

IPSAT Series

Intrinsically Safe Pressure Transducer - 1/4" BSP



Approvals:-
ATEX / IECEx

⊕ II 1G Ex ia IIC T4 Ga (Ta -20°C to +75°C)

⊕ II 1D Ex ia IIIC T135°C Da (Ta -20°C to +65°C)



- Piezo-resistive thick film ceramic sensor
- Stainless steel body
- Accuracy $\leq \pm 0.25\%$ FS BFSL
- Pressure ranges from -1 to 400 bar
- 4-20mA Output
- Gas and Dust approvals



The IPSAT series is ideally suited for use in a wide range of industrial applications in hazardous areas. The transducer uses a piezo-resistive ceramic sensor in a stainless steel housing giving excellent media compatibility for the harshest of applications.

The product is both ATEX and IECEx approved for use in zone 0 gaseous and dust laden environments, and is compatible with off-the-shelf safety barriers.

Each transducer is temperature compensated, calibrated and supplied with a traceable serial number and calibration data.

Pressure Ranges

Calibrated Pressure, Gauge, bar	1	6	10	16	25	40	100	250	400
Compound range bar			-1 to 9		-1 to 24				
Permissible Overpressure bar	2	15	15	35	100	100	150	500	500
Burst Pressure bar	3	20	20	50	120	120	200	650	650

Output Signal and Supply Voltage

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

Performance

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

Environmental Conditions

Shock	100g / 11s
Vibration	10g RMS (20 - 2000Hz)
Ambient Temperature Range *	-20°C to +75°C (65°C for dust)
Storage temperature	-20°C to +80°C
Humidity	5% to 95% RH non-condensing

* Ensure that media temperature does not cause transducer temperature to exceed the ambient temperature rating

Electrical Protection

Supply reverse polarity	No damage but also no function
Insulation resistance	> 500Vac

Material Specifications

Housing	316 Stainless Steel
Seals	Viton
Diaphragm	Ceramic Al ₂ O ₃ 96%
Media wetted parts	Housing & connection, "O" ring seal, diaphragm
Weight	Approx 100g
Installation position	Any

Thermal Effects

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 (typical)

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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

