



Low Range Industrial Pressure Sensor with M12 4Pin Connector



The IPSL-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.

- Piezo-resistive sensor
- Stainless steel body & diaphragm
- Accuracy <±0.25% FS BFSL
- 4-20mA or 0-5Vdc output.
- Pressure ranges from 50 mbar to 1000 mbar
- M12 4-pin connector

Options available on the IPSL 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)<±0.25% / FS (BFSL) for gauge, <±0.5% for Absolute

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 $R_{\scriptscriptstyle min}=10 k\Omega$ Influence Fffects < 0.005% FS / 1V Supply Load 0.05% FSO / $k\Omega$

Material Specifications

Housing 316L Stainless Steel

"0" ring seals Viton

Diaphragm 316L Stainless Steel

Housing & connection, "0" ring seal, Media wetted parts

diaphragm

Miscellaneous

Weight

2 -wire Limits at 28mA **Current consumption**

3-wire Typical 6mA

Approx 100g

Installation position Any, small zero shift when tilted through

90°

Operational Life $> 100 \times 10^6$ cycles Insulation resistance > 50M0hms at 50Vdc

Environmental protection IP67 (when used with a similarly

rated connector)

Electrical Protection

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

Mechanical Stability

Shock 100g / 11s Vibration

10g RMS (20 - 2000Hz)

Temperatures & Thermal Effects

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

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IPSL-M12 2018





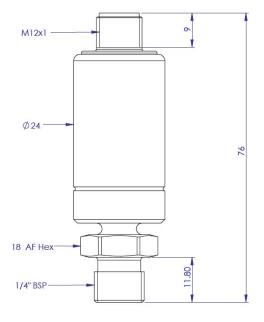
IPSL-M12 series

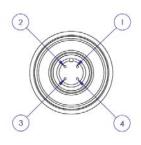
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Pressure Ranges and Passive mV/V Outputs								
Nominal Pressure, Gauge,	mbar	50	100	250	500	750	1000	
Nominal Pressure, Absolute	mbar				500	750	1000	
Permissible Overpressure	mbar	2 bar	2 bar	2 bar	5 bar	5 bar	5 bar	

Output Sign	nals and Supply Voltages	DIN 43650			
Wire system	output	Supply Volts	Connection	Pin No.	
2-wire	4-20mA	9-32Vdc	+ve Supply -ve Supply Ground	Pin 1 Pin 2 Earth pin	
3-wire	0 - 5Vdc	9-32 Vdc	+ve Supply -ve Supply +ve Output Ground	Pin 1 Pin 2 Pin 3 Pin 4 Earth	

Part No.	Pressure Range	Output	
IPSL-G0050-5M12	0-50mbarG	4-20mA	
IPSL-G0100-5M12	0-100mbarG	4-20mA	
IPSL-G0250-5M12	0-250mbarG	4-20mA	
IPSL-G0500-5M12	0-500mbarG	4-20mA	
IPSL-G0750-5M12	0-750mbarG	4-20mA	
IPSL-G1000-5M12	0-1000mbarG	4-20mA	
IPSL-G0050-6M12	0-50mbarG	0-5V 3-wire	
IPSL-G0100-6M12	0-100mbarG	0-5V 3-wire	
IPSL-G0250-6M12	0-250mbarG	0-5V 3-wire	
IPSL-G0500-6M12	0-500mbarG	0-5V 3-wire	
IPSL-G0750-6M12	0-750mbarG	0-5V 3-wire	
IPSL-G1000-6M12	0-1000mbarG	0-5V 3-wire	





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ISO9001certified