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## General Type Temperature Transmitter

**Model :** T990 (Head mounting type)  
T990 (Head mounting type)

**WISE  
SENSOR**

### Advantages

- Two wire 4-20 mA current output signals
- RTD input (T990)
- Multi input (T900)
- Excellent accuracy and long term stability
- Low - cost

### Applications

These are recommended in applications requiring amplification of signals to carry to a long distance or guard against heavy field electrical noise. The transmitter converts inputs to an analog signal for direct interface with indicators, recorders, controllers, PLC, DCS systems can be used for a wide range of applications in process control, automatic machinery and hydraulic or pneumatic system design.



**T990 / T900**

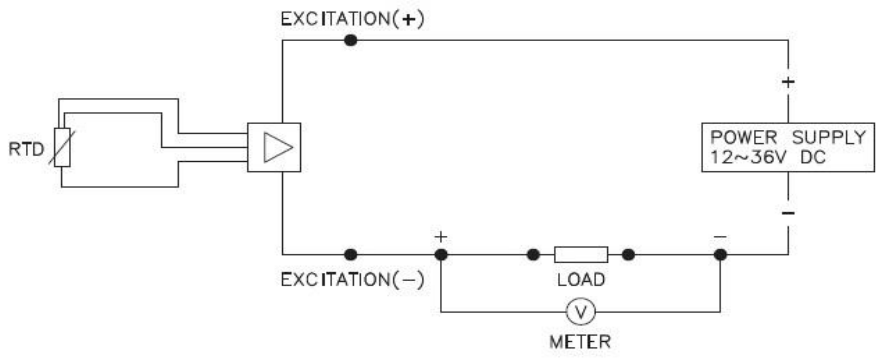
### Descriptions

T9x0 series temperature transmitters are designed to fit into standard molded terminal heads used on RTD & multi input assemblies to provide a 4~20 mA transmission signal. It is a cost effective solution for all temperature measurement and accurate, durable and reliable. Numerous configurations for measurement in many different mediums are offered. Generally the transmitter produces a linear 4~20 mA output carried on a two-wire system. The transmitter is supplied factory calibrated, but also has zero and span potentiometers for field adjustment or calibration.

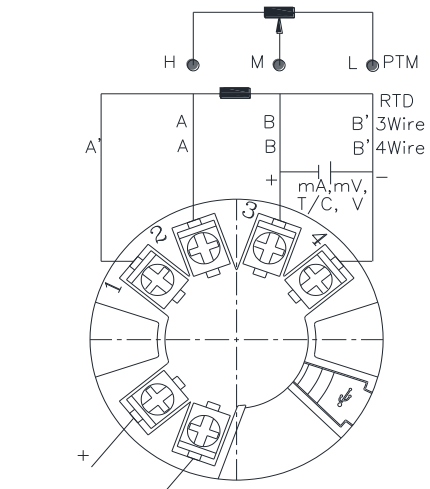
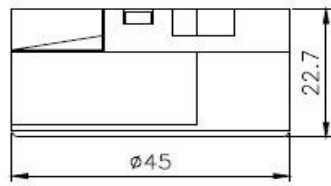
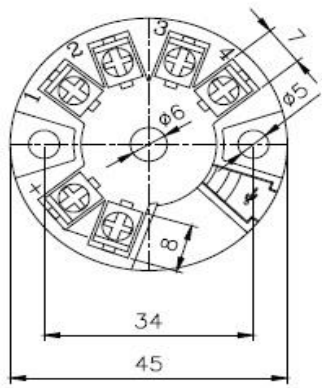
## Specification

Input		
Measuring range	Pt100 ohm, JIS-C-1604-1981	
	Thermocouple Type "B", 100 ~ 1820°C (Only T900)	
	Thermocouple Type "E", -200 ~ 1000°C (Only T900)	
	Thermocouple Type "J", -200 ~ 1200°C (Only T900)	
	Thermocouple Type "K", -200 ~ 1370°C (Only T900)	
	Thermocouple Type "N", -200 ~ 1300°C (Only T900)	
	Thermocouple Type "R", 0 ~ 1760°C (Only T900)	
	Thermocouple Type "S", 0 ~ 1760°C (Only T900)	
	Thermocouple Type "T", -200 ~ 400°C (Only T900)	
	mV DC, 0 ~ 999mV (Only T900)	
	V DC, 0 ~ 10V (Only T900)	
	mA DC, 0 ~ 30mA (Only T900)	
Dedicated loader allows you to change input types and scope of use. (Only T900)		
Output		
	Current output	
Electrical connection type	2-wire technique	
Full scale output signal	20 mA $\pm$ 0.2%	
Zero measured output	4 mA $\pm$ 0.03%	
	Other output signals available on request	
Electrical Specification		
Excitation voltage	18~30 V DC	
Load resistance max @ 24V	500 $\Omega$ at 24V	
Influence of excitation	0.01% FSO/V	
Burnout	Upscale(approx. 23 mA DC) or downscale(approx. 4 mA DC)	
Reverse polarity	Protected	
Shock resistance	No change in performance after 10Gs for 11ms	
Vibration	5 g (10 ~ 2000 Hz)	
Response time(10~90%)	$\leq$ 0.5 seconds	
Adjustment range	$\pm$ 15% FSO/zero and span	
Performance Specification		
Accuracy	$\leq$ $\pm$ 0.2% FSO	
Non-linearity	Better than 0.10% FSO	
Repeatability	Better than 0.05% FSO	
Long term stability	Better Than 0.05% FSO per month	
Cutoff frequency(-3 d B)	$\pm$ 2 kHz	
Ambient temperature range	-20 ~ 70 °C	
Ambient humidity limits	5 to 100% R.H	
Physical Specification		
Material	Case	ABS resin
	Cover	ABS resin
Dimension	45(W) x 22.7(H) mm	
Mounting	2 x M3 screw	
Weight	100 g max	

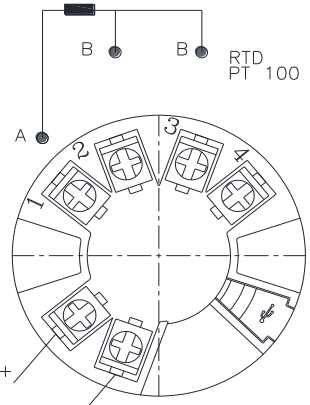
# System connection for 2-wire transmitter



## Dimension (mm) Electrical connection



**< T900 >**



**< T990 >**

## Ordering Information

### Head Mounting Type Temperature Transmitter

#### 1. Base model

T990										General temperature transmitter
T900										Multi input transmitter

#### 2. Input signal

JP										JIS standard (JPt 100 ohm)
PT										DIN standard (Pt 100 ohm)
TB										Thermocouple Type B (Only available T900)
TE										Thermocouple Type E (Only available T900)
TJ										Thermocouple Type J (Only available T900)
TK										Thermocouple Type K (Only available T900)
TN										Thermocouple Type N (Only available T900)
TR										Thermocouple Type R (Only available T900)
TS										Thermocouple Type S (Only available T900)
TT										Thermocouple Type T (Only available T900)
MV										mV DC (Only available T900)
VV										V DC (Only available T900)
MA										mA DC (Only available T900)

#### 3. Measuring range

10										0 ~ 100 °C
15										0 ~ 150 °C
20										0 ~ 200 °C
30										0 ~ 300 °C
50										None standard range

T990	PT	10								Sample ordering code
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Specifications subject to change without notice