CS-PT1801

Applications

- Cold water screw unit
- Water source heat pump unit● Pressure of
- IGround source heat pump unit

Description

CS-PT1801 series pressure transmitter is a pressure transmitter specially designed for refrigerant pressure measurement. The ceramic capacitance sensing element and special calibration circuit are selected to realize the pressure measurement based on the sealed gauge pressure.

CS-PT1801 pressure transmitter also has the advantages of high accuracy at operating temperature, high waterproof grade, anti-condensate water, high burst pressure, etc. It is an ideal choice for refrigerant pressure measurement.

Features

- Ceramic capacitance sensing element
- Good linearity, small temperature drift
- High burst pressure
- Fully sealed, anti-condensation
- Protection level IP67
- Forward and reverse overvoltage
- Suitable for mass production

Performance Specifications

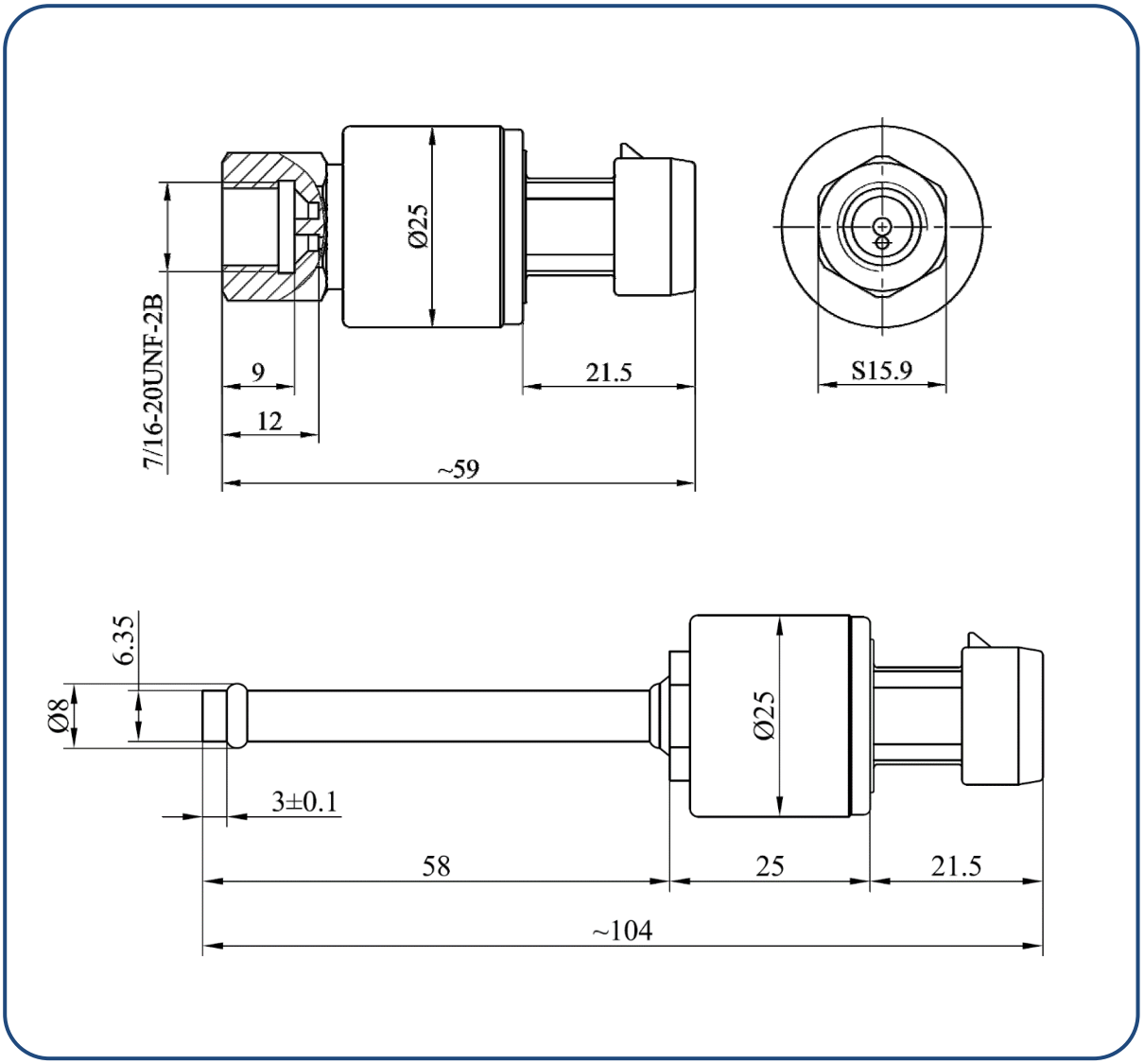
Temperature：20℃~25℃；Power supply：12VDC；Relative humidity：45%~75%； ambient atmospheric pressure：86~106KPa;

Pressure Range	-1~10bar…50bar (Sealed Gage)
Standard Range	A：-1~12.8bar
	B：-1~16bar
	C：0~20bar
	D：0~30bar
	E：-1~40bar
	F：0~50bar
Overload Pressure	200%F.S
Burst Pressure	300%F.S
Accuracy at 25℃	±1.0%F.S （±0.6% Optional）(include no-linearity, hysteresis, repeatability, and calibration error) Note 1
Total Error Accuracy	±2.5%F.S (include no-linearity, hysteresis, repeatability, and calibration error) Note 1
Long-term Stability	±0.25％F.S/year
Response Time	(10%~90%)≤10ms
Medium Temperature	-35℃~120℃
Ambient Temperature	-35℃~105℃
Storage Temperature	-35℃~105℃
Output Signal	4~20mA
Supply Voltage	8~30 VDC
Output Load	≤ (U－8) / 0.023 Ω (Max：600Ω)
Overvoltage	30VDC
Reverse Voltage	-30VDC
Insulate Resistance	≥100MΩ@500VDC
Insulate Intensity	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

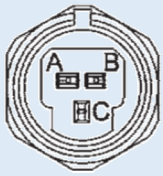
Pressure Connector	7/16-20UNF-2B， ϕ6.35 Copper pipes
Connector Material	Brass
Electrical Connection	Packard Metri-Pack
Seal Material	Neoprene
Applicable Refrigerant Medium	R12，R21，R22，R31，R32，R134a，R404a，R407C，R410a，R502，R507

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

Structure and Dimension (mm)



Electrical Connection

Packard Metri-Pack	PIN	Two line (4～20mA) Define	Color of wire
	A	Shield（PE）	Black
	B	Power Supply(U+)	Red
	C	Current Output (Io)	Green

Model Selection Tips

PT1801	**Series Pressure Transmitter**					
	Code	**Measuring Range**				
	X	X stands for actual pressure measuring range				
		Code	**Pressure Connection**			
		7/16U(F)	7/16-20UNF-2B			
		Φ6.35	Φ6.35 Copper pipes			
			Code	**Electrical Connection**		
			P	Packard Metri-Pack		
				Code	**Output**	
				420	4～20mA	
					Code	**Power Supply**
					21	8～30VDC
						Code **Accuracy**
						06 ±0.6%
						10 ±1.0%

PT1801	**-X**	**-7/16U(F)**	**-P**	**-420**	**-21**	**-10**

Notes:

a. When welding Φ6.35 pressurization copper pipe, cooling measures must be taken to ensure that the temperature of the sensor body does not exceed 120℃, which will damage the sealing performance of the sensor.

b. The pressure transmitter must be used in the medium that is non-corrosive to the seal material and the housing material.

c. In case the pressure guiding hole of the transmitter is blocked, it is forbidden to use sharp tools to clear it. Instead, one should remove the transmitter from the system, immerse the pressure guiding hole part in the liquid which can dissolve the blockage, and then the blockage will flow out easily.

d. It's prohibited to open the transmitter by users for calibration or repair.

e. Please contact us if you're not sure whether the transmitter is suitable for the medium to be measured.

f. The transmitter should be installed in a location that is not easily bumped or stepped on.

g. Exceeding of the transmitter overload pressure may cause permanent damage.

h. Where lightning may occur, customers should consider lightning protection measures.

i. Special note: this product only be used to refrigerate pressure measurement, no water or moist media.

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

Chinastar Company. reserves the right to modify the specifications and contents of this instruction. No further notice will be given if any changes are made. Due to product updates, the individual details of this document may not match the product. Please refer to the actual product. The right to interpret this document belongs to Chinastar Company.