



Features & Benefits

- Suitable for water, steam (with PL-HS) or air
- Compact rugged construction
- Very high measurement accuracy
- Excellent thermal characteristic

Technical Overview

The PL-525 has a compact and robust design and a very high measurement accuracy and is suitable for use with liquids and non-aggressive gases.

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

Product Codes

PL-525-0.1	0 to 100mbar, static pressure 4-20mA output
PL-525-0.2	0 to 200mbar, static pressure 4-20mA output
PL-525-0.3	0 to 300mbar, static pressure 4-20mA output
PL-525-0.6	0 to 600mbar, static pressure 4-20mA output
PL-525-0.1-V	0 to 100mbar, static pressure 0-10Vdc output
PL-525-0.2-V	0 to 200mbar, static pressure 0-10Vdc output
PL-525-0.3-V	0 to 300mbar, static pressure 0-10Vdc output
PL-525-0.6-V	0 to 600mbar, static pressure 0-10Vdc output

Accessories

PL-HS	Pressure transmitter heat sink
PL-525-CAL	Calibration certificate

Specification

Output:	PL-525-x	4-20mA (2-wire loop powered)
	PL-525-x-V	0-10Vdc
Supply voltage:	4-20mA	10-30Vdc
	0-10Vdc	12-33Vdc
Current consumption:	4-20mA	<23mA
	0-10vdc	<5mA
Electrical connections	DIN EN175301-803-A	
Accuracy @ 25°C, 45% RH 24Vdc supply pressure con down:	Characteristic line	±0.35 % fs
	Resolution	<0.1% fs
	Thermal characteristic	±0.07 % fs/10K max.
	Error horizontal mounting	+0.1mbar
	Error vertical mounting	+0.2mbar
	Pressure cons upward	
Response time	<150ms	
Load cycle	<100Hz	
Overload/rupture	2bar	
Materials in contact with the medium	Stainless steel 1.4404/AISI 316L FPM & Ceramic A12O3 (96%)	
Temperature:	Media	-15 to 85°C
	Ambient	-40 to 85°C
Dimensions	104 x 65mm	
Pressure connection	½" BSP male	
Protection	IP65	
Conformity	EN 61326-2-3, CE Marked, EMC	
Country of origin	Switzerland	

WEEE Directive:



At the end of the products useful life please dispose as per the local regulations.
Do not dispose of with normal household waste.
Do not burn.



The products referred to in this data sheet meet the requirements of EU Directive 2014/30/EU

For pricing or any further information, please contact Omni Instruments Ltd.

Contact Details:

Tel: +44 845 9000 601
Fax: +44 845 9000 602
Local Tel: 01382 443000
Email: info@omni.uk.com

Mailing Address:

Suite E, East Kingsway Business Centre,
Mid Craigie Trading Estate, Mid Craigie Road,
Dundee, DD4 7RH, UK



Installation

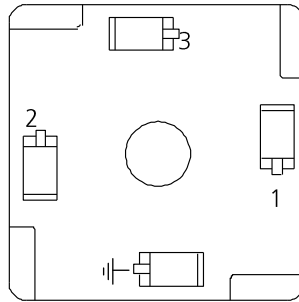
1. Fix the transmitter to the pipe using a ½" BSP female connection, and an gate valve
2. You should avoid mounting the transmitter where it will be subjected to mechanical vibration.
3. The sensor can be mounted in any orientation if the temperature is between -15 to 85°C.
4. Remove the DIN connector and expose the electrical terminals feed cable through the cable gland and connected as required. Re-fit connector to transmitter.
5. When opening the gate valve it is important to do this slowly to avoid pressure spikes that can damage the transmitter,

PL-525-x (4-20mA):

Terminal 1 10 - 30Vdc
Terminal 2 4-20mA signal

PL-525-x-V (0-10Vdc):

Terminal 1 12 - 33Vdc
Terminal 2 20-10Vdc signal
Terminal 3 0V (Ground)



Tech Tip

Effects of water hammer and pulsation.

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.

Surge or water hammer, as it is commonly known is the result of a sudden change in liquid velocity. Water hammer usually occurs when a transfer system is quickly started, stopped or is forced to make a rapid change in direction. Any of these events can lead to catastrophic system component failure. Without question, the primary cause of water hammer in process applications is the quick closing valve, whether manual or automatic. A valve closing in 1.½ sec. or less depending upon valve size and system conditions causes an abrupt stoppage of flow. The pressure spike (acoustic wave) created at rapid valve closure can be high as five (5) times the system working pressure.

Pulsation generally occurs when a liquid's motive force is generated by reciprocating or peristaltic positive displacement pumps. It is most commonly caused by the acceleration and deceleration of the pumped fluid. This uncontrolled energy appears as pressure spikes. Vibration is the visible example of pulsation and is the culprit that usually leads the way to component failure.

Unlike centrifugal pumps (which produce normally non-damaging high-frequency but low-amplitude pulses), the amplitude is the problem because it's the pressure spike. The peak, instantaneous pressure required to accelerate the liquid in the pipe line can be greater than ten (10) times the steady state flow pressure produced by a centrifugal pump.

Whilst every effort has been made to ensure the accuracy of this specification, we cannot accept responsibility for damage, injury, loss or expense from errors or omissions. In the interest of technical improvement, this specification may be altered without notice.

For pricing or any further information, please contact Omni Instruments Ltd.

Contact Details:

Tel: +44 845 9000 601
Fax: +44 845 9000 602
Local Tel: 01382 443000
Email: info@omni.uk.com

Mailing Address:

Suite E, East Kingsway Business Centre,
Mid Craigie Trading Estate, Mid Craigie Road,
Dundee, DD4 7RH, UK