

PCT002 Thermocouple Temperature Transmitter

Features

- Temperature measurement range
- Easy installation
- High temperature measurement accuracy
- Long-term stability
- Long life cycle

Applications

- Electric power, aerospace industry
- Temperature measurement in textile, food and other fields
- Atomic energy, petroleum, chemical

Notes:

- 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.



Product overview

PCT002 thermocouple, matched with display instrument, can perform temperature measurement in the temperature range of $-200 \sim 1600 \text{ }^{\circ}\text{C}$. It consists of two homogeneous conductors (electrodes) with different chemical compositions. When there is a temperature difference between the two ends of the gear, an electromotive force is generated between the two ends, and a current will flow through the circuit. This phenomenon is called a non-temperature difference electric phenomenon. On the potentiometer, the value of the thermoelectromotive force will be displayed. Widely used in aerospace, atomic energy, petroleum, chemical, metallurgy, machinery and other departments and scientific and technological fields.

Notes:

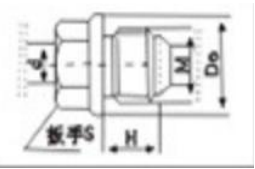
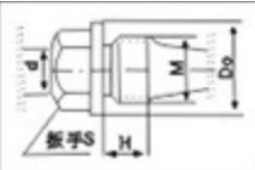
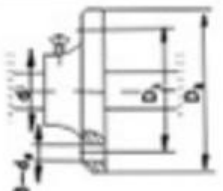
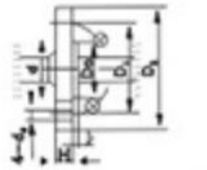
- 1 Do not misuse documentation.
- 2 The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- 3 Complete installation, operation, and maintenance information is provided in the instructions of the product.
- 4 Misuse of the product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

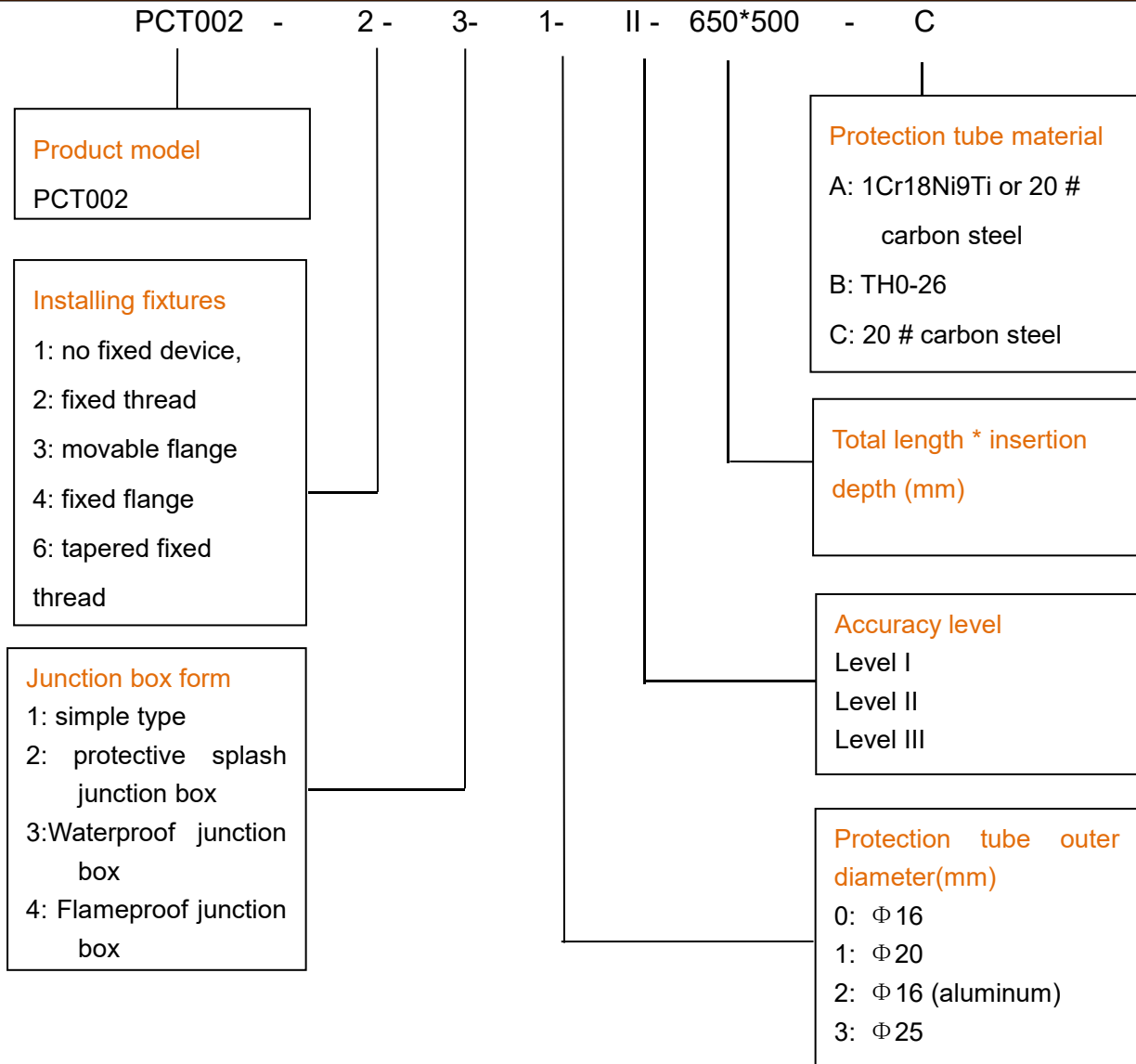
Technical Indicators

Thermocouple	I level		II level		III level	
	Measurement ranges °C	Tolerance °C	Measurement ranges °C	Tolerance °C	Measurement ranges °C	Tolerance °C
Platinum armor 10-Pa	0~1600	1.0or± {1+0.03 (t-1100) }	0~1600	± 1.5 or± 0.25%t	/	/
Platinum armor 13-pa	0~1600		/		/	
Platinum armor 30-armor platinum 6	/	/	600~1700		600~1700	±4.0or ±0.5%t
NiCr-NiSi	-40~1100	± 1.5or ±4.0%t	-40~1300	± 2.5 or± 0.75%t	-200~400	±2.5 or ±1.5%t
NiCrSi-NiSiMg	-40~1100		-40~1300		-200~400	
Nichrome-Constantan	-40~800		-40~900		-200~40	
Iron-constantan	-40~750		-40~750		/	/
Copper-constantan	-40~350	± 1.5or ±4.0%t	-40~350	± 1.0or± 0.75%t	-200~40	± 1.0or ± 1.5%t

Normal temperature insulation resistance		High temperature insulation resistance						Test voltage
		≥100°C <300°C	≥300°C <500°C	≥500°C <850°C	≥850°C <1000°C	≥1000°C <1300°C	≥1300°C	
L≤1m	≥1m							500±50V
100 MΩ	100M Ω	10 MΩ	2MΩ	0.5 MΩ	0.08 MΩ	0.02 MΩ	0.02 MΩ	

Material	Outer diameter mm	Response time T0.5s	Length (mm)	
Not Metal	Φ 16	≤240	300, 350,400, 450, 550, 650, 900, 1150,1850, 2150	
	Φ 25	≤300	550, 650, 900, 1150, 1850, 2150	
Metal	Φ 16	≤180	300, 350, 400, 450, 550, 650, 900, 1150, 1650, 2150, 2650	
	Φ 20	≤240		
	Cone	≤300	225, 250, 300, 350, 400	
Right angle			500×500, 750×750, 500×750, 750×500	

Name	Structure Diagram	Size (mm)						Protection Tube		
		M	H	S	D	Φ(mm)	material	Pressure Mpa		
Fixed thread		M27×2	32	32	Φ 40	Φ16	1Cr18Ni9 Ti or 20 # carbon steel	≤10.0		
		M33×2	35	36	Φ 48	Φ20		≤1.0		
Conical fixed thread		M33×2	33	36	Φ 48	Cone	1Cr18Ni9 Ti	≤30.0		
Name	Structure Diagram	D1	D2	Do	do	H	h	Φ(mm)	material	Pressure Mpa
Movable flange		Φ54	Φ70	/	Φ 6			Φ12 Or Φ16	TH0-26	Under pressure
Fixed flange		Φ65	Φ95	Φ45	Φ 14	1 6	3		1Cr18Ni9 Ti or 20 # carbon steel	≤6.0
		Φ75	Φ105	Φ55				≤1.0		



Example: PCT002-2-3-1-II -650 * 500- C

The model is PCT002, 2: the installation and fixing device is fixed thread, 3: the junction box is waterproof 1: protection tube outer diameter is Φ 20 mm ,II: the accuracy class is II, 650 * 500 mm: total length (including insertion depth 500 mm) and C: the protective tube material is 20 # carbon steel.

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.

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