

IPSUAT Series

Intrinsically Safe Pressure Transducer



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



- Piezo-resistive thick film ceramic sensor
- Stainless steel body
- Accuracy $<\pm 0.25\%$ FS BFSL
- Pressure ranges from vacuum to 5800psi

The IPSUAT series is ideally suited for use in a wide range of industrial applications in hazardous areas. The probe uses a piezo-resistive ceramic sensor, giving excellent media compatibility within a stainless steel housing

The electronics incorporate a microprocessor based amplifier, requiring no adjusting and giving stable electronics, especially industrial applications.

Each device is temperature compensated, calibrated and supplied with a traceable serial number and calibration certificate.



Electrical Protection

| | |
|-------------------------------|--------------------------------|
| Supply reverse polarity | No damage but also no function |
| Electromagnetic compatibility | CE Compliant |

Mechanical Stability

| | |
|-----------|-----------------------|
| Shock | 100g / 11s |
| Vibration | 10g RMS (20 - 2000Hz) |

Environment & Thermal Effects

| | |
|--------------------------------|--|
| Operating Temperature | -20°C to +120°C |
| Storage temperature | -40°C to +110°C |
| Compensated temperature range | +20°C to +80°C |
| Thermal Zero Shift (TZS) | $<\pm 0.04\%$ /FS/°C |
| Thermal Span Shift | $<\pm 0.015\%$ /°C |
| Permissible environment zone 0 | -20°C to +60°C with patm 0.8 to 1.1 bar |

Performance

| | |
|---------------------------------------|--------------------------------------|
| Accuracy (Non-Linearity & Hysteresis) | $<\pm 0.25\%$ / FS (BFSL) |
| Setting Errors (offsets) | Zero & Full Scale, $<\pm 0.5\%$ / FS |

Material Specifications

| | |
|-----------------------|--|
| Housing | 316 Stainless Steel |
| "O" ring seals | Viton |
| Diaphragm | Ceramic Al ₂ O ₃ 96% |
| Media wetted parts | Housing & connection, "O" ring seal, diaphragm |
| Weight | Approx 100g |
| Installation position | Any |
| Operational Life | $> 100 \times 10^6$ cycles |
| Insulation resistance | $> 50\text{M}\Omega$ at 50Vdc |

Pressure Ranges

| | | | | | | | | | |
|------------------------------|----------|-----------|-----------|-------------|------------|------------|------|------|------|
| Nominal Pressure, Gauge, psi | 15 | 30 | 75 | 150 | 300 | 750 | 1500 | 3750 | 6000 |
| Compound range psi | -15 to 0 | -15 to 30 | -15 to 75 | -15 to 1235 | -15 to 285 | -15 to 360 | | | |
| Permissible Overpressure psi | 30 | 60 | 150 | 300 | 600 | 1500 | 3000 | 6000 | 9750 |
| Burst Pressure psi | 60 | 75 | 180 | 375 | 750 | 1800 | 3750 | 7500 | 9750 |

Output Signal and Supply Voltage

| Wire system | Output | Supply Voltage | Connection | Pin Nos |
|-------------|--------|----------------|------------|---|
| 2-wire | 4-20mA | 10-28Vdc | +ve Supply | Pin 1 -ve Supply Pin 2 Ground Earth Pin |

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ISO9001 CERTIFIED

IPSUAT 2016

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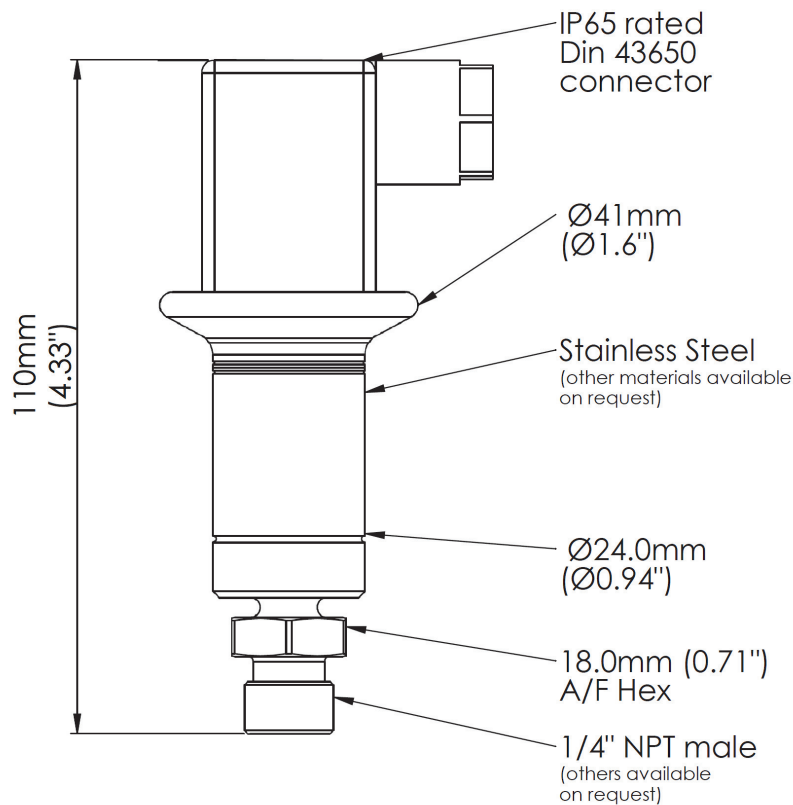
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| Part Number | Pressure Rating |
|----------------|---------------------|
| IPSUAT-GP015-5 | 0-15psi G |
| IPSUAT-GP030-5 | 0-30psi G |
| IPSUAT-GP075-5 | 0-75psi G |
| IPSUAT-C0446-5 | -14.5 to +150 psi G |
| IPSUAT-GP100-5 | 0-100psi G |
| IPSUAT-GP150-5 | 0-150psi G |
| IPSUAT-C0447-5 | -14.5 to +350 psi G |
| IPSUAT-GP300-5 | 0-300psi G |
| IPSUAT-GP750-5 | 0-750psi G |
| IPSUAT-GP1K5-5 | 0-1500psi G |
| IPSUAT-GP3K6-5 | 0-3600psi G |
| IPSUAT-GP5K8-5 | 0-5800psi G |

Mechanical Dimensions



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