GENTEK Elektronik

D248 TEMPERATURE TRANSMITTER MODULE

TECHNICIAL SPECIFICATIONS

Used For	RTD, TC, Ohm, mV
Power Supply	10 - 32 VDC
Output	0.01 °C (RTD)
	0.1 °C (E J K N T)
	0.2 °C (B R S)
Accuracy	0.01 °C (RTD)
	0.5 °C (E J K N T)
	0.2 °C (B R S)
Load Resistance	≤ (U - 10) / 0.22
Relavite Humudity	10%-90 %rH
Operating Temperature	-40 °C / +85 °C
Mounting Hole Pitch	D = 33mm
Weight	About 35g

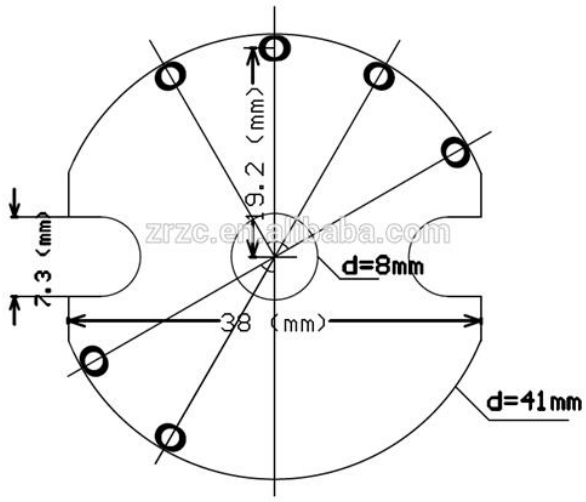
GENERAL

1. High reliability and exceptional EMC performance: Built-in multi-level protection circuit for high reliability.
2. High-voltage isolation: As high as 1000V for the isolation voltage between metal capacitance sensor processing circuit and main vircuit.
3. Gentek communication protocol: PC programmable.
4. High performance-price ratio: Gentek digital bus communication, low price, high precision, good quality.
5. Easy to install and reliable with unique design.
6. Gentek protocol is a proprietary communication protocol developed by our company, based on the voltage modulation. Similar as HART communication protocol.

CODE SELECTION TABLE

TECHNIC DRAWING AND PRODUCT DRAWINGS

Signal Type		Measurements Range	Minimum Range	Output Accuracy
Thermocouples (TC)	T	-200~400℃	25℃	±0.4℃/0.2%
	E	-200~1000℃	25℃	±0.4℃/0.2%
	J	- 210~1200℃	25℃	±0.4℃/0.2%
	K	-200~1372℃	25℃	±0.4℃/0.2%
	N	-200~1300℃	25℃	±0.4℃/0.2%
	R	0~1768℃	100℃	±0.8℃/0.2%
	S	0~1768℃	100℃	±0.8℃/0.2%
	B	150~1820℃	100℃	±1.0℃/0.2%
mV input		-120~120mV	10mV	±10μV /0.2%
		-1000~1000mV	50mV	±100μV /0.2%
Resistance Temperature (RTD)	Pt50	-200~850℃	10℃	±0.15℃/0.2%
	Pt100	-200~850℃	10℃	±0.15℃/0.2%
	Pt500	-200~850℃	10℃	±0.1℃/0.2%
	Pt1000	-200~850℃	10℃	±0.1℃/0.2%
Ohm input		0~500 Ω	100Ω	±0.2 Ω/0.2%
		0~4500 Ω	100Ω	±1.0 Ω/0.2%



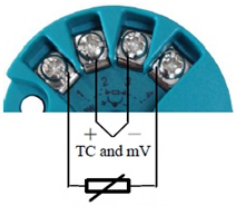
RTD and Ω Connections Diagram


2-wire RTD and Ω

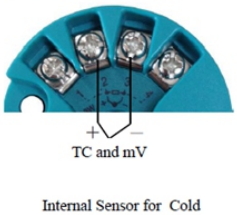

3-wire RTD and Ω


4-wire RTD and Ω

TC and Millivolt Connections Diagram



PT100 for Cold Junction Compensaton

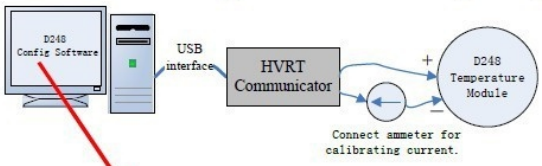


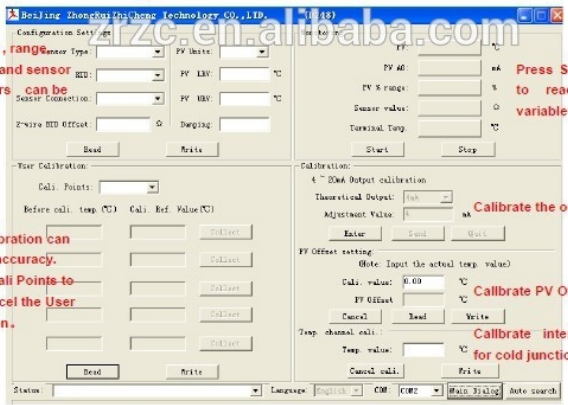
Internal Sensor for Cold Junction Compensaton

Configuration and Calibration

Must use the HVRT Communicator to calibrate and set the parameters in the computer ! ! !

The HVRT Communicator can directly power the D248 without using external power.





The units , range, damping and sensor parameters can be set here.

Press Start button to read real-time variables.

Calibrate the output current .

Calibrate PV Offset.

Calibrate internal temperature for cold junction compensation.

User Calibration can improve accuracy. Setting Cali Points to 0 will cancel the User Calibration.