

PCT382 Isolated HART Temperature Transmitter

Features

- Can convert all inputs to 4-20mA
- Input: thermocouple, RTD, resistance
- HART protocol
- Build-in cold junction compensation
- Available with screw-in temperature probe

Applications

- Equipment support
- Automatic Temperature measurement and control systems such as pumps, compressors, natural gas pipelines, etc
- Temperature measurement of water or oil in petroleum, chemical, electric power, textile, and environmental protection fields, etc.



Product overview

PCT382 isolated HART intelligent temperature transmitter (round card) is used for the signal input of resistance temperature detector (RTD) and thermocouple (TC) and 4 - 20mA analog output of the two-wire system, and can be installed in the sensor(Form B) through the HART protocol configuration.



- 1 When measuring temperature, the temperature measuring element should reach thermal equilibrium with the measured object.
- 2 Make sure the insertion length is accurate.
- 3 Please read the Instruction Manual of the product carefully before installation and check the relevant information of the product.
- 4 Strictly follow the wiring method for wiring, otherwise it may cause product damage or other potential faults.
- 5 Misuse of the product may cause danger or personal injury.



- 1 Do not misuse documentation
- 2 The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- 3 Complete installation, operation, and maintenance information is provided in the instructions of the product.
- 4 Misuse of the product may cause danger or personal injury.

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W V Sensor						
Technical Parameters						
Input signal	Resistance temperature detector (RTD), Thermocouple (TC)					
Cold-junction compensation	-20℃~60℃					
temperature scope						
Compensation precision	±1℃					
Output signal	4-20mA, overlaid HART protocol					
Load resistance	RL≤(Ue-12)/0.021					
Output current of upper & lower	IH=21mA, IL=3.8mA					
limit overflow alarm						
Supply voltage	DC12-40V					
Temperature drift	0.0075%FS/℃					
Response time	700ms (up to 90% of the final value)					
Used environmental temperature	-40∼80℃					
Storage temperature	-40~100℃					
Insulation strength (between input	1500Vrms (1 min, without spark)					
and output)	1000 viiilo (1 iiiiii, without Spanty)					
Insulation resistance (between	\geq 100M Ω (under the 500 VDC)					
input and output)	> 100141 -5 (dilidol tillo 000 VDO)					
Vibration resistance	4g/2~150Hz					
Installation angle	Unlimited					
Installation area	B-type top cassette installation					
Electromagnetic compatibility	Conform to GB/T18268 industrial equipment application requirements (IEC 61326-1)					

Input Type and Transmission Accuracy					
Model	Туре	Measurement	Minimum	Conversion	
		scope	measurement scope	accuracy	
Resistance	Pt100	-200∼850℃	20℃	±0.1%range Or±0.2℃	
Temperature detector (RTD)	Cu50	-50∼150℃	20℃	±0.1%range Or±0.2℃	
Thermocouple (TC)	В	100∼1820℃	500℃	±0.1%range Or±1.5℃	
	Е	-100∼1000℃	50℃	±0.1%range Or±0.5℃	
	J	-100∼1200℃	50℃	±0.1%range Or±0.5℃	
	K	-180∼1372℃	50℃	±0.1%range Or±0.5℃	
	N	-180∼1300℃	50℃	±0.1%range Or±0.5℃	
	R	-50∼1768℃	500℃	±0.1%range Or±1.5℃	
	S	-50∼1768℃	500℃	±0.1%range Or±1.5℃	
	Т	-200∼400℃	50℃	±0.1%range Or±0.5℃	

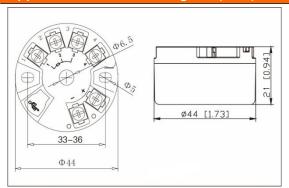
Notes:

- 1. The above accuracy data was obtained by testing at an ambient temperature of 20 °C ± 2 °C.
- 2. The output precision "%" is relative to the set range.
- 3. The cold end compensation error needs to be added to the thermocouple measurement, and the internal cold end compensation error is ≤±1°C

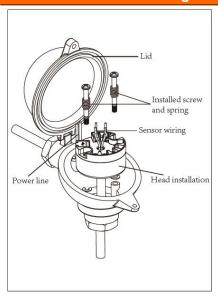
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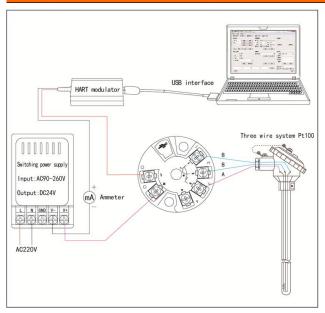
Appearance Structure Diagram (mm)



Installation Schematic Diagram

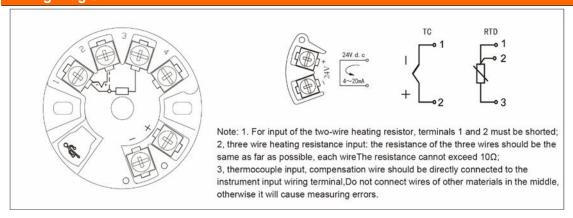


Configuration Schematic Diagram

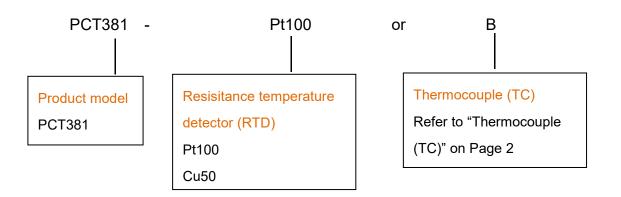




Wiring Diagram



How to order



Wotian reserves the right to make any change in this publication without notice. The information provided is believed to be accurate and reliable as of this product sheet.

Contact us

Nanjing Wotian Technology Co.,Ltd.

Website: www.wtsensor.com

Add: 5 Wenying Road, Binjiang Development Zone, Nanjing, 211161, China

E-mail:dr@wtsensor.com