

| IPSLU-M12 SERIES

LOW RANGE INDUSTRIAL PRESSURE SENSOR WITH M12 4-PIN CONNECTOR



Options Available

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

SPECIFICATIONS

Performance

Accuracy (Non-linearity & Hysteresis)	<±0.25% / FS (BFSL) for gauge reference	
Setting Errors (Offsets)	2-wire	Zero & Full Scale, <±0.5% / FS
	3-wire	Zero & Full Scale, <±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 / $k\Omega$

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.*

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

Custom versions can be made for particular applications.

Features

- Piezo-resistive sensor
- Stainless steel body & diaphragm
- Accuracy <±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

Suitable Applications

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

Material

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°
Operation Life	> 100 x 10 ⁶ cycles
Insulation Resistance	> 50MΩ at 50Vdc
Environmental Protection	IP67 (only when used with a similarly rated connector)

Electrical Protection

Supply Reverse Polarity	No damage / no function
Electromagnetic Compatibility	UKCA, CE EMC directive - BS EN 61326-1:2013

Mechanical Stability

Shock	100g / 11s
Vibration	10g RMS (20 - 2000Hz)
Media Temperature	-40°C to +125°C
Ambient Temperature	-20°C to +80°C
Storage Temperature	-40°C to +125°C
Humidity	5% to 95% RH non-condensing

Temperature & Thermal Effects

Compensated Temperature Range	+20°C to +80°C
Thermal Zero Shift (TZS)	<±0.04% /FS/°C
Thermal Span Shift	<-0.015% /°C

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 Signal & Supply Voltage

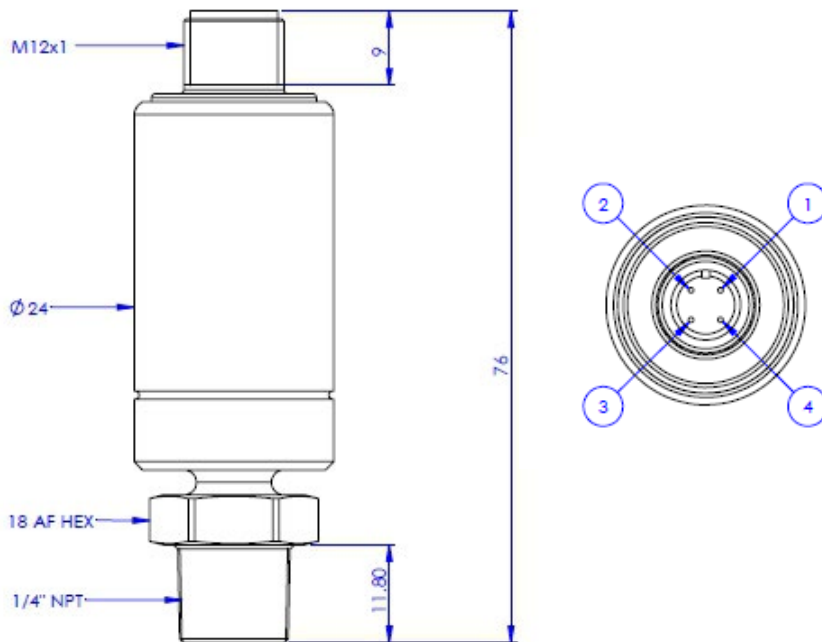
Wire System	Output	Supply Voltage	Connection Pin Nos		
2-wire	4 - 20mA	9 – 32V dc	+ve Supply Pin 1	-ve Supply Pin 2	Ground Earth Pin
3-wire	0 - 5V dc	9 – 32V dc	+ve Supply Pin 1	-ve Supply Pin 2	
			Output Pin 3	Earth Pin 4	

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



DIMENSIONS

All dimensions are in millimeters.



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