

## IPSL SERIES

### LOW RANGE INDUSTRIAL PRESSURE SENSOR



CE

#### Options Available

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

#### SPECIFICATIONS

#### Performance

<b>Accuracy (Non-linearity &amp; Hysteresis)</b>	<math>\pm 0.25\% / FS</math> (BFSL) for gauge, <math>\pm 0.5\%</math> for Absolute	
<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 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.

\*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 50 mbar to 1000 mbar
- 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

## 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 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 Compliant

## 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 & Passive mV/V Outputs

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

### Output Signal & Supply Voltage DIN 43650

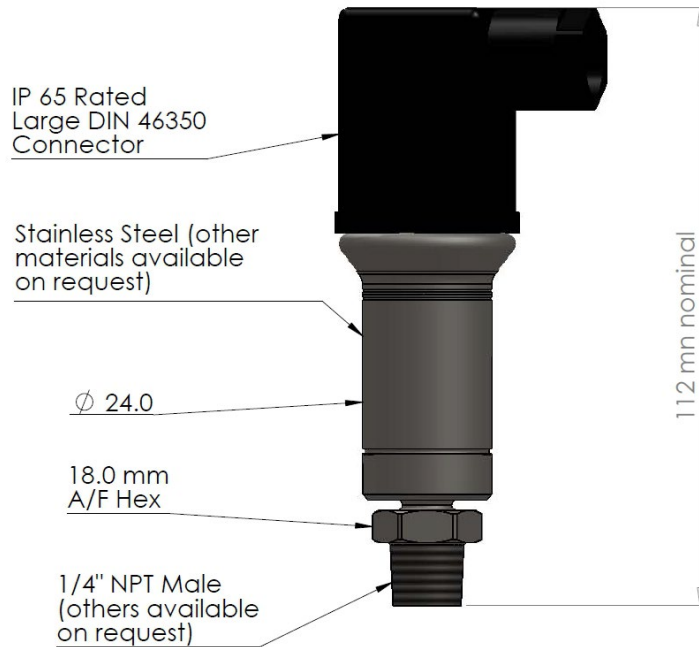
Wire System	Output	Supply Voltage	Connection	Pin No.
2-wire	4 - 20mA	9 – 32V dc	+ve Supply	Pin 1
			-ve Supply	Pin 2
			Ground	Earth pin
3-wire	0.5 - 4.5Vdc (non-ratiometric)	9 – 32V dc	+ve Supply	Pin 1
			-ve Supply	Pin 2
			+ve Output	Pin 3
			Ground	Earth pin

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



## DIMENSIONS

All dimensions are in millimeters.



Made in the UK

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