



ENGLISH

## Datasheet

**Stock No.s:** 8285690, 8285694, 8285701, 8285704, 8285707, 8285710, 8285713, 8285717, 8285723, 8285726, 8285729, 8285732, 8285735, 8285739, 8285748

# 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 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.

### 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	$< 0.005\%$ 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 diaphragm	Housing & connection, "O" ring seal,

### 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	$> 100 \times 10^6$ 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	$< -0.015\%$ /°C



Made in the UK

IPSL RS Pro 2016

Specifications are subject to change without prior notice.



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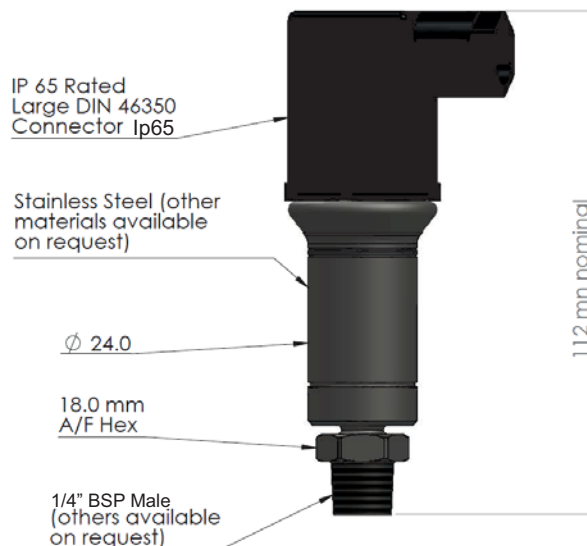
## Pressure Ranges and Passive mV/V Outputs

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

RS Stock No.	Part No.	Pressure Range	Output
8285707	IPSL-G0050-5	0 - 50mbar G	4-20mA
8285710	IPSL-G0100-5	0 - 100mbar G	4-20mA
8285717	IPSL-G0250-5	0 - 250mbar G	4-20mA
8285729	IPSL-G0500-5	0 - 500mbar G	4-20mA
8285732	IPSL-G0750-5	0 - 750mbar G	4-20mA
8285739	IPSL-G1000-5	0 - 1000mbar G	4-20mA
8285701	IPSL-G0050-D	0 - 50mbar G	0.5 to 4.5V 3Wire
8285713	IPSL-G0100-D	0 - 100mbar G	0.5 to 4.5V 3Wire
8285726	IPSL-G0250-D	0 - 250mbar G	0.5 to 4.5V 3Wire
8285723	IPSL-G0500-D	0 - 500mbar G	0.5 to 4.5V 3Wire
8285735	IPSL-G0750-D	0 - 750mbar G	0.5 to 4.5V 3Wire
8285748	IPSL-G1000-D	0 - 1000mbar G	0.5 to 4.5V 3Wire
8285690	IPSL-A0500-5	0 - 500mbar Abs	4-20mA
8285694	IPSL-A0750-5	0 - 750mbar Abs	4-20mA
8285704	IPSL-A1000-5	0 - 1000mbar Abs	4-20mA



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