IPSL-M12 SERIES

LOW RANGE INDUSTRIAL PRESSURE SENSOR WITH M12 4-PIN 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.

Features

- Piezo-resistive sensor
- Stainless steel body & diaphragm
- Accuracy <±0.25% FS BFSL
- 4-20mA or 0-5Vdc output
- Pressure ranges from 50mbar to 1000mbar
- M12 4-pin connector
- 1/4" BSP Pressure port connection

Options Available

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

Suitable Applications

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

SPECIFICATIONS

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] Ω
	3-wire	R_{min} = 10kΩ
Influence Effects	Supply	<0.005% FS / 1V
	Load	0.05% FSO / kΩ

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 100g
Installation Position	Any, small zero shift when tilted through 90°
Operation Life	> 100 x 10^6 cycles
Insulation Resistance	> 50MOhms at 50Vdc
Environmental Protection	IP67 (only when used with a similarly rated connector)

Electrical Protection

Supply Reverse Polarity	No damage/no function
Electromagnetic Compatibility	CE Compliant

Environmental Conditions

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 & 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

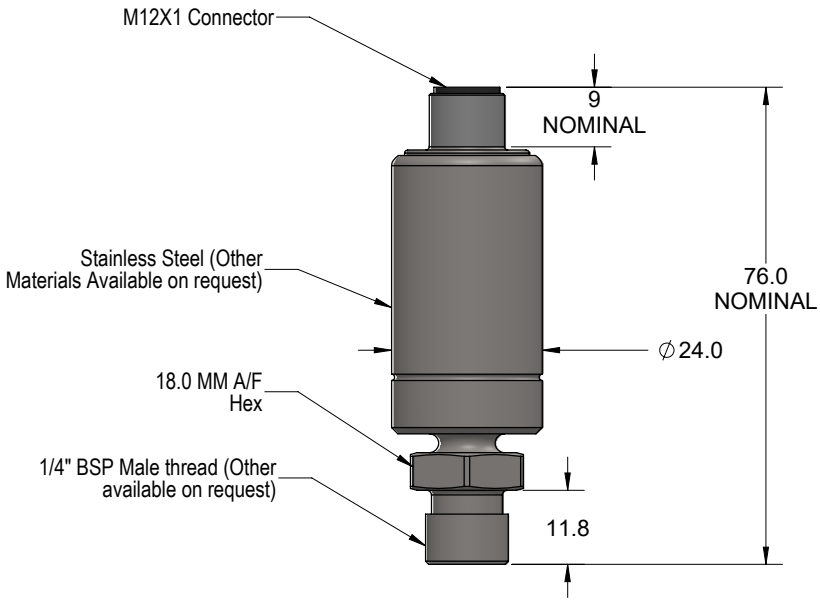
Output Signal & Supply Voltage DIN 43650

Wire System	Output	Supply Voltage	Connection	Pin No.
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
			+ve Output	Pin 3
			Ground	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

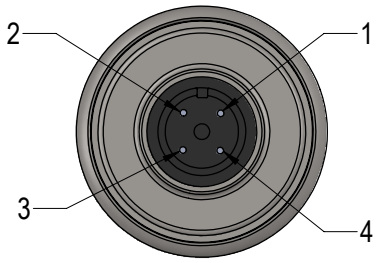
DIMENSIONS

All dimensions are in millimeters.



TOP VIEW

(PIN OUT ELECTRICAL CONNECTION)



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Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Sensata:

IPSL-G0050-5M12 IPSL-G0050-6M12