IPSLU series

Low Range Industrial Pressure Sensor



- ***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 or Absolute pressure reference***

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 certificate.

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.

Options available on the IPSLU pressure transmitter.

Pressure range
Pressure reference (G or Abs)
Output type

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

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 90º
Operational Life	> 100x 10^6 cycles
Insulation resistance	> 50MOhms 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	-40ºC to +125ºC
Ambient Temperature	-20ºC to +80ºC
Storage temperature	-40ºC to +125ºC
Compensated temperature range	+20ºC to +80ºC
Thermal Zero Shift (TZS)	<±0.04% /FS/ºC
Thermal Span Shift	<-0.015% /ºC

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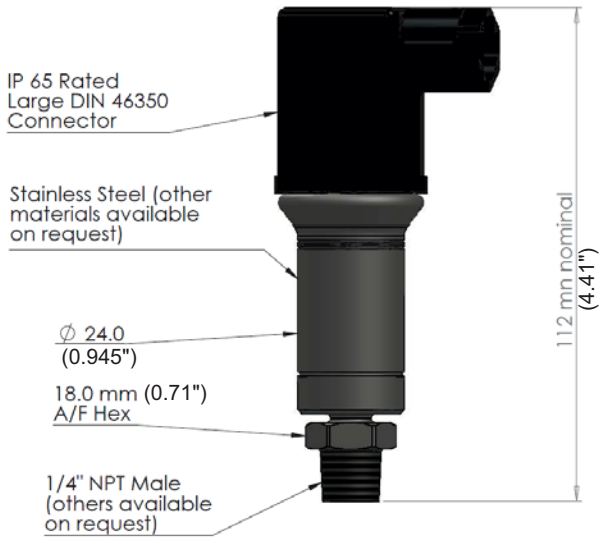
Pressure Ranges and Passive mV/V Outputs							
Nominal Pressure, Gauge,	psi	0.75	1.5	3.75	7.5	11.25	15
Nominal Pressure, Absolute	psi				7.5	11.25	15
Permissible Overpressure	psi	30	30	30	75	75	75

Output Signals and Supply Voltages		DIN 43650		
Wire system	Output	Supply Volts	Connection	Pin No.
2-wire	4-20mA	9-32Vdc	+ve Supply	Pin 1
			-ve Supply	Pin 2
			Ground	Earth pin
3-wire	0.5 - 4.5Vdc (non-ratiometric)	9-32 Vdc	+ve Supply	Pin 1
	0-10Vdc	13-32Vdc	-ve Supply	Pin 2
			+ve Output	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-GP005-5	0-5 psi G	4-20mA
IPSLU-GP008-5	0-8 psi G	4-20mA
IPSLU-GP010-5	0-10 psi G	4-20mA
IPSLU-GP015-5	0-15 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-GP005-D	0-5 psi G	0.5 to 4.5V 3Wire
IPSLU-GP008-D	0-8 psi G	0.5 to 4.5V 3Wire
IPSLU-GP010-D	0-10 psi G	0.5 to 4.5V 3Wire
IPSLU-GP015-D	0-15 psi G	0.5 to 4.5V 3Wire
IPSLU-AP005-5	0-5 psi A	4-20mA
IPSLU-AP010-5	0-10 psi A	4-20mA
IPSLU-AP015-5	0-15 psi A	4-20mA

Part No	Pressure Range	Output
IPSLU-G0050-5	0 - 50mbar G	4-20mA
IPSLU-G0100-5	0 - 100mbar G	4-20mA
IPSLU-G0250-5	0 - 250mbar G	4-20mA
IPSLU-G0500-5	0 - 500mbar G	4-20mA
IPSLU-G0750-5	0 - 750mbar G	4-20mA
IPSLU-G1000-5	0 - 1000mbar G	4-20mA
IPSLU-G0050-D	0 - 50mbar G	0.5 to 4.5V 3Wire
IPSLU-G0100-D	0 - 100mbar G	0.5 to 4.5V 3Wire
IPSLU-G0250-D	0 - 250mbar G	0.5 to 4.5V 3Wire
IPSLU-G0500-D	0 - 500mbar G	0.5 to 4.5V 3Wire
IPSLU-G0750-D	0 - 750mbar G	0.5 to 4.5V 3Wire
IPSLU-G1000-D	0 - 1000mbar G	0.5 to 4.5V 3Wire
IPSLU-A0500-5	0 - 500mbar Abs	4-20mA
IPSLU-A0750-5	0 - 750mbar Abs	4-20mA
IPSLU-A1000-5	0 - 1000mbar Abs	4-20mA

(Custom ranges and outputs available on request)



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IPSLU 2015

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