

CS-WPT300G Pressure and Temperature Integrated Transmitter

(Product Specification)

XI'AN CHINASTAR M&C LIMITED



Applications

- Maglev unit
- Cold water screw unit
- Water source heat pump unit
- Ground source heat pump unit
- Industrial refrigeration unit

Description

WPT300G pressure transmitter for refrigeration with fully welded structure is widely used in air conditioning, refrigeration and heat pump systems. Industry standard 4~20mA signal output, international electrical connectors and pressure ports, all-welded structure, anti-condensation, suitable for refrigerant pressure measurement. This product allows to control and ensure that the system operates under safe and stable conditions.

Features

- Pressure and temperature integrated transmitter
- Dual-channel 4 to 20mA output
- Silicon oil sensor
- Sealed Gage
- All welded construction, no O-rings, no leakage risk
- Anti-condensation water
- Forward and reverse overvoltage
- High precision



Performance Specifications

Temperature: 20°C~25°C; Power supply: 12VDC; Relative humidity: 45%~75%; ambient
atmospheric pressure: 86KPa~106KPa;

Pressure measuring range	-1...10~50bar (Sealed Gage)
Temperature measuring range	-40°C~125°C
Overload pressure	300%F.S (≤105bar)
Burst pressure	500%F.S (≤175bar)
Pressure accuracy at 25°C	±0.5%F.S (include no-linearity, hysteresis, repeatability, and calibration error) ^{Note1}
Temperature accuracy	±0.5%F.S
Long-term stability.	±0.25%FS/year
Response Time	≤10ms
Medium Temperature	-40°C~125°C
Ambient Temperature	-35°C~105°C
Storage Temperature	-35°C~105°C
Output Signal	4~20mA
Supply Voltage	10~30 VDC
Output Load	≤ (U-10)/0.023 Ω(Max: 600Ω)
Overvoltage	30VDC
Reverse Voltage	-30VDC
Insulate Resistance	≥100MΩ@100VDC
Dielectric Strength	500VDC@1min (no spark, arc, no damage)
ESD	Contact ±4kV, air ±8kV
EMC	EN 61000-6-2/3
IP Rating	IP65
Random Vibration	10g, 5~2000Hz
Shock	X/Y/Z, 20g, half-sine 11ms
Drop (any Axis)	1m
Pressure connector	G1/4、NPT1/4
	20mm; 50mm; 75mm ^{注2}
connector material	316L stain steel
Electrical connection	DIN43650A

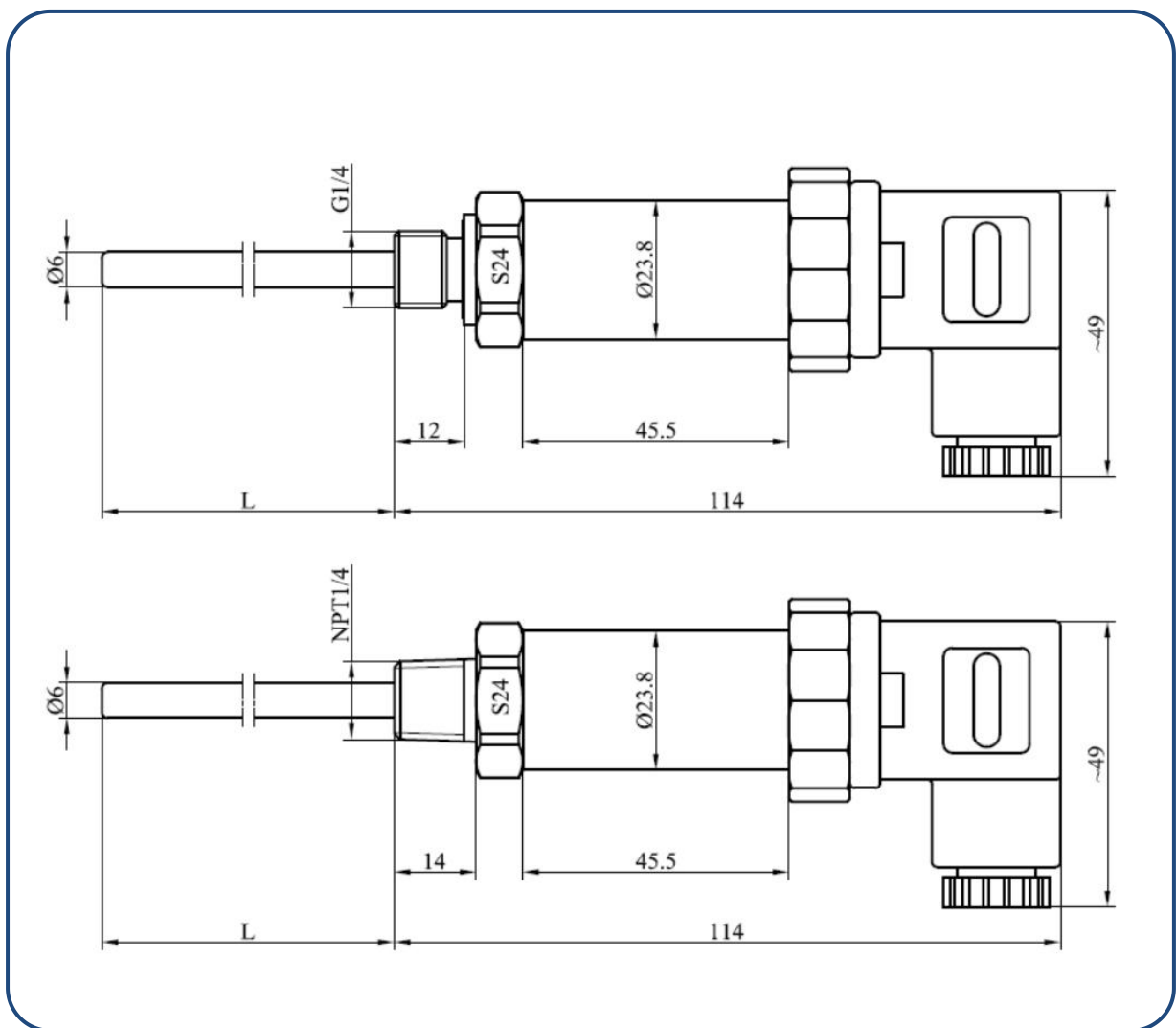


Seal material

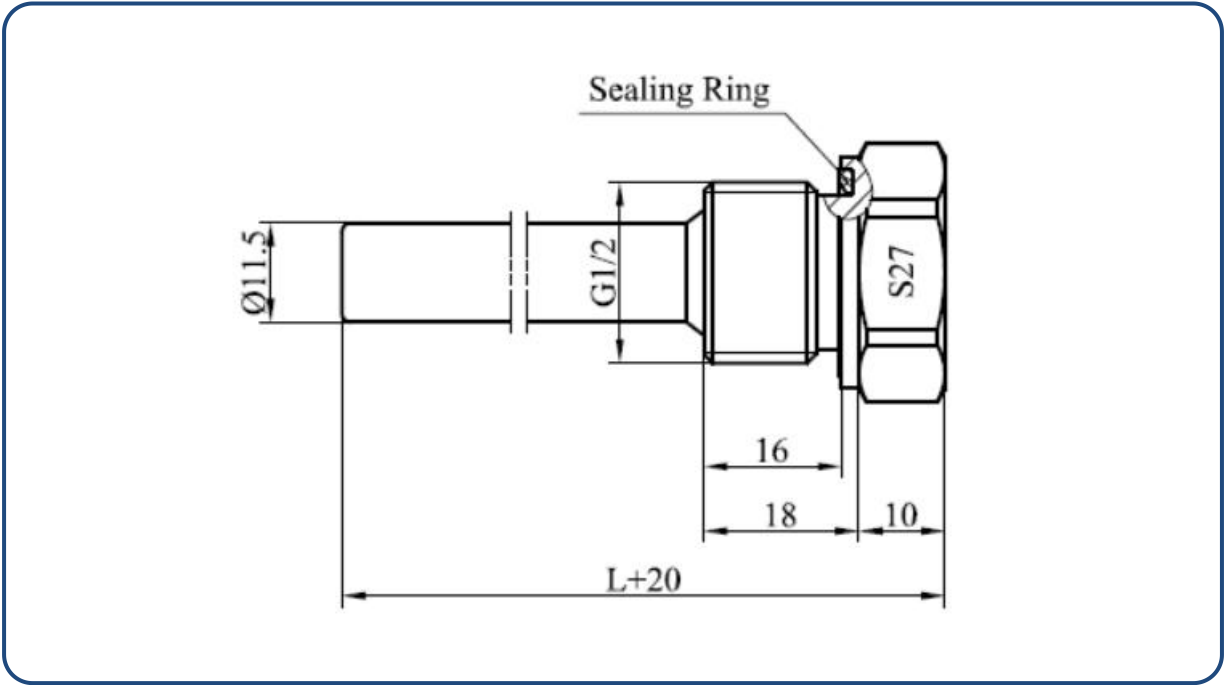
Same as connector material
(Sealing material of front end of Pressure connector: HNBR)

Note 1: 0barG=101.325kpaA (Define 1 atm as 0bar)

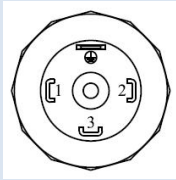
Note 2: When the length of the probe is greater than 50mm, it is recommended to add a probe protection sleeve to prevent damage to the probe due to the impact of the medium flow velocity on the temperature probe

Structure and Dimension (mm)

Probe rod protective cover



Electrical Connection

DIN43650A	Electrical connection definition		
	PIN	Define	Color of wire
	1	Power Supply (U+)	Red
	2	Pressure Output (Ipo)	Green
	3	Temperature output (Ito)	White
		Shield (PE)	Black



Model Selection Tips

WPT300G Series pressure and temperature transmitters

Code Measuring Range

X X stands for actual pressure measuring range

Y Y stands for actual temperature measuring range

Code Pressure Connection

G1/4(M) G1/4 (Male)

NPT1/4(M) NPT1/4(Male)

Code Probe length

20 20mm

50 50mm

75 75mm

Code Electrical Connection

D DIN43650A

Code Output

420 4 ~ 20mA

Code Power Supply

09 10 ~ 30VDC

Code Accuracy

05 ±0.5%

10 ±1.0%

WPT300G -X -Y -G1/4 (M) -50 -D -420 -09 -05

Notes

1. The transmitter must be used in a medium that is not corrosive to the sealing material and housing material.
2. When the pressure-guiding hole of the transmitter is blocked, it is strictly forbidden to use a sharp tool to clear the pressure-guiding hole. The transmitter should be removed and the pressure-guiding hole should be immersed in a liquid that can dissolve the blockage. After the blockage is dissolved, remove it fall out.
3. It is strictly forbidden to open the transmitter for calibration or maintenance by yourself.
4. If you are not sure whether the transmitter is suitable for the measurement medium used, please contact the factory.



5. The installation location of the transmitter should be selected in a place that is not easy to be bumped and stepped on.
6. Use beyond transmitter overload pressure may cause permanent damage.
7. Where there may be lightning, customers should consider lightning protection measures.

Disposal methods of hazardous wastes such as waste circuit boards and their components after the end of product life.

After the end of the product life, each part shall be distinguished according to the “National hazardous waste list” to determine whether it is hazardous waste. Among them, the waste lithium battery not disassembled is not hazardous waste, and the waste circuit board (including components, chips, plug-ins, pins, etc. attached to the waste circuit board) belongs to hazardous waste.

The part that is not hazardous waste shall be treated as general industrial solid waste, and the lithium battery shall be handed over to the nearby renewable resource recovery department or sent to the product manufacturer for recycling.

Hazardous wastes must be handed over to legally qualified departments for disposal in accordance with national regulations, and shall not be dumped or stacked without authorization. If it is really necessary to store temporarily, protective measures meeting the national environmental protection standards must be taken, and the storage period shall not exceed one year. At the same time, the time and place of temporary storage and the protective measures taken shall be reported to the competent environmental protection department. Hazardous waste transfer activities can be arranged according to the actual production situation. The system shall be strictly implemented in the transfer process

Statement

The company reserves the right to modify the specifications and contents of this manual. Subject to modification without notice. Due to the update of the product, the individual details of this document may not match the product, please refer to the actual product. The interpretation right of this document belongs to our company.

