

TR160 ECONOMICAL SERIES TEMPERATURE TRANSMITTER OPERATION MANUAL



Thank you for purchasing this Fine-Tek product. Please read the user's manual first and be familiar with the product performance and each function before use. Please keep the user's manual for reference in future.

Warning

1. Make sure the screw terminals are properly tightened. If the screws drop out, it could cause fire or mechanical breakdown.
2. Don't use this product in explosive or flammable gas environment; due to risk of explosion.
3. Don't disassemble, repair or modify the product without authorization, this may cause short circuit, fire or malfunction.
4. Avoid dropping metal fragments or lead wire scraps inside the product. This may cause short circuit, fire or malfunction.
5. Grounded type thermocouple should be selected isolating TR.

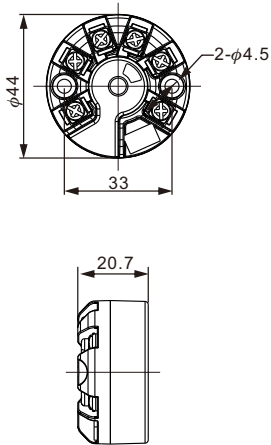
ENVIRONMENTAL CONDITIONS

- a) Indoor use
- b) Altitude up to 2 000 m
- c) Temperature 5°C to 40°C
- d) Maximum relative humidity 80 % for temperatures up to 31°C decreasing linearly to 50 % relative humidity at 40 °C;
- e) Over voltages category II
- f) Pollution degree II.

SPECIFICATIONS

- Supply Voltage: Loop Power 18~36 Vdc
- DCV Input: 0~100 mV
- Thermocouple Input: K / J / T / E / R / S / B / N
- RTD / Resistance Input: PT100 / 0~400Ω
- Analog Output: 4~20mA (Loop Power)
- Accuracy: 12 bits
- Operational Temperature: -40~85°C
- Warm Up Time: 10 minutes

DIMENSIONS



(Unit: mm)

Highly recommend using M4×25L screw for fixing.

GENERAL VALUES

Input Type	Range	Accuracy*
All Type	By Type	$\leq \pm 0.1\%$

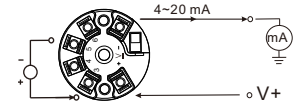
BASIC VALUES

Input Type		Unit	Accuracy*	Temperature coefficient (% / °C)
Voltage		-10~100mV	± 0.1mV	± 0.1%
Thermocouple	B	250~1820°C	± 4°C	± 0.3%
	E	-200~1000°C	± 3°C	± 0.3%
	J	-210~1200°C	± 3°C	± 0.3%
	K	-200~1370°C	± 3°C	± 0.3%
	N	-200~1300°C	± 3°C	± 0.3%
	R	-50~1760°C	± 3°C	± 0.3%
	S	-50~1760°C	± 3°C	± 0.3%
	T	-200~400°C	± 2°C	± 0.3%
Resistance		0~400Ω	± 0.4Ω	± 0.1%
PT100		-200~850°C	± 1°C	± 0.1%
PT100		ΔT 300°C	± 0.5°C	± 0.1%

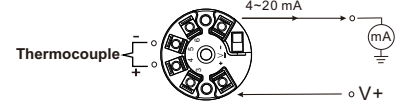
Cold junction compensation : $\leq \pm 1^\circ\text{C}$
※ Accuracy at 25°C

TERMINAL CONNECTION

1. V and mV to 4~20 mA



2. Thermocouple to 4~20 mA



3. PT100 and Resistance to 4~20 mA

