

TP3

5 channel digital indicator

- Indicates 5 contacts temperature with 1 instrument
- Temperature deviation compensation function in each channel
- Channel fix/channel automatic switch selection
- Automatic switching time selection in each channel



A
Temperature
Controller

Suffix code

Model	Code	Description
TP3-	☐ ☐	5 channel indication thermometer 96(W) X 48(H)
Input	K	K thermocouple
	J	J thermocouple
	P	Resistance Temperature Detector(RTD) Pt 100 Ω (IEC)
Power supply voltage	P4	100 – 240 V AC 50 – 60 Hz

Specification

Input

Input	by the suffix code (same input 5 contacts)
Thermocouple	K, J
RTD	Pt100 Ω (IEC)
Input sampling time	500 ms
Input display resolution	Usually less than 1 $^{\circ}\text{C}$
Input impedance	Thermocouple and DC voltage input (mV) : 1 M Ω min, DC rated voltage(V) : approx. 1 M Ω
Allowable signal source resistance	Thermocouple (250 Ω max), DC voltage (2 k Ω max)
Allowable wiring resistance	RTD 10 Ω max (but resistances among 3 wires should be same)
Allowable input voltage	Within ± 10 V (thermocouple, RTD, DC voltage(mV)), within ± 20 V (DC voltage(V))
Input compensation	Compensation by internal parameter
Cold junction compensation error	± 2.0 $^{\circ}\text{C}$ (0 ~ 50 $^{\circ}\text{C}$)

Performance

Display accuracy	Thermocouple	$\pm(0.5\%$ of indicated value ± 1 Digit) or ± 3 $^{\circ}\text{C}$ (bigger one)
	RTD	$\pm(0.5\%$ of indicated value ± 1 Digit) or ± 2 $^{\circ}\text{C}$ (bigger one)
Insulation resistance	20 M Ω min(500 V DC)	
Dielectric strength	2000 V AC 50 / 60 Hz for 1 min (between the different recharging part) from each other	

General specification

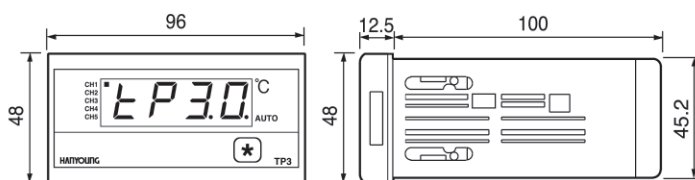
Power Supply Voltage	100 – 240 V AC 50 – 60 Hz
Voltage fluctuation	±10 % of power supply voltage
Power consumption	5 VA max
Ambient temperature	0 ~ 50 °C
Ambient humidity	35 ~ 85% RH (without dew condensation)
Storage temperature	-25 ~ 65 °C
Vibration resistance	10 – 55 Hz, peak amplitude 0.76 mm for 2 min each in 3 axis direction
Shock resistance	300 ㉫, to the 6 direction each 3 times
Weight	400 g

Range and input code chart

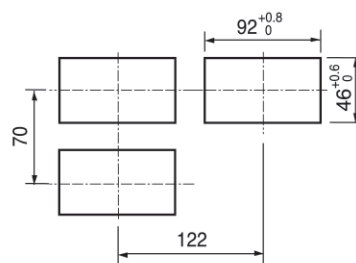
Classification	Code	Input type	Range(°C)	Accuracy
Thermocouple	K	K	-50 ~ 1,200	±(0.5% of indicated value ±1 Digit) or ±3 °C (bigger one)
	J	J	-50 ~ 800	
RTD	P	Pt100 ㉫	-100 ~ 400	±(0.5% of indicated value ±1 Digit) or ±2 °C (bigger one)

Dimension and panel cutout (Unit : mm)

● Dimension



● Panel cutout



Connection diagram

