

# IPSL-M12 series

## Low Range Industrial Pressure Sensor with M12 4Pin Connector



- Piezo-resistive sensor
- Stainless steel body & diaphragm
- Accuracy  $<\pm 0.25\%$  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

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.

### 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)  $<\pm 0.25\%$  / FS (BFSL) for gauge,  $<\pm 0.5\%$  for Absolute

Setting Errors (offsets)	2-wire	Zero & Full Scale, $<\pm 0.5\%$ / FS
	3-wire	Zero & Full Scale, $<\pm 0.5\%$ / 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 / $k\Omega$

### 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 100g
Installation position	Any, small zero shift when tilted through 90°
Operational Life	$> 100 \times 10^6$ cycles
Insulation resistance	$> 50M\Omega$ at 50Vdc
Environmental protection	IP67 (when used with a similarly rated connector)

### 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)	$<\pm 0.04\%$ / FS/°C
Thermal Span Shift	$<-0.015\%$ /°C

Cynergy3 Components Ltd.  
7 Cobham Road  
Ferndown Industrial Estate  
Wimborne, Dorset BH21 7PE  
Telephone +44 (0) 1202 897969

Email: sales@cynergy3.com

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## Low Range Industrial Pressure Sensor with M12 4Pin Connector

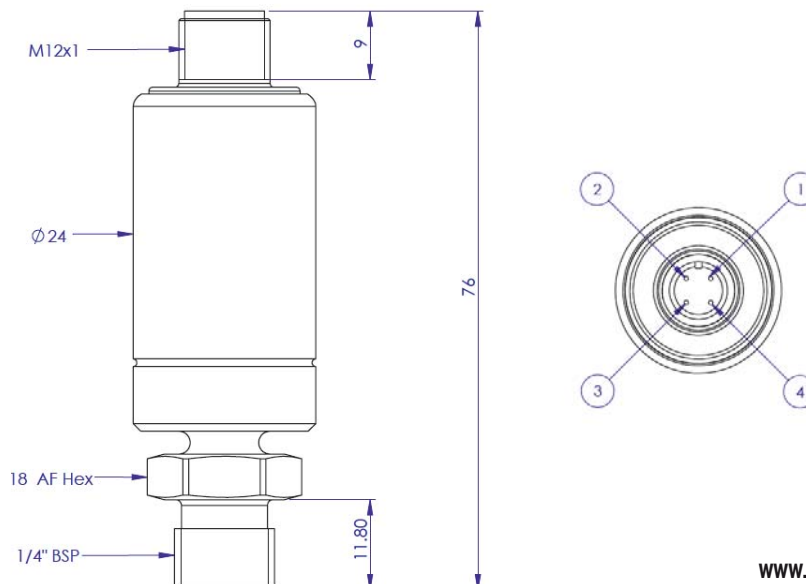
### Pressure Ranges and Passive mV/V Outputs

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 Signals 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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