

## IPSLU SERIES

### LOW RANGE INDUSTRIAL PRESSURE SENSOR



CE

#### Options Available

- Pressure range
- Output type

#### SPECIFICATIONS

#### Performance

<b>Accuracy (Non-linearity &amp; Hysteresis)</b>	<math>\pm 0.25\% / FS</math> (BFSL) for gauge	
<b>Setting Errors (Offsets)</b>	2-wire	Zero & Full Scale, <math>\pm 0.5\% / FS</math>
	3-wire	Zero & Full Scale, <math>\pm 0.5\% / FS</math>
<b>Permissible Load</b>	2-wire	$R_{max} = [(Supply - 9min) / 0.02] \Omega$
	3-wire	$R_{min} = 10k\Omega$
<b>Influence Effects</b>	Supply	<math>< 0.005\% FS / 1V</math>
	Load	0.05% FSO / $k\Omega$

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 <math>\pm 0.25\% FS</math> BFSL
- Various outputs including Volts and mA
- Pressure ranges from 1 psi to 15 psi
- Gauge pressure reference
- 1/4" NPT Pressure port connection.

#### Suitable Applications

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

## Material

<b>Housing</b>	303 Stainless Steel
<b>"O" Ring Seals</b>	Viton
<b>Diaphragm</b>	316L Stainless Steel
<b>Media Wetted Parts</b>	Housing & connection, 'O' ring seal, diaphragm

## Miscellaneous

<b>Current Consumption</b>	2-wire Limits at 28mA
	3-wire Typical 6mA
<b>Weight</b>	Approx 3.5oz (100g)
<b>Installation Position</b>	Any, small zero shift when tilted through 90°
<b>Operation Life</b>	> 100 x 10 <sup>6</sup> cycles
<b>Insulation Resistance</b>	> 50MΩ at 50Vdc

## Electrical Protection

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

## Environmental Conditions

<b>Shock</b>	100g / 11s
<b>Vibration</b>	10g RMS (20 - 2000Hz)
<b>Media Temperature</b>	-40°C to +125°C
<b>Ambient Temperature</b>	-20°C to +80°C
<b>Storage Temperature</b>	-40°C to +125°C
<b>Humidity</b>	5% to 95% RH non-condensing

## Temperature & Thermal Effects

<b>Compensated Temperature Range</b>	+20°C to +80°C
<b>Thermal Zero Shift (TZS)</b>	<±0.04% /FS/°C
<b>Thermal Span Shift</b>	<-0.015% /°C

## PRESSURE RANGES

<b>Nominal Pressure, Gauge</b>	psi	1	2	10	15
<b>Permissible Overpressure</b>	psi	30	30	75	75

## Output Signal & Supply Voltage DIN 43650 A

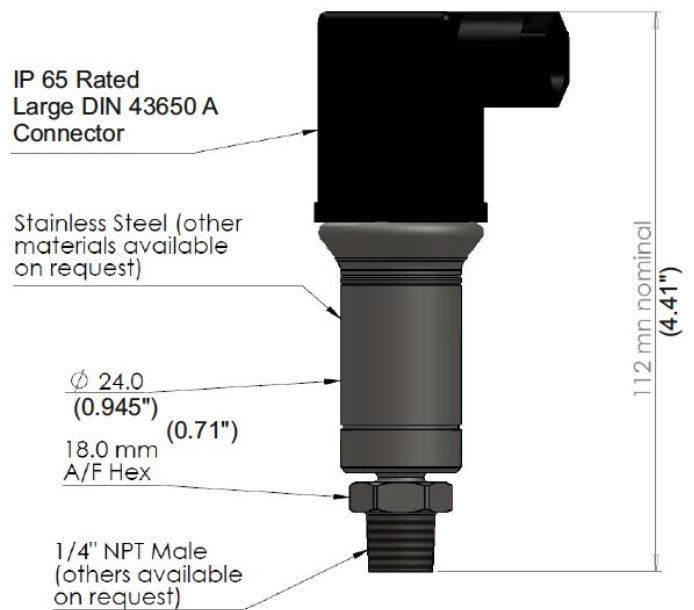
Wire System	Output	Supply Voltage	Connection	Pin No.
2-wire	4 - 20mA	9 – 32V dc	+ve Supply	Pin 1
			-ve Supply	Pin 2
			Ground	Earth pin
3-wire	0.5 - 4.5Vdc (non-ratiometric)	9 – 32V dc	+ve Supply	Pin 1
			-ve Supply	Pin 2
			+ve Supply	Pin 3
			Ground	Earth Pin

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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Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA.

## CONTACT US

+44 (0)1202 897969  
 c3w\_sales@sensata.com  
 Cynergy3 Components Ltd.  
 7 Cobham Road,  
 Ferndown Industrial Estate,  
 Wimborne, Dorset,  
 BH21 7PE, United Kingdom