IPSLU SERIES

LOW RANGE INDUSTRIAL PRESSURE SENSOR



The IPSLU 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.*

There is a choice of internal O ring seals to ensure that the device is compatible with a wide range of media.

*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 pressure reference
- 1/4"NPT Pressure port connection.

Options Available

- Pressure range
- Output type

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	
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

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Material

Housing	303 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	> 50MOhms at 50Vdc

Electrical Protection

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

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

Nominal Pressure, Gauge	psi	1	2	10	15
Permissible Overpressure	psi	30	30	75	75

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Output Signal & Supply Voltage DIN 43650 A

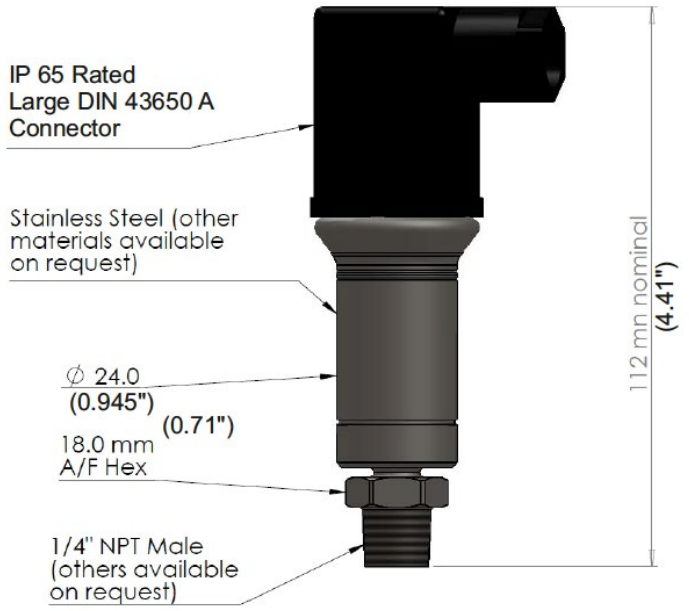
Wire System	Output	Supply Voltage	Connection	Pin No.
2-wire	4 - 20mA	9 – 32V dc	+ve Supply	Pin 1
			-ve Supply	Pin 2
			Ground	Earth pin
3-wire	0.5 - 4.5Vdc (non-ratiometric)	9 – 32V dc	+ve Supply	Pin 1
			-ve Supply	Pin 2
			+ve Supply	Pin 3
			Ground	Earth Pin

Part No	Pressure Range	Output
IPSLU-GP001-5	0-1 psi G	4-20mA
IPSLU-GP002-5	0-2 psi G	4-20mA
IPSLU-GP010-5	0-10 psi G	4-20mA
IPSLU-GP001-D	0-1 psi G	0.5 to 4.5V 3Wire
IPSLU-GP002-D	0-2 psi G	0.5 to 4.5V 3Wire
IPSLU-GP015-D	0-15 psi G	0.5 to 4.5V 3Wire

(Custom ranges and outputs available on request)

DIMENSIONS

All dimensions are in millimeters.



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