation in load resistance.
- Special cord with connector (5 core cable, outer dia. $\phi 6.2$, wire dia. 0.18mm^2)
 CAY- 2-10: cord length 2 m
 CAY- 3-10: cord length 3 m
 CAY- 6-10: cord length 6 m
 CAY- 10-10: cord length 10 m
 CAY- 20-10: cord length 20 m
- In the hydraulic circuit, a surge pressure may occur for extremely brief periods of time. In order to protect the pressure sensor, it is recommended that a coupling with a restrictor be used concurrently.



Dimensions



Receptacle Interface



Note: Connection plug, R04-P6M
(Tajimi Electronics) Water proof type

0 ~ 5.0 ~ 10V Output

Pin Code	Cable Color	DC24 V	DC15 V
A	Red	+24V (power)	+15V (power)
B	Blue		-15V (power)
C	White	0 V	0 V
D			
E	Green	Output	Output
F			

4 ~ 20 mA Output

Pin Code	Cable Color	DC24 V	DC15 V
A	Red	+24V (power)	+15V (power)
B	Blue		-15V (power)
C	White	0 V	0 V
D			
E	Green	Output (+)	Output (+)
F	Yellow	Output (-)	Output (-)