

## CS-PT300G



### Applications

- Cold water screw unit
- Water source heat pump unit
- Ground source heat pump unit
- Industrial refrigeration unit
- Multi-line air conditioning
- Precision computer room air conditioning
- Interrow refrigeration air conditioning
- Air source heat pump

### Description

PT300G pressure transmitter for refrigeration with fully welded structure is widely used in air conditioning, refrigeration and heat pump systems. Industry standard 4~20mA or 0.5~4.5V 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

- 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: 20~25°C; Power supply: 12VDC (4~20mA), 5VDC(0.5~4.5VDC Ratio ); Relative humidity: 45%~75%; ambient atmospheric pressure: 86KPa~106KPa;

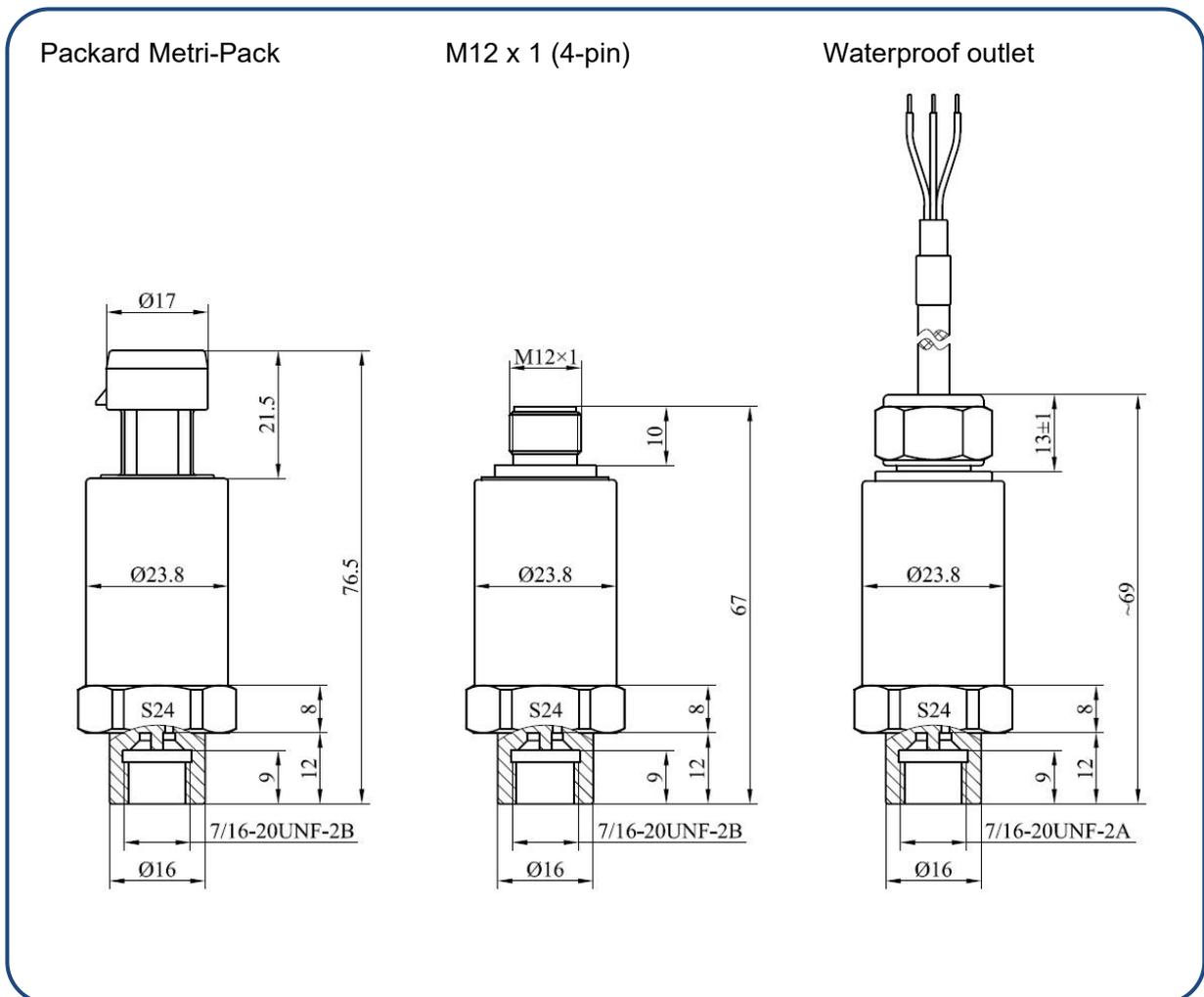
<b>Pressure Range</b>	-1~10...50bar (Sealed Gage)	
<b>Standard Range</b>	A: -1~12bar	
	B: 0~12bar	
	C: -1~16bar	
	D: 0~16bar	
	E: 0~30bar	
<b>Overload Pressure</b>	300%F.S (≤105bar)	
<b>Burst Pressure</b>	500%F.S (≤175bar)	
<b>Accuracy at 25°C</b>	±0.5%F.S (include no-linearity, hysteresis, repeatability, and calibration error) <sup>Note1</sup>	
<b>Long-term Stability.</b>	±0.25%F.S/year	
<b>Response Time</b>	(10%~90%)≤10ms	
<b>Medium Temperature</b>	-40°C~125°C	
<b>Ambient Temperature</b>	-35°C~105°C	
<b>Compensated Temperature</b>	-20°C~60°C (≤20bar)	
	-10°C~80°C (>20bar)	
<b>Storage Temperature</b>	-35°C~105°C	
<b>Output Signal</b>	4~20mA	0.5~4.5 VDC (Ratio)
<b>Supply Voltage</b>	10~30 VDC	5±0.25VDC
<b>Current without Load</b>	—	≤ 8 mA
<b>Output Load</b>	≤ ( U - 10 ) / 0.023 Ω (Max: 600Ω)	≥ 10KΩ
<b>Overvoltage</b>	30VDC	18VDC
<b>Reverse Voltage</b>	-30VDC	-18VDC
<b>Insulate Resistance</b>	≥100MΩ@500VDC	
<b>Dielectric Strength</b>	500VDC@1min (no spark, arc, no damage)	
<b>ESD</b>	Contact ±4kV, air ±8kV	
<b>EMC</b>	EN 61000-6-2, EN 61000-6-3	
<b>IP Rating</b>	IP67	



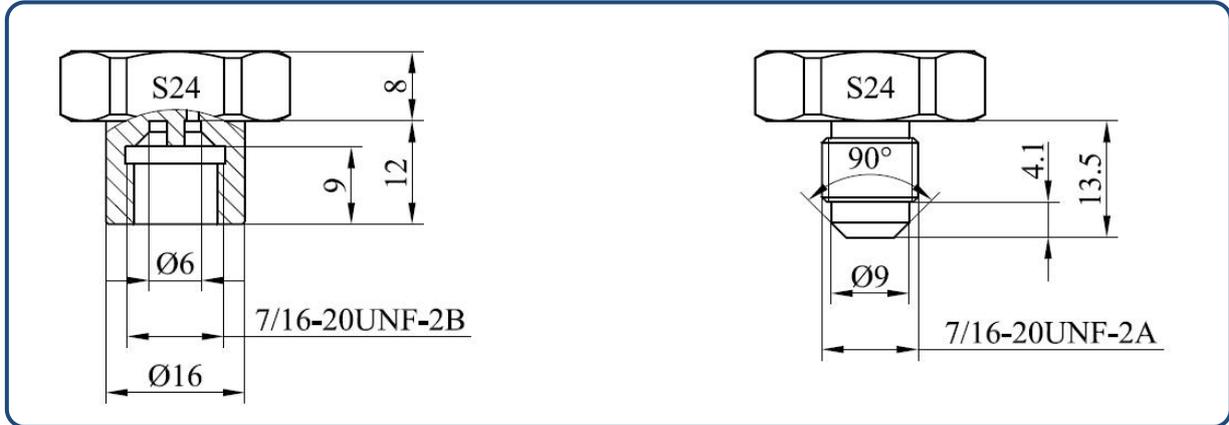
<b>Random Vibration</b>	10g, 5~2000Hz
<b>Shock</b>	X/Y/Z, 20g, half-sine 11ms
<b>Drop (Any Axis)</b>	1m
<b>Pressure Connector</b>	7/16-20UNF-2B, 7/16-20UNF-2A
<b>Connector Material</b>	316L stain steel
<b>Electrical Connection</b>	Packard Metri-Pack, M12 (4-pin), Waterproof outlet
<b>Seal Material</b>	Same as connector material

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

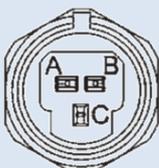
## Structure and Dimension (mm)



## Pressure Connector

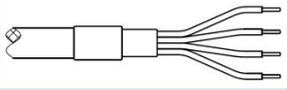


## Electrical Connection

Packard Metri-Pack	PIN	Two line (4~20mA)	Three line (0.5~4.5VDC)	Color of wire
		Define	Define	
	A	Shield (PE)	GND	Black
	B	Power Supply(U+)	Supply power (VCC)	Red
	C	Current Output (Io)	Voltage output (OUT)	Green

M12 x 1 (4-pin)	PIN	Two line (4~20mA)	Three line (0.5~4.5VDC)	Color of wire
		Define	Define	
	1	Power Supply(U+)	Supply power (VCC)	Brown
	2	Current Output (Io)	Voltage output (OUT)	White
	3		GND	Blue
	4	Shield (PE)	Shield (PE)	Black



Waterproof outlet	Two line (4~20mA)	Three line (0.5~4.5VDC)	Color of wire
	Define	Define	
	Power Supply(U+)	Supply power (VCC)	Red
	Current Output (Io)	Voltage output (OUT)	Green
	Shield (PE)	GND	Black
		Shield (PE)	Yellow

## Model Selection Tips

### PT300G Series Pressure Transmitter

#### Code Measuring Range

**X** X stands for actual pressure measuring range

#### Code Pressure Connection

**7/16U(F)** 7/16-20UNF-2B

**7/16U(M)** 7/16-20UNF-2A

#### Code Electrical Connection

**P** Packard Metri-Pack

**M12** M12 (4-pin)

**F** Waterproof outlet

#### Code Output

**420** 4~20mA

**0545R** 0.5~4.5V Ratio Voltage

#### Code Power Supply

**09** 10~30VDC

**03** (5±0.25) VDC

#### Code Accuracy

**05** ±0.5%

**10** ±1.0%



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PT300G    -X    -7/16U(F)    -P    -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.
8. The shielding end of the transmitter should be connected to the grounding terminal of the equipment system and reliably grounded.

## 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.

