

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 $\leq \pm 0.25\%$ FS BFSL
- Various outputs including Volts and mA
- Pressure ranges from 1 psi to 15 psi
- Gauge or Absolute pressure reference

Suitable Applications

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

Options Available

- Pressure range
- Pressure reference (G or Abs)
- Output type



SPECIFICATIONS

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

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	> 50MΩ at 50Vdc

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

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 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
	0 - 10Vdc	13 – 32V dc	+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

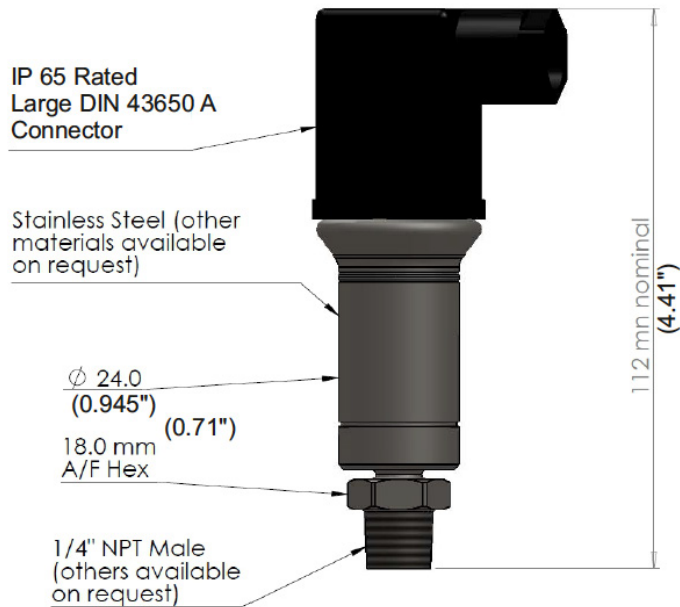
Part No	Pressure Range	Output
IPSLU-G0050-5	0 - 50mbar G	4-20mA
IPSLU-G0100-5	0 - 100mbar G	4-20mA
IPSLU-G0250-5	0 - 250mbar G	4-20mA
IPSLU-G0500-5	0 - 500mbar G	4-20mA
IPSLU-G0750-5	0 - 750mbar G	4-20mA
IPSLU-G1000-5	0 - 1000mbar G	4-20mA
IPSLU-G0050-D	0 - 50mbar G	0.5 to 4.5V 3Wire
IPSLU-G0100-D	0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



DIMENSIONS

All dimensions are in millimeters.



Made in the UK

Page 4

Sensata Technologies, Inc. ("Sensata") data sheets are solely intended to assist designers ("Buyers") who are developing systems that incorporate Sensata products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, evaluation and judgment in designing Buyer's systems and products. Sensata data sheets have been created using standard laboratory conditions and engineering practices. Sensata has not conducted any testing other than that specifically described in the published documentation for a particular data sheet. Sensata may make corrections, enhancements, improvements and other changes to its data sheets or components without notice.

Buyers are authorized to use Sensata data sheets with the Sensata component(s) identified in each particular data sheet. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER SENSATA INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN. SENSATA DATA SHEETS ARE PROVIDED "AS IS". SENSATA MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE DATA SHEETS OR USE OF THE DATA SHEETS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. SENSATA DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO SENSATA DATA SHEETS OR USE THEREOF.

All products are sold subject to Sensata's terms and conditions of sale supplied at www.sensata.com SENSATA ASSUMES NO LIABILITY FOR APPLICATIONS ASSISTANCE OR THE DESIGN OF BUYERS' PRODUCTS. BUYER ACKNOWLEDGES AND AGREES THAT IT IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH ALL LEGAL, REGULATORY AND SAFETY-RELATED REQUIREMENTS CONCERNING ITS PRODUCTS, AND ANY USE OF SENSATA COMPONENTS IN ITS APPLICATIONS, NOTWITHSTANDING ANY APPLICATIONS-RELATED INFORMATION OR SUPPORT THAT MAY BE PROVIDED BY SENSATA.

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