

DATASHEET

Temperature

Temperature Sensor For General Industrial Applications Model PWT4200 series

Applications

- Railway locomotives
- Coal & mine temperature monitoring
- Large workshop ovens temperature measurement
- Chemicals and oilfield
- Pipeline and ventilation system
- Cooling system and heating system
- Civil explosive applications

Features

- Digital signal output available
- Easy installation
- Choices for different structures
- Compatible for most industrial applications
- Customized within 500 °C
- Fast response and high accuracy
- Explosion proof available



Description


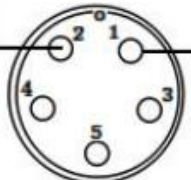

PWT4200 series temperature transmitters use semiconductor temperature sensors, platinum resistors, etc. as temperature sensitive components, and output standard industrial signals after temperature compensation, digital circuit correction and signal conditioning. Each product has been carefully designed, component selection, process verification and curing, cycle loading and aging, environmental simulation testing, etc. to ensure that each product is stable and reliable.

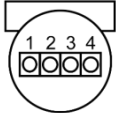
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Specifications

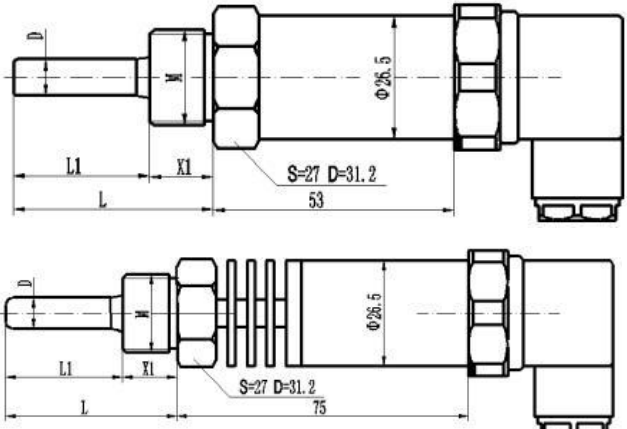
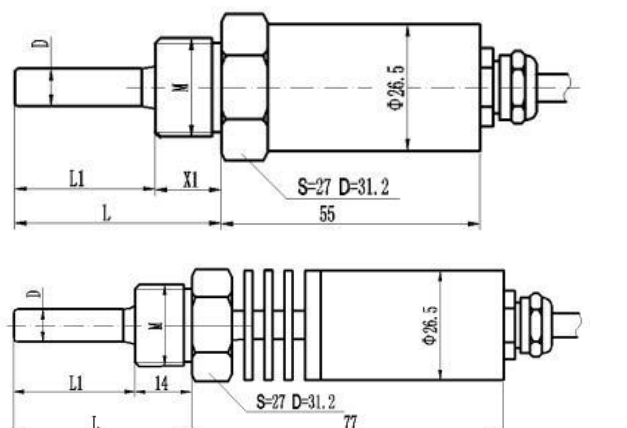
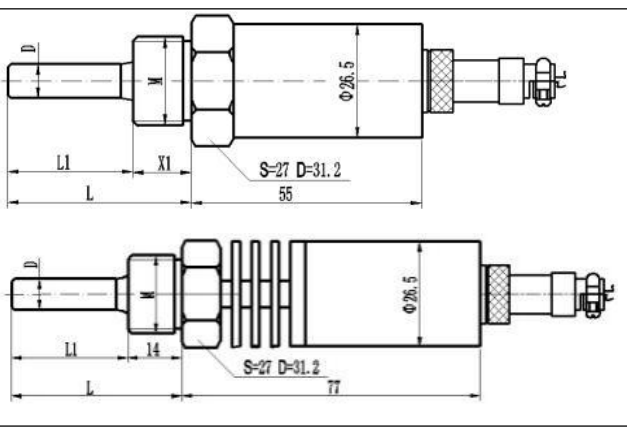
Model	PWT4200		
Sensor Type	PT100, PT1000		
Range	-60℃~+450℃ (optional)		
Accuracy(℃)	A: ±0.25 (customized)	B: ±0.5	C: ±1.0
Long-term Stability (%FS/year)	≤0.25	≤0.5	≤1.0
Working Voltage	15~30VDC (Calibration at 24VDC)		
Signal Output	4-20mA	0-10V	RS485 IIC
Working Environmental Temperature	-30~+60℃		
Load Resistance Ω (4-20mA)	$R \leq (U-15)/0.02 - R_D$ (U: Power supply, R_D : Internal resistance in the cable)		
Response Time	20s (10%~90%) (typical value)		
Medium Compatible	Liquid compatible with stainless steel SUS304 or SS316L		
Material of Housing	SUS304, SS316L		
Probe Material	SUS304, SS316L		
Protection Level	IP65		

Electrical Connection

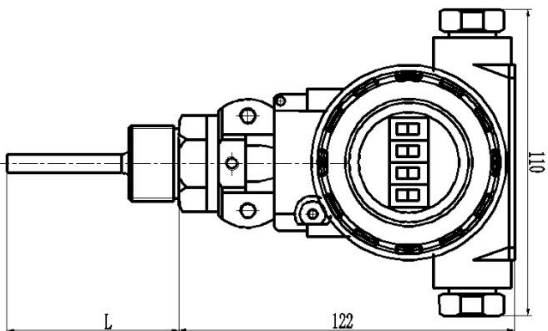
DIN43650 Hirschmann connector					
	Terminal	Current(2wires)	Voltage(3wires)	IIC(4wires)	RS485(4wires)
	1	Iout	Vcc	Vcc	Vcc
	2	Vcc	GND	GND	GND
	3	/	Vout	SCL	RS485A
	⊥	PE	PE	SDA	RS485B
5 pins connector					
	Terminal	Current(2wires)	Voltage(3wires)	IIC(4wires)	RS485(4wires)
	1	Vcc	Vcc	Vcc	Vcc
	2	Iout	GND	GND	GND
	3	/	Vout	SCL	RS485A
	4	/	/	SDA	RS485B
Directly outlet cable					
	Wire Color	Current(2wires)	Voltage(3wires)	IIC(4wires)	RS485(4wires)
	Red	Vcc	Vcc	Vcc	Vcc
	Green	Iout	GND	GND	GND
	Yellow	/	Vout	SCL	RS485A
	Blue	/	/	SDA	RS485B
	Black	PE	PE	/	PE
Industrial Terminals					

	Terminal	Current(2wires)	Voltage(3wires)	RS485(4wires)	IIC(4wires)
	1	Black PE	Black PE	Blue RS485B	Blue SDA
	2	/	Yellow Vout	Yellow RS485A	Yellow SCL
	3	Green Iout	Green GND	Green GND	Green GND
	4	Red Vcc	Red Vcc	Red Vcc	Red Vcc

Features and Drawings

PWT4200 Series		
Model	Features	Dimensions
PWT4201 PWT4201-HT	<ol style="list-style-type: none"> Hirschmann Terminal box Standard structure -50°C~+80°C (PWT4201) -50°C~+150°C (PWT4201-HT) with cooling device 	
PWT4202 PWT4202-HT	<ol style="list-style-type: none"> Waterproof connector Standard structure -50°C~+80°C (PWT4202) -50°C~+150°C (PWT4202-HT) with cooling device 	
PWT4203 PWT4203-HT	<ol style="list-style-type: none"> M12*4pins connector Standard structure -50°C~+80°C (PWT4203) -50°C~+150°C (PWT4203-HT) with cooling device 	

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PWT4209	1. LCD display 2. Explosion Proof 3. -60°C~+450°C	
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Signals & Power Supply

Type	Signal	Power Supply
Current(2 wires)	4-20mA	12-30VDC
Voltage(3 wires)	0-5V	6-24VDC
	0-10V	12-30VDC
I ² C(4 wires)	I ² C	3.3-5VDC
RS485(4 wires)	RS485	5-30VDC

How to Order

Example Part Number: 4209[-20~100]CBC3T1L50D6002

Model No.	PWT4201...PWT4209 Please choose according to above structures	4209
Temperature Range	-60℃~+450℃ Write directly in []	[-20~100]
Unit	C=℃	C
Accuracy	A: ±0.2℃ B: ±0.4℃ C: ±1.0℃	B
Process Connection	C1=G1/4" male C2=1/4"NPT male C3=G1/2" male C4=1/2" NPT male C5=M20x1.5 male CN=None C0=Customized	C3
Signal Output	T1=4mA~20mA T2=0V~10VDC T3=I2C T4=RS485 Modbus RTU	T1
Probe Length	L50=50mm LX=Customized	L50
Probe Diameter	D5=5mm D6=6mm D8=8mm DX=Customized	D6
Cable Length	000=Non-cable 001= 1m cable 002= 2m cable ...	000

*Means to order: Temperature sensor PWT4209, -20~100℃, ±0.4℃ accuracy, G1/2" male connection, 4-20mA signal output, probe 6*50mm, cable length is 0 meter.

****Tell us:**

medium/temperature range/signal output/probe dimension/electrical connector/process connection/accuracy/cable length... our sales engineer will recommend suitable model for you.