

IPSLU-M12 series

Low Range Industrial Pressure Sensor with M12 4-Pin connector



The IPSLU-M12 is suitable for use in a wide range of applications. The probe uses a piezo-resistive silicon sensor, giving excellent media compatibility within an oil filled 316L stainless steel housing

The electronics incorporate a microprocessor based amplifier, requiring no adjusting and giving stable electronics, especially in high vibration/shock applications.

Each device is temperature compensated, calibrated and supplied with a traceable serial number and calibration data.*

Custom versions can be made for particular applications.

Material Specifications

Housing	316L Stainless Steel
“O” ring seals	Viton
Diaphragm	316L Stainless Steel
Media wetted parts	Housing & connection, “O” ring seal, diaphragm

Miscellaneous

Current consumption	2 -wire Limits at 28mA 3-wire Typical 6mA
Weight	Approx 3.5oz (100g)
Installation position	Any, small zero shift when tilted through 90°
Operational Life	> 100x 10 ⁶ cycles
Insulation resistance	> 50MΩ at 50Vdc
Environmental protection	IP67 (only when used with a similarly rated connector)

- Piezo-resistive sensor
- Stainless steel body & diaphragm
- Accuracy $\leq \pm 0.25\%$ FS BFSL
- Various outputs including Volts and mA.
- Pressure ranges from 1 psi to 15 psi
- Gauge or Absolute pressure reference
- 1/4"NPT process connection

Options available on the IPSLU-M12 pressure transmitter.

Pressure range
Output type
Mating cable and plug assemblies are available - see datasheet M12 Cable Set Series

Suitable applications

HVAC	Mechanical engineering
Pneumatics	Environmental engineering
Rainwater harvesting	Automotive testing
Agricultural machinery	Tank gauging
Laboratory testing	IBC, IBC Tote or pallet tank

Performance

Accuracy (Non-Linearity & Hysteresis)	$\leq \pm 0.25\%$ / FS (BFSL) for gauge reference	
Setting Errors (offsets)	2-wire	Zero & Full Scale, $\leq \pm 0.5\%$ / FS
	3-wire	Zero & Full Scale, $\leq \pm 0.5\%$ / FS
Permissible Load	2-wire	$R_{max} = [(Supply-9min)/0.02]\Omega$
	3-wire	$R_{min} = 10k\Omega$
Influence Effects	Supply	$< 0.005\%$ FS / 1V
	Load	0.05% FSO / kΩ

Electrical Protection

Supply reverse polarity	No damage/no function
Electromagnetic compatibility	CE Compliant

Mechanical Stability

Shock	100g / 11s
Vibration	10g RMS (20 - 2000Hz)

Temperatures & Thermal Effects

Media Temperature	-40°C to +125°C
Ambient Temperature	-20°C to +80°C
Storage temperature	-40°C to +125°C
Compensated temperature range	+20°C to +80°C
Thermal Zero Shift (TZS)	$\leq \pm 0.04\%$ /FS/°C
Thermal Span Shift	$< -0.015\%$ /°C

*Calibration data is supplied as a sticker affixed to the product packaging - do not discard

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IPSLU-M12 2018

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Pressure Ranges

Nominal Pressure, Gauge, psi	0.75	1.5	3.75	7.5	11.25	15
Permissible Overpressure psi	30	30	30	75	75	75

Output Signals and Supply Voltages

Wire system	Output	Supply Voltage	Connection Pin Nos
2-wire	4-20mA	9-32Vdc	+ve Supply Pin 1 -ve Supply Pin 2 Ground Earth Pin
3-wire	0-5Vdc	9-32Vdc	+ve Supply Pin 1 -ve Supply Pin 2 Output Pin 3 Earth Pin 4

Part No	Pressure Range	Output
IPSLU-GP001-5M12	0-1 psi G	4-20mA
IPSLU-GP002-5M12	0-2 psi G	4-20mA
IPSLU-GP005-5M12	0-5 psi G	4-20mA
IPSLU-GP008-5M12	0-8 psi G	4-20mA
IPSLU-GP010-5M12	0-10 psi G	4-20mA
IPSLU-GP015-5M12	0-15 psi G	4-20mA
IPSLU-GP001-6M12	0-1 psi G	0 to 5V 3Wire
IPSLU-GP002-6M12	0-2 psi G	0 to 5V 3Wire
IPSLU-GP005-6M12	0-5 psi G	0 to 5V 3Wire
IPSLU-GP008-6M12	0-8 psi G	0 to 5V 3Wire
IPSLU-GP010-6M12	0-10 psi G	0 to 5V 3Wire
IPSLU-GP015-6M12	0-15 psi G	0 to 5V 3Wire

Mechanical Dimensions

