Absolute pressure sensor PT28-A

This sensor from the PT2 family has been designed to offer higher accuracy at a low cost. Compared with the standard PT2 model, the housing is slightly larger to accommodate additional electronics and the reference vacuum required for absolute pressure measurement. Typical applications include the monitoring of vacuum pumps. Thanks to the high-quality materials used, a wide range of media can be monitored. The pressure sensor is temperature-compensated up to 80°C to enhance measurement accuracy.
Further options are available as special orders, such as output signals with lower voltages for single-board computers, additional electrical connections, or other common threaded connections for the medium.
A relative pressure series, the PT28, is also available; this has its own data sheet.

Technical data:

Output signal (power supply)	2-wired (current)	4~20 mA (12~30 VDC)
	3-wired (voltage)	0~10 V (12~30 VDC/AC) On request: 0,5~4,5 V (5 VDC) 0/1~5 V (10~30 VDC/AC)
	4-wired	On request: RS485 (24V DC)
Measurement range	0 bar….1 bar ~ 1,05 bar … 99 bar (0,5% accuracy) 0 bar….1 bar ~ 1,1 bar … 99 bar (0,25% accuracy)	
Overload pressure	1,5 times of the rated pressure	
Accuracy	0,5% or 0,25% f.s.	
Stability	< 0.5% f.s./year	
Permitted temperature ranges	Working temp.: -20 ~ 85°C Compensated temp.:: -10°C ~ 80°C Storage temp.: -40°C ~ 100°C	
Measured medium	Gas or liquid compatible with 304 and 316L stainless steel, fluorine rubber or nitrile rubber	
Pressure connection	On stock: G ¼", other common ones as special order	
Electrical resistence	2-wired: 0,02 Ω 3-wired: >100 kΩ	
Electrical connection	- M12 (4-core A-coded) - DIN43650A	
Enclosure protection	IP 65	
Size	110 mm (Height)(DIN43650A), S27 (largest diameter)	

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Product coding

PT28-A	-	X	X	X	-	X	X	(- X)

Model

Output signal:
2 = 2-wired: 4~20 mA (12~30 VDC)
3 = 3-wired: 0~10 V (12~30 VDC/AC)
4 = 3-wired: 0,5~4,5 V (5 VDC)
5 = 3-wired: 0/1~5 V (10~30 VDC/AC)
6 = 4-wired: RS485 (24 VDC)

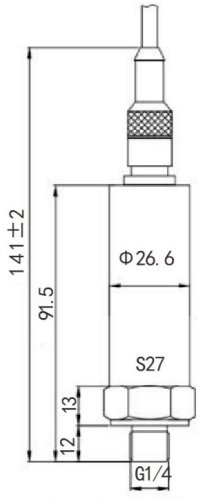
Pressure range:
1 = 0 ~ 2 bar
2 = 0 ~ 1 bar
3 = 1 ~ (x-1) bar (last column)

Maximum pressure in bar - 1

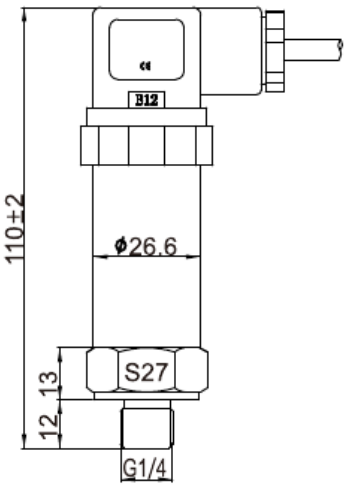
Accuracy:
1 = 0,5%
3 = 0,25%

Pressure connection:
1 = G ¼”
2 = M20 x 1,5

Electrical connection:
2 = M12
3 = DIN43650A
5 = Cable







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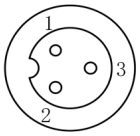
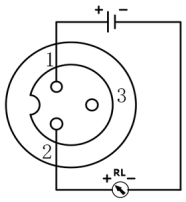
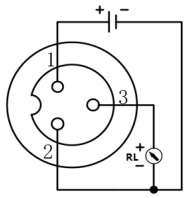
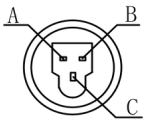
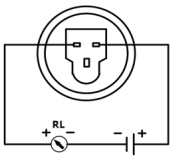
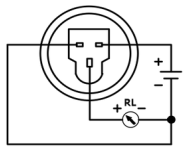
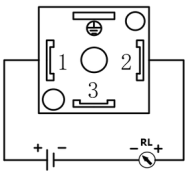
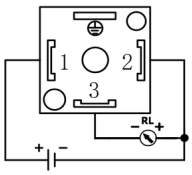
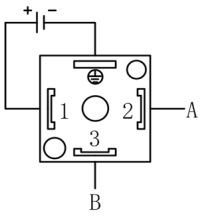
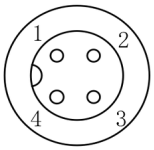
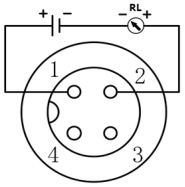
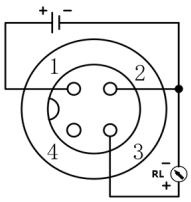
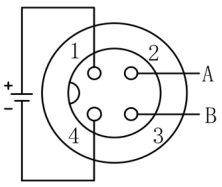
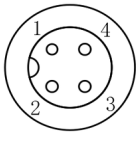
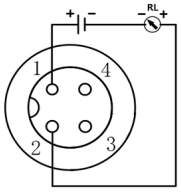
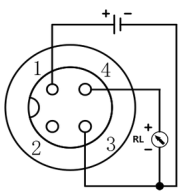
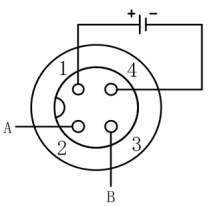
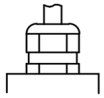
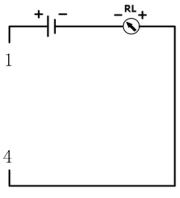
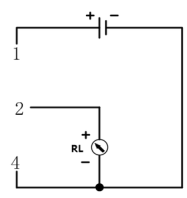
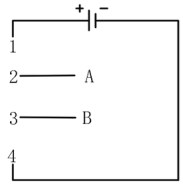
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PT2X Series Pressure transmitter

User Guide

1. Electrical Connection

Eletrical Connection	Schematic Drawing	4~20mA	0.5~4.5V/0~5V 0~10V	RS485
GX12-3P		 1.Red 2.Black	 1.Red 2.Black 3.Green	
Packard		 A.Black B.Red	 A.Black B.Red C. Green	
Hirschmann		 1.Red 2.Black	 1.Red 2.Green 3.Black	 1.Red 2.Green 3.White 4.Black
GX12-4P		 1.Red 2.Black	 1.Red 2.Black 3.Green	 1.Red 2.Green 3.White 4.Black
M12-4P		 1.Brown 2.White	 1.Brown 3.Blue 4.Black	 1.Brown 2.White 3.Blue 4.Black
Direct lead		 1.Red 4.Black	 1.Red 2.Green 4.Black	 1.Red 2.Green 3.White 4.Black

2. **Supply Voltage**

Output	4~20mA	0.5~4.5V Proportional	0.5~4.5V Absolute	0~5V	0~10V	RS485
Voltage	10~36VDC	4.75~5.25VDC	4.75~5.25VDC	10~36VDC	12~36VDC	10~30VDC

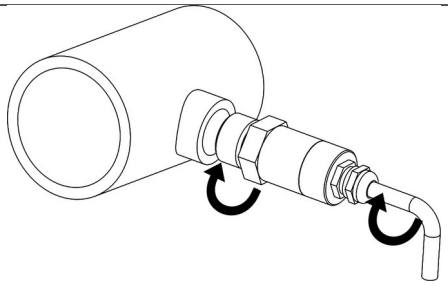
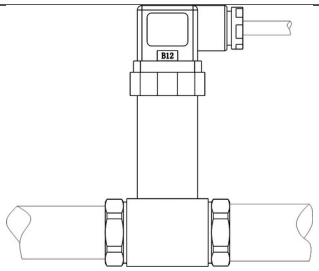
✳Addition:When PT21 output is 0~10V, the working voltage is 14~30V; when PT27 absolute output is 0.5-4.5V, the working voltage is 5-15V

3. Working Temperature

Working Temperature	Model
-20~85℃	PT2,PT21,PT23,PT28,PT25
-40~120℃	PT27,PT26

✳Addition:The PT23 can be used to measure high temperature media: 5 heat sink for 180℃; 10 heat sink for 260℃

4. Installation

	
The wire and sensor rotate at the same time to prevent the wire from being twisted off	PT25 differential pressure transmitter should be mounted horizontally.

5. **Medium**

medium	Model
Medium compatible with R12, R22, R134A, R404A, R407C, R410A, R502, R507	PT26
Gas or liquid compatible with 304 and 316L stainless steel, fluorine rubber ring or NBR	PT21,PT23,PT25 PT27, PT28
Gases or liquids compatible with 1Cr18Ni9Ti, 304 stainless steel, fluorine rubber ring or Nitrile rubber	PT2