

IPSAT Series

Intrinsically Safe Pressure Transducer



Approvals:-
ATEX / IECEx

Ex II 1G Ex ia IIC T4 Ga (Ta -see schedule)



- **Piezo-resistive thick film ceramic sensor**
- **Stainless steel body**
- **Accuracy <±0.25% FS BFSL**
- **Pressure ranges from -1 to 400 bar**

The IPSAT 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 data.



| Electrical Protection | | Performance | |
|-------------------------------|--------------------------------|---------------------------------------|------------------------------------------------|
| Supply reverse polarity | No damage but also no function | Accuracy (Non-Linearity & Hysteresis) | <±0.25% / FS (BFSL) |
| Electromagnetic compatibility | | Setting Errors (offsets) | Zero & Full Scale, <±0.5% / FS |
| Mechanical Stability | | Material Specifications | |
| Shock | 100g / 11s | Housing | 316 Stainless Steel |
| Vibration | 10g RMS (20 - 2000Hz) | “O” ring seals | Viton |
| Environment & Thermal Effects | | Diaphragm | Ceramic Al ₂ O ₃ 96% |
| Ambient Temperature Range | -20°C to +75°C | Media wetted parts | Housing & connection, “O” ring seal, diaphragm |
| Storage temperature | -20°C to +80°C | Weight | Approx 100g |
| Compensated temperature range | +20°C to +80°C | Installation position | Any |
| Thermal Zero Shift (Tzs) | <±0.04% /FS/°C | Operational Life | > 100x 10 ⁶ cycles |
| Thermal Span Shift | <±0.015% /°C | Insulation resistance | > 50MΩ at 50Vdc |
| Permissible environment | Zone 0 | | |

| Pressure Ranges | | | | | | | | | | |
|--------------------------|-----|---------|---------|---------|---------|----------|----------|-----|-----|-----|
| Nominal Pressure, Gauge, | bar | 1 | 2 | 5 | 10 | 20 | 50 | 100 | 250 | 400 |
| Compound range | bar | -1 to 0 | -1 to 2 | -1 to 5 | -1 to 9 | -1 to 19 | -1 to 24 | | | |
| Permissible Overpressure | bar | 2 | 4 | 10 | 20 | 40 | 100 | 200 | 400 | 650 |
| Burst Pressure | bar | 4 | 5 | 12 | 25 | 50 | 120 | 250 | 500 | 650 |

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

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IPSAT 2017



Made in the UK

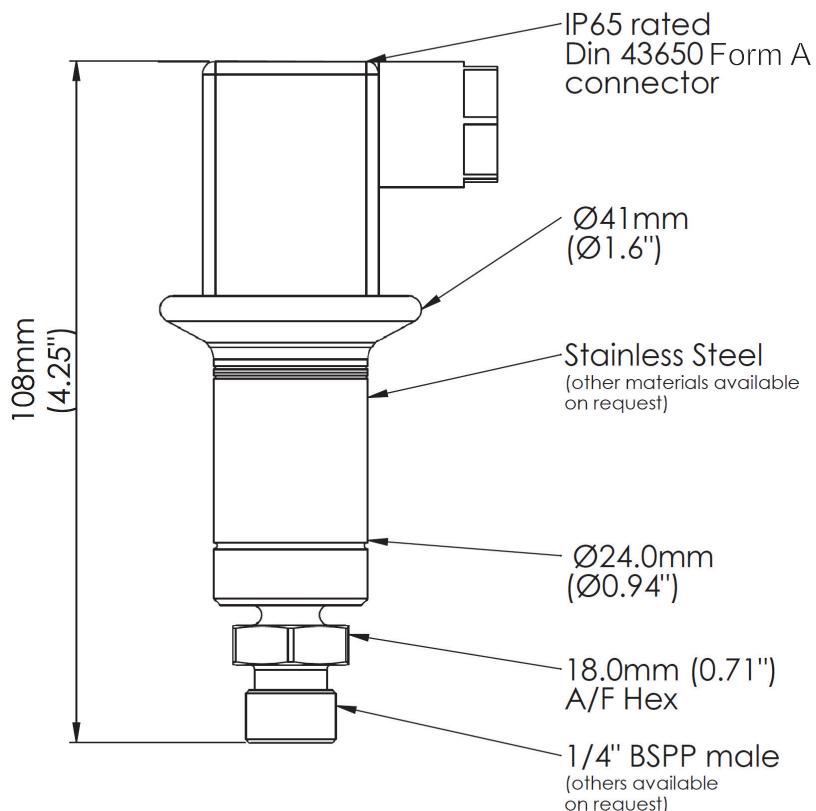
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| Part Number | Pressure Rating |
|---------------|-----------------|
| IPSAT-G1000-5 | 0 - 1 Bar G |
| IPSAT-G6000-5 | 0 - 6 Bar G |
| IPSAT-GM1P9-5 | -1 to +9 Bar G |
| IPSAT-G1002-5 | 0 - 10 Bar G |
| IPSAT-G1602-5 | 0 - 16 bar G |
| IPSAT-C0184-5 | -1 to +24 Bar G |
| IPSAT-G2502-5 | 0 - 25 Bar G |
| IPSAT-G4002-5 | 0 - 40 Bar G |
| IPSAT-G1003-5 | 0 - 100 Bar G |
| IPSAT-G2503-5 | 0 - 250 Bar G |
| IPSAT-G4003-5 | 0 - 400 Bar G |

Mechanical Dimensions



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