

# IPSAT Series

## Intrinsically Safe Pressure Transducer



Approvals:-  
ATEX / IECEx

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



- **Piezo-resistive thick film ceramic sensor**
- **Stainless steel body**
- **Accuracy  $\leq \pm 0.25\%$  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

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

Ambient Temperature Range	-20°C to +75°C
Storage temperature	-20°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	$\leq \pm 0.015\%$ /°C
Permissible environment	Zone 0

### Performance

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

### Material Specifications

Housing	316 Stainless Steel
"O" ring seals	Viton
Diaphragm	Ceramic Al <sub>2</sub> O <sub>3</sub> 96%
Media wetted parts	Housing & connection, "O" ring seal, diaphragm
Weight	Approx 100g
Installation position	Any
Operational Life	> 100x 10 <sup>6</sup> cycles
Insulation resistance	> 50MΩ at 50Vdc

### 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

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

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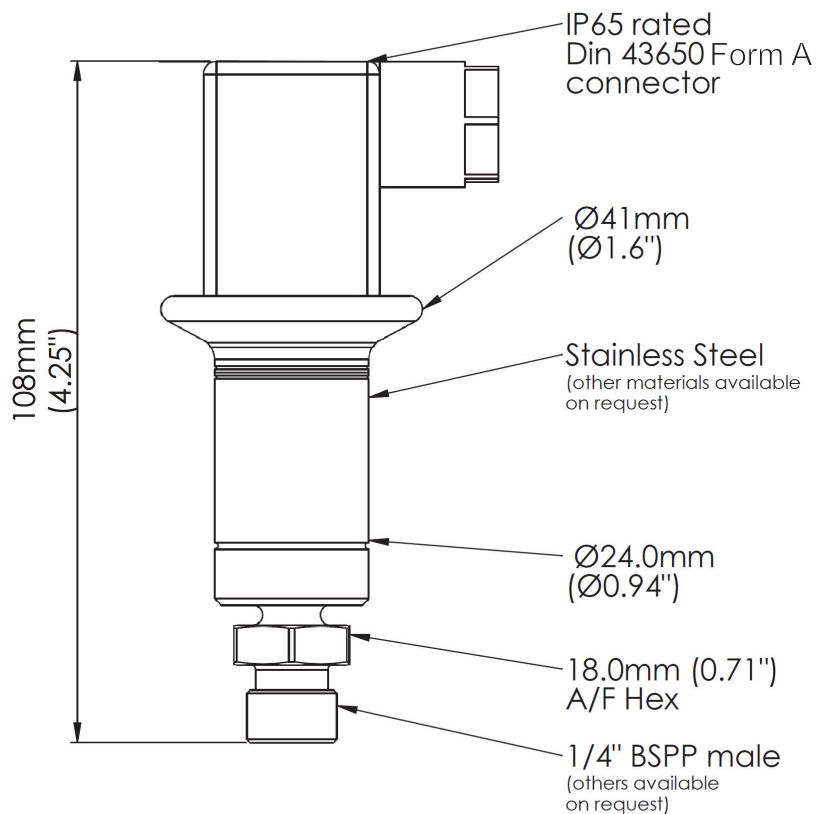
# IPSAT Series

## Intrinsically Safe Pressure Transducer



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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