PL-528

Liquid Static Pressure Sensor

Features:

- Suitable for water, steam (with PL-HS) or air
- Compact rugged construction
- Negligible temperature influence
- Supply short circuit & polarity reversal protected

Technical Overview

The PL-528 range of static pressure transmitters is suitable for use with liquids and non-aggressive gases compatible with the FPM (Viton seal).

The pressure transmitter is based on proven ceramic technology for exceptional performance speed and reliability.

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Specification:

Output:

PL-528-x	4-20mA (2-wire loop powered)
PL-528-x-V	0-10Vdc

Supply voltage:

4-20mA	7 to 33Vdc
0-10Vdc	12 to 33Vdc or 24Vac ±15%

Load:

4-20mA	$\leq \frac{\text{Supply voltage} - 7V}{}$ (Ohm)
0-10Vdc	>10Kohm

Current consumption:

4-20mA	<23mA
0-10vdc	<7mA

Electrical connections	DIN EN175301-803-A

Accuracy @ 25°C, 45% RH 24Vdc supply:

Characteristic line	±0.8 % fs
Resolution	0.1% fs
Thermal characteristic	±0.2 % fs/10K

Response time	<2ms, 1ms typical
Load cycle	<100Hz

Overload/rupture:

0 to 4bar versions	3 x measuring range fs
6 to 40 bar versions	2.5 x measuring range fs

Materials in contact with the medium	Stainless steel 1.4305/AISI 303 FPM (Viton) & Ceramic $A1_2O_3$ (96%)

Temperature:

Media	-15 to 125°C
Ambient	-30 to 85°C

Dimensions	104 x 65mm
Pressure connection	½" BSP male manometer combi
Protection	IP65
Conformity	EN 61326-2-3, CE Marked, EMC
Country of origin	Switzerland

CE

The products referred to in this data sheet meet the requirements of EU Directive 2004/108/EC

Part Codes:

4-20mA Output:

PL-528-1	Liquid pressure transmitter 0 to 1 bar
PL-528-1.6	Liquid pressure transmitter 0 to 1.6 bar
PL-528-2.5	Liquid pressure transmitter 0 to 2.5 bar
PL-528-4	Liquid pressure transmitter 0 to 4 bar
PL-528-6	Liquid pressure transmitter 0 to 6 bar
PL-528-10	Liquid pressure transmitter 0 to 10 bar
PL-528-16	Liquid pressure transmitter 0 to 16 bar
PL-528-25	Liquid pressure transmitter 0 to 25 bar
PL-528-40	Liquid pressure transmitter 0 to 40 bar

0-10Vdc Output:

PL-528-1-V	Liquid pressure transmitter 0 to 1 bar
PL-528-1.6-V	Liquid pressure transmitter 0 to 1.6 bar
PL-528-2.5-V	Liquid pressure transmitter 0 to 2.5 bar
PL-528-4-V	Liquid pressure transmitter 0 to 4 bar
PL-528-6-V	Liquid pressure transmitter 0 to 6 bar
PL-528-10-V	Liquid pressure transmitter 0 to 10 bar
PL-528-16-V	Liquid pressure transmitter 0 to 16 bar
PL-528-25-V	Liquid pressure transmitter 0 to 25 bar
PL-528-40-V	Liquid pressure transmitter 0 to 40 bar

Accessories

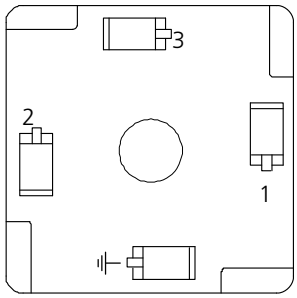
PL-HS	Pressure transmitter heat sink
PL-528-CAL	Calibration certificate

Installation & Connections:

1. Fix the transmitter to the pipe using a ½" BSP female connection, and an isolation valve.
2. You should avoid mounting the transmitter where it will be subjected to mechanical vibration.
3. The sensor can be mounted in any orientation if the temperature is between -15 to 125°C.
4. Remove the DIN connector.
5. Expose the electrical terminals feed cable through the cable gland and connected as required (see connections below).
6. Re-fit connector to transmitter.

- **PL-528-x (4-20mA):**

Terminal 1 7 - 33Vdc
Terminal 2 4-20mA signal



- **PL-528-x-V (0-10Vdc):**

Terminal 1 12 - 33Vdc or 24Vac ±15%
Terminal 2 0-10Vdc signal
Terminal 3 0V (Ground)

Tech Tip:

Effects of water hammer and pulsation.

Pressure spikes are created by quickly closing valves, positive displacement pumps and vertical pipe runs and can have damaging effects. These include blown diaphragms, broken seals and damage to gaskets, meters and gauges.

By knowing and eliminating problems beforehand, you can avoid situations that will create water hammer or pulsation during a specific process, avoiding failed equipment and costly downtime.

For more information please visit independent specialist Control Integration's web site;

http://www.controlintegration.co.uk/2012/what-are-the-effects-of-water-hammer-and-pulsation

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