



TP01

Temperature Transmitter(2-Wire RTD Head-Mounting Type)



## | Features |

- High quality, good anti-interference, high cost performance
- Large round head installation
- Temperature range : -50 ... 400°C
- 4 ... 20 mA
- ZERO / SPAN adjustable
- Polarity protection ; Over-voltage ; Short-circuit

## | Introduction |

- Linearised temperature measurement with Pt100 sensor
- To avoid temperature signal attenuation during long-distance transmission, it converts Pt100 into standard analog current output DC 4 ... 20 mA(2-wire)
- In this way, a stable and accurate figure can be collected and shown on the display of terminal instrument. The instrument includes PLC, digital display, industrial computer, etc

## | Applications |

Integrated with thermocouple / Cooling system / Environment / Agriculture /  
Air conditioning engineering / Heating engineering / Storage tank / Equipment

## Specification

### Input

Input signal	RTD Pt100 $\Omega$ (3-wire)
Cable resistance	$\leq 50 \Omega$ (3 wires with the same resistance)
PT100 $\Omega$ sensor current	$< 0.8 \text{ mA}$
ZERO adjustment range	$\pm 10\%$
SPAN adjustment range	$\pm 10\%$

### Output

Signal	DC 4 ... 20 mA(2-wire)
Load resistance	$\leq (\text{Supply voltage} - 8 \text{ V}) / 0.02 \text{ A } \Omega$
Load resistance stability	$\pm 0.05\% / 100 \Omega$
Pt100 $\Omega$ signal disconnection protection & output	$> 23 \text{ mA}$

### Accuracy

Accuracy	$\pm 0.1\%$ of F.S.
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### Temperature

Temperature drift	$< \pm 0.015\% \text{ F.S.} / ^\circ \text{C}$
Calibration temperature	20 ... 28 $^\circ \text{C}$
Response time	$< 250 \text{ ms}$

### Environmental

Medium	Air
Operating Temp.	-20 ... 60 $^\circ \text{C}$
Operating Humid.	0 ... 95%RH(Non-condensing)

### Electrical

Power supply	DC 10 ... 30 V
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### Protection

IP rating	Housing : IP30 / Terminal : IP10
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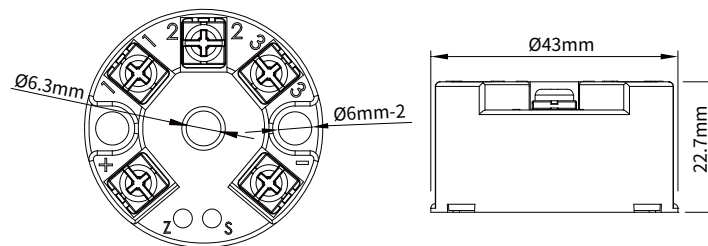
### Certification

Certification	CE
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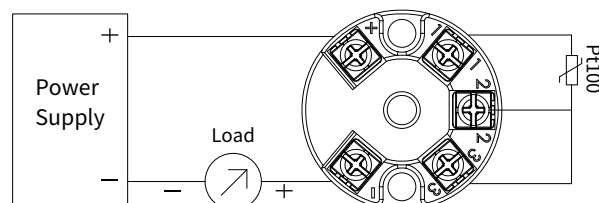
### Material

Housing	ABS(UL94V-0)
Weight	40g

## Dimension



## Connection Diagram



## | Ordering Guide |

Product ordering number	Product Specifications
TP01-11	I/P : PT100Ω, O/P : 4 ... 20 mA, -50 ... +50°C
TP01-13	I/P : PT100Ω, O/P : 4 ... 20 mA, 0 ... 50°C
TP01-14	I/P : PT100Ω, O/P : 4 ... 20 mA, 0 ... 100°C
TP01-1W-150	I/P : PT100Ω, O/P : 4 ... 20 mA, 0 ... 150°C
TP01-15	I/P : PT100Ω, O/P : 4 ... 20 mA, 0 ... 200°C
TP01-1W-300	I/P : PT100Ω, O/P : 4 ... 20 mA, 0 ... 300°C
TP01-1W-400	I/P : PT100Ω, O/P : 4 ... 20 mA, 0 ... 400°C

## | Additional Option Test Report |

For more detailed information please contact us.

### ■ ILAC / TAF

YUDEN-TECH CO.,LTD. Calibration Laboratory - ( ILAC / TAF ) Test report.

(TAF accreditation : 3032, complying with ISO / IEC 17025 ) TAF has mutual recognition arrangement with ILAC MRA

Project	Measurand level or range
Resistance thermometer	-40°C ... +300°C
Thermocouple thermometer	-20°C ... +300°C

※Need to cooperate with Pt100 temperature sensor

### ■ ISO 9001

Project	Measurand level or range
RTD / Thermocouple	Resistance thermometer : -40°C ... +300°C
	Thermocouple thermometer : -20°C ... +300°C