

PCM301J Hydrogen Pressure Transmitter

PCM301J / PCM3502

Features

- Full stainless steel structure
- Reliable performance
- Small size and light weight
- Protection level IP65
- Integrated structural design, no leakage risk
- Mature technology, suitable for mass production
- Vibration and shock resistance

Application and Industry

- Pneumatic control
- Hydrogen measurement
- Hydrogen-powered vehicles
- High pressure pneumatic control system



Product Description

This series of sensors is a glass micro-melting pressure transmitter developed by our company specifically for measuring hydrogen. It is made of 316L material, resistant to hydrogen penetration, good stability, and has multiple output interfaces. It has a unique integrated structure, no leakage risks, and good vibration and impact resistance. It is widely used in hydrogen energy vehicles and hydrogen measurement industries.

Notice:

1. Do not touch the diaphragm with hard objects, as this may damage the isolation diaphragm.
2. Before installation, please read the product manual carefully and check the relevant information of the product.
3. Connect the wires strictly according to the wiring method, otherwise it may cause product damage and other potential failures.
4. Improper use may result in danger and personal injury.

Notice:

1. Do not misuse the file.
2. The information in this selection is for reference only and cannot be used as a guide for product installation.
3. Complete installation, operation and maintenance information is provided in the product manual.
4. Improper use may result in danger and personal injury.

Performance Parameters

Pressure range	0 ~ 2.5MPa ... 70MPa
Insulation resistance	$\geq 100\text{M}\Omega / 250\text{VDC}$
Accuracy	$\pm 0.5 \% \text{FS} (@ 25 \pm 5 \text{ } ^\circ\text{C})$
Full temperature range accuracy	$\pm 1.5 \% \text{FS} (@ -20 \sim 85 \text{ } ^\circ\text{C})$

Response time	≤90 ms
Overload pressure	2 × Pressure range
Burst pressure	4 × Pressure range
Service life	≥ 1 0 ⁶ pressure cycles
Operating temperature	-40 °C ~ 125 °C
Storage temperature	-40 °C ~ 125 °C
Shock Vibration	20 g (2 0 Hz to 2 400 Hz)

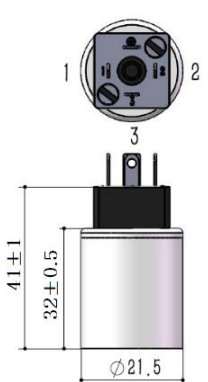
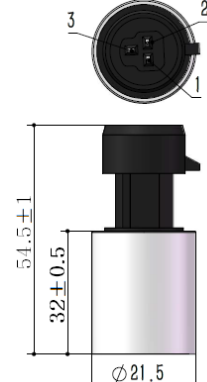
Performance parameters (continued)

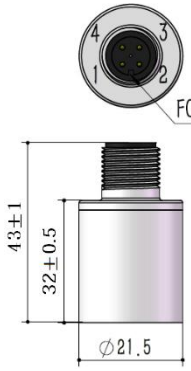
EMC	CISPR25:2008 CE Conducted Emission ISO 7637-2:2011 CTE Pulsed Emission CISPR25:2008-6.4 RE Radiated Emission ISO 7637-2:2011 MFI Low Frequency Magnetic Field Immunity CISPR25:2008-6.4 BCI high current injection ISO 7637-3:2007 ICC signal line pulse ISO 7637-2:2011 CI power line pulse ISO 7637-3:2007 CCC signal line pulse
Protection level	IP65 (Round Packard can meet IP67)
Medium	Various medium compatible with 316L stainless steel and hydrogen

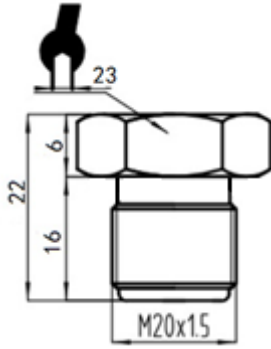
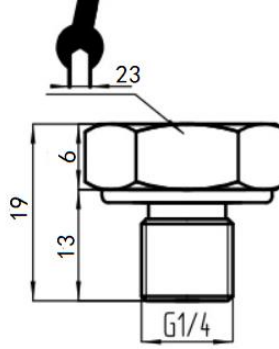
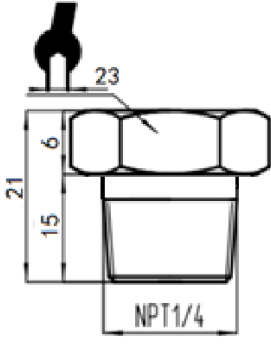
Output and power supply

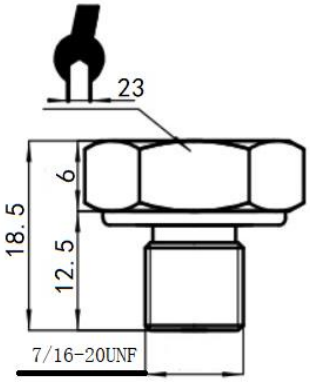
Code	B1	B6			
Output	4~20mA	0.5~4.5VR/M			
powered by	12~30VDC	5VDC			

Electrical connection and wiring method

Connector Code	J6: Mini 4 pin	J7: Round Packard
Dimensions Unit: mm		
Connection Mode Current (2 wires)	Pin 1: Supply + Pin 2: Current output Ground: suspended Pin 3: Floating	Pin 1: Supply+ Pin 2: Current output Pin 3: Floating
Connection Mode Current	Pin 1: Supply + Pin 2: Common Ground Pin 3: Voltage output	Pin 1: Supply+ Pin 2: Common-Ground Pin 3: Voltage output

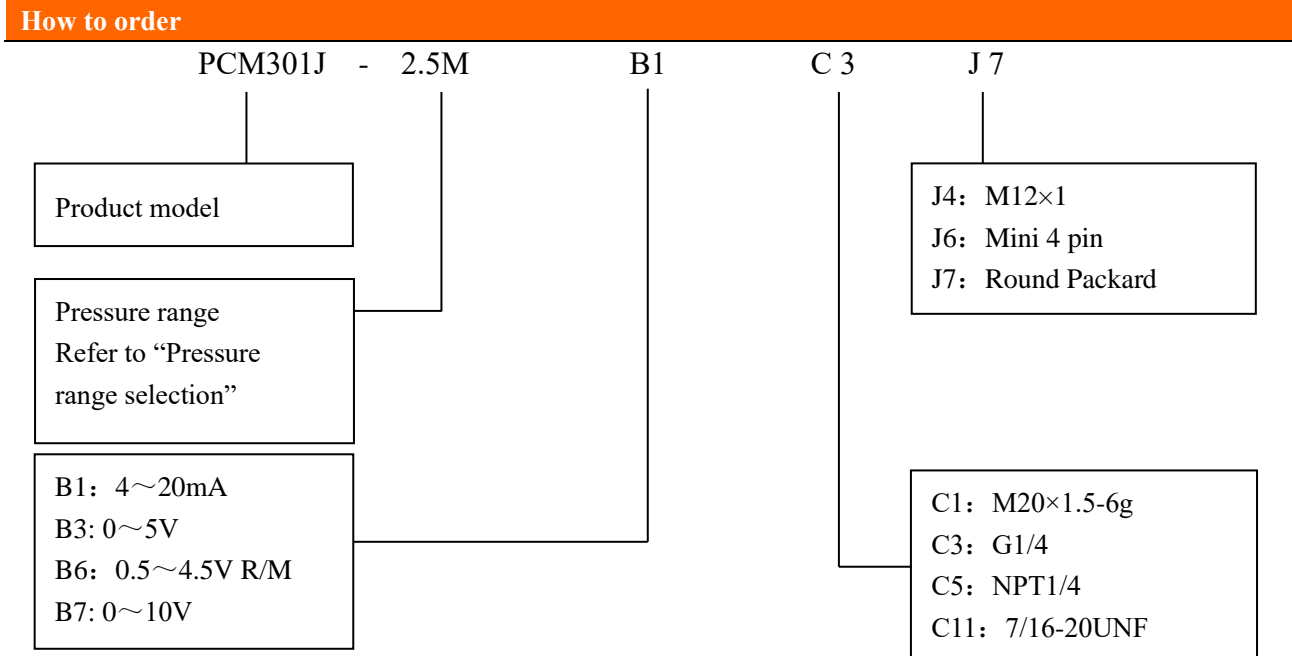
(3wires)	Ground: suspended	Pin 2: Common Ground
Electrical connection and wiring method		
Connector Code	J4: M12×1	
Dimensions Unit: mm		
Wiring (2-wire current)	Pin 1: Supply+	Pin 2: Current output Pin 3: Floating Pin 4 : Floating
Wiring (3-wire voltage)	Pin 1: Supply + Pin 3: Common Ground	Pin 2: Voltage output Pin 4 : Floating

Pressure Port			
Thread code	C 1: M20×1.5-6g	C3: G1/4	C5: NPT1/4
Dimensions Unit: mm			
Recommended torque	15~25Nm	15~25Nm	15~25Nm
Thread code	C11 : 7/ 16-20UNF		

Dimensions Unit: mm			
Recommended torque	15~25Nm		

NOTE: Torque depends on various factors such as gasket material, mating material, thread lubrication and pressure level.

Pressure Range selection				
Range code	Measuring range	Overload pressure	Burst pressure	Remark
2.5M	0~ 2.5MPa	200 % FS	500 % FS	
25M	0~ 25MPa	200 % FS	500 % FS	
45M	0~ 45MPa	200 % FS	4 00% FS	
70M	0~ 70MPa	200 % FS	4 00% FS	



Example: PCM 301J - 2.5M B1 C3 J7

The model is PCM 301J , the measuring range is 0 ~ 25MPa , the output signal is 4 ~ 20 mA , the Pressure Port is G1/4, Round Packard .



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