

## IPSL 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 50 mbar to 1000 mbar**
- **Gauge or Absolute pressure reference**

#### Options available on the IPSL pressure transmitter.

Pressure range  
Pressure reference (G or Abs)  
Output type

The IPSL 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	$\leq 0.005\%$ 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 100g
Installation position	Any, small zero shift when tilted through 90°
Operational Life	> 100x 10 <sup>6</sup> 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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IPSL 2018

ISO9001 CERTIFIED



Made in the UK

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# IPSL series

## Low Range Industrial Pressure Sensor

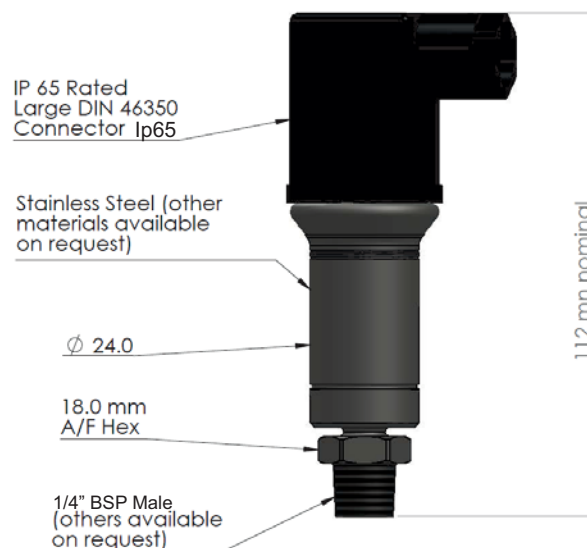
### Pressure Ranges and Passive mV/V Outputs

Nominal Pressure, Gauge, mbar	50	100	250	500	750	1000
Nominal Pressure, Absolute mbar				500	750	1000
Permissible Overpressure mbar	2 bar	2 bar	2 bar	5 bar	5 bar	5 bar

### Output Signals and Supply Voltages DIN 43650

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)	9-32 Vdc	+ve Supply -ve Supply +ve Output Ground	Pin 1 Pin 2 Pin 3 Earth Pin

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



# Mouser Electronics

Authorized Distributor

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## Sensata:

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