

# IPSLU series

## Low Range Industrial Pressure Sensor



- Piezo-resistive sensor
- Stainless steel body & diaphragm
- Accuracy  $\leq \pm 0.25\%$  FS BFSL
- Various outputs including Volts and mA.
- Pressure ranges from 1 psi to 15 psi
- Gauge or Absolute pressure reference

### Options available on the IPSLU pressure transmitter.

Pressure range  
 Pressure reference (G or Abs)  
 Output type

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.

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)	$\leq \pm 0.25\%$ / FS (BFSL) for gauge, $\leq \pm 0.5\%$ for Absolute	
Setting Errors (offsets)	2-wire	Zero & Full Scale, $\leq \pm 0.5\%$ / FS
	3-wire	Zero & Full Scale, $\leq \pm 0.5\%$ / 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	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°
Operational Life	$> 100 \times 10^6$ cycles
Insulation resistance	$> 50M\Omega$ at 50Vdc

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

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

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ISO9001 CERTIFIED



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### Pressure Ranges

Nominal Pressure, Gauge, psi	0.75	1.5	3.75	7.5	11.25	15
Nominal Pressure, Absolute psi				7.5	11.25	15
Permissible Overpressure psi	30	30	30	75	75	75

### Output Signals and Supply Voltages **DIN 46350**

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	0.5 - 4.5Vdc (non-ratiometric) 0-10Vdc	9-32 Vdc 13-32Vdc	+ve Supply -ve Supply +ve Output Ground	Pin 1 Pin 2 Pin 3 Earth Pin

Part No	Pressure Range	Output	Part No	Pressure Range	Output
IPSLU-GP001-5	0-1 psi G	4-20mA	IPSLU-G0050-5	0 - 50mbar G	4-20mA
IPSLU-GP002-5	0-2 psi G	4-20mA	IPSLU-G0100-5	0 - 100mbar G	4-20mA
IPSLU-GP005-5	0-5 psi G	4-20mA	IPSLU-G0250-5	0 - 250mbar G	4-20mA
IPSLU-GP008-5	0-8 psi G	4-20mA	IPSLU-G0500-5	0 - 500mbar G	4-20mA
IPSLU-GP010-5	0-10 psi G	4-20mA	IPSLU-G0750-5	0 - 750mbar G	4-20mA
IPSLU-GP015-5	0-15 psi G	4-20mA	IPSLU-G1000-5	0 - 1000mbar G	4-20mA
IPSLU-GP001-D	0-1 psi G	0.5 to 4.5V 3Wire	IPSLU-G0050-D	0 - 50mbar G	0.5 to 4.5V 3Wire
IPSLU-GP002-D	0-2 psi G	0.5 to 4.5V 3Wire	IPSLU-G0100-D	0 - 100mbar G	0.5 to 4.5V 3Wire
IPSLU-GP005-D	0-5 psi G	0.5 to 4.5V 3Wire	IPSLU-G0250-D	0 - 250mbar G	0.5 to 4.5V 3Wire
IPSLU-GP008-D	0-8 psi G	0.5 to 4.5V 3Wire	IPSLU-G0500-D	0 - 500mbar G	0.5 to 4.5V 3Wire
IPSLU-GP010-D	0-10 psi G	0.5 to 4.5V 3Wire	IPSLU-G0750-D	0 - 750mbar G	0.5 to 4.5V 3Wire
IPSLU-GP015-D	0-15 psi G	0.5 to 4.5V 3Wire	IPSLU-G1000-D	0 - 1000mbar G	0.5 to 4.5V 3Wire
IPSLU-AP005-5	0-5 psi A	4-20mA	IPSLU-A0500-5	0 - 500mbar Abs	4-20mA
IPSLU-AP010-5	0-10 psi A	4-20mA	IPSLU-A0750-5	0 - 750mbar Abs	4-20mA
IPSLU-AP015-5	0-15 psi A	4-20mA	IPSLU-A1000-5	0 - 1000mbar Abs	4-20mA

(Custom ranges and outputs available on request)

