

IPSLUAT series

Low Range, Intrinsically Safe Pressure Sensor



Approvals:-
ATEX / IECEx
II 1G Ex ia IIC T4 Ga (Ta -see schedule)



- Piezo-resistive sensor
- Stainless steel body & diaphragm
- Accuracy $\leq \pm 0.25\%$ FS BFSL
- Pressure ranges from 1psi to 15psi
- Gauge or Absolute pressure reference



The IPSLUAT is suitable for use in a wide range of applications in hazardous areas. 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.

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

Options available on the IPSLUAT pressure transmitter.

Pressure range
Pressure reference (G or Abs)

Material Specifications

| | |
|--------------------|--|
| Housing | 316 Stainless Steel |
| "O" ring seals | Viton |
| Diaphragm | 316L Stainless Steel |
| Media wetted parts | Housing & connection, "O" ring seal, diaphragm |

Miscellaneous

| | |
|-----------------------|---|
| Weight | Approx 100g |
| Installation position | Any, small zero shift when tilted through 90° |
| Operational Life | > 100x 10 ⁶ cycles |
| Insulation resistance | > 50MΩ 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) |

Environment & Thermal Effects

| | |
|-------------------------------|--------------------------|
| Media Temperature | -20°C to +75°C |
| Storage temperature | -40°C to +80°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 |
| Permissible environment | Zone 0 |

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ISO9001 CERTIFIED



Made in the UK

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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 and Supply Voltage

| Wire system | Output | Supply Volts | DIN 43650 Connection | Pin No. |
|-------------|--------|--------------|----------------------|-----------|
| 2-wire | 4-20mA | 10-28Vdc | +ve Supply | Pin 1 |
| | | | -ve Supply | Pin 2 |
| | | | Ground | Earth pin |

| Part Number | Pressure Rating |
|-----------------|-----------------|
| IPSLUAT-GP001-5 | 0 - 1psi G |
| IPSLUAT-GP002-5 | 0 - 2psi G |
| IPSLUAT-GP005-5 | 0 - 5psi G |
| IPSLUAT-GP008-5 | 0 - 8psi G |
| IPSLUAT-GP010-5 | 0 - 10psi G |
| IPSLUAT-GP015-5 | 0 - 15psi G |
| IPSLUAT-AP005-5 | 0 - 5psi Abs |
| IPSLUAT-AP010-5 | 0 - 10psi Abs |
| IPSLUAT-AP015-5 | 0 - 15psi Abs |

Mechanical Dimensions

