

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;

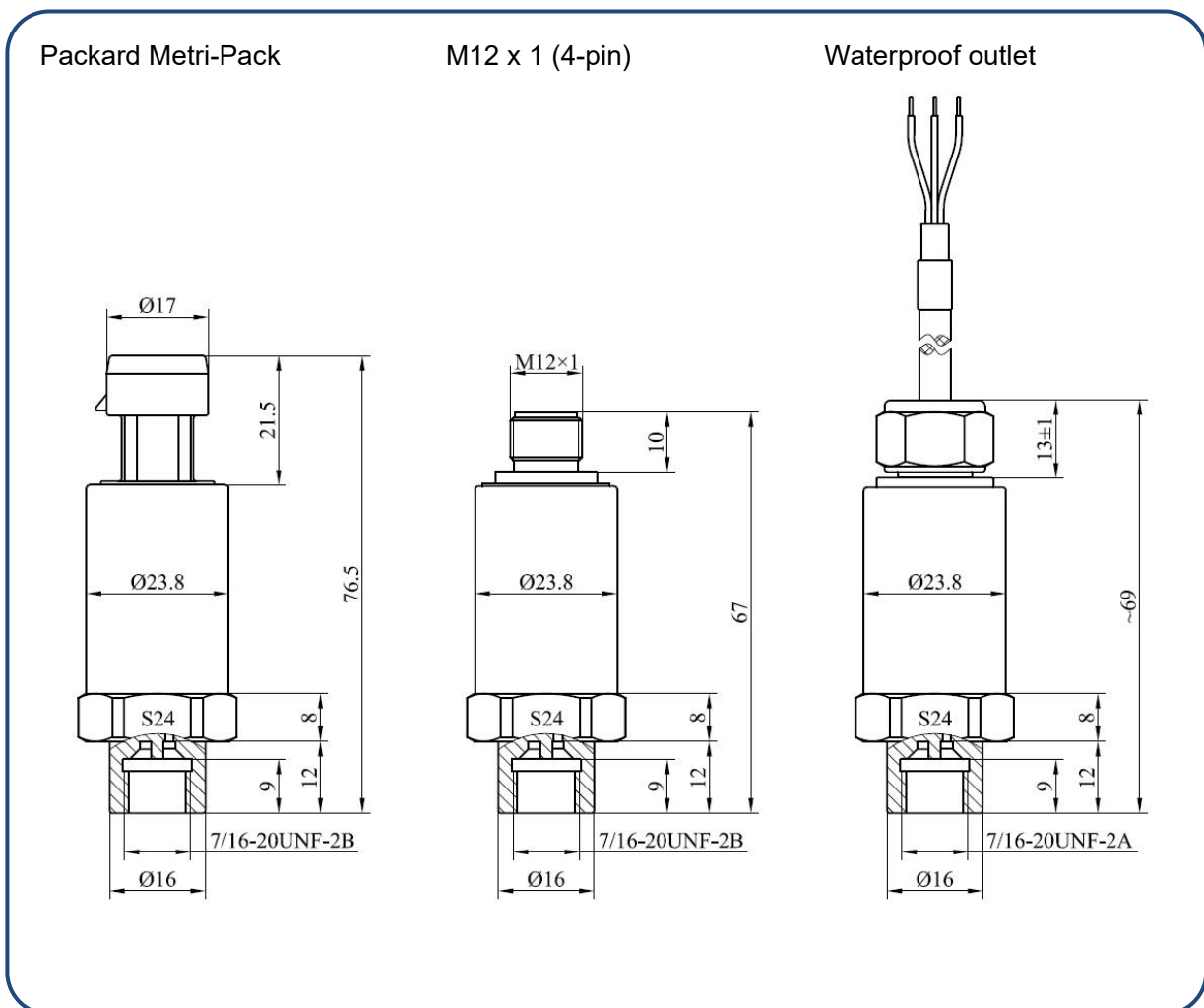
Pressure Range	-1~10...50bar (Sealed Gage)	
Standard Range	A: -1~12bar	
	B: 0~12bar	
	C: -1~16bar	
	D: 0~16bar	
	E: 0~30bar	
Overload Pressure	300%F.S (≤105bar)	
Burst Pressure	500%F.S (≤175bar)	
Accuracy at 25°C	±0.5%F.S (include no-linearity, hysteresis, repeatability, and calibration error) ^{Note1}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



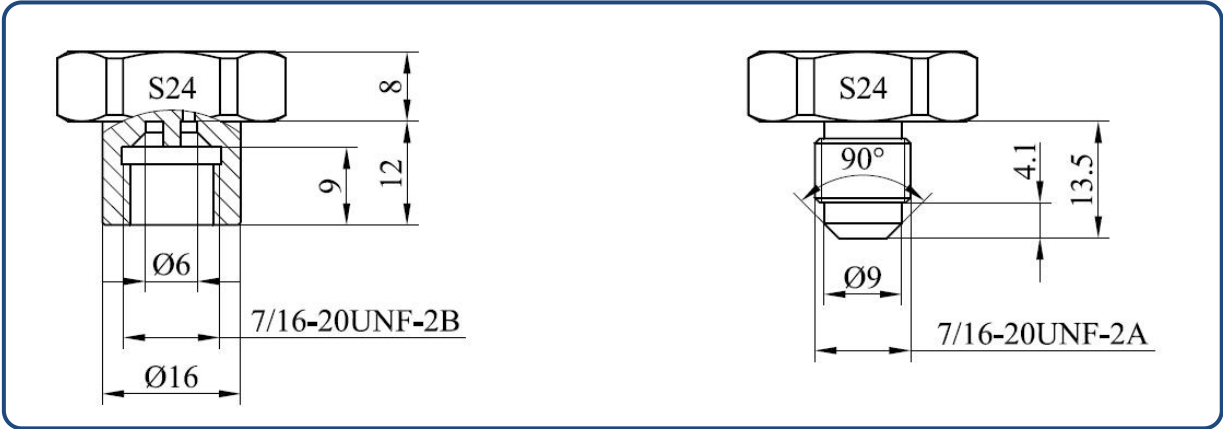
Random Vibration	10g, 5~2000Hz
Shock	X/Y/Z, 20g, half-sine 11ms
Drop (Any Axis)	1m
Pressure Connector	7/16-20UNF-2B, 7/16-20UNF-2A
Connector Material	316L stain steel
Electrical Connection	Packard Metri-Pack, M12 (4-pin), Waterproof outlet
Seal Material	Same as connector material

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

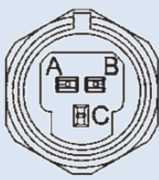
Structure and Dimension (mm)



Pressure Connector

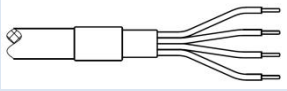


Electrical Connection

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%



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.

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.

