

# IPSAT 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 -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 certificate.

Electrical Protection		Performance	
Supply reverse polarity	No damage but also no function	Accuracy (Non-Linearity & Hysteresis)	$<\pm 0.25\%$ / FS (BFSL)
Electromagnetic compatibility	CE Compliant	Setting Errors (offsets)	Zero & Full Scale, $<\pm 0.5\%$ / 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 <sub>2</sub> O <sub>3</sub> 96%
Operating Temperature	-20°C to +120°C	Media wetted parts	Housing & connection, "O" ring seal, diaphragm
Storage temperature	-40°C to +110°C	Weight	Approx 100g
Compensated temperature range	+20°C to +80°C	Installation position	Any
Thermal Zero Shift (TZS)	$<\pm 0.04\%$ / FS/°C	Operational Life	$> 100 \times 10^6$ cycles
Thermal Span Shift	$<\pm 0.015\%$ /°C	Insulation resistance	$> 50\text{M}\Omega$ at 50Vdc
Permissible environment zone 0	-20°C to +60°C with patm 0.8 to 1.1 bar		

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

Cynergy3 Components Ltd.  
7 Cobham Road  
Ferndown Industrial Estate  
Wimborne, Dorset BH21 7PE  
Telephone +44 (0) 1202 897969  
Email:sales@cynergy3.com

ISO9001 CERTIFIED  
IPSAT 2016

www.cynergy3.com

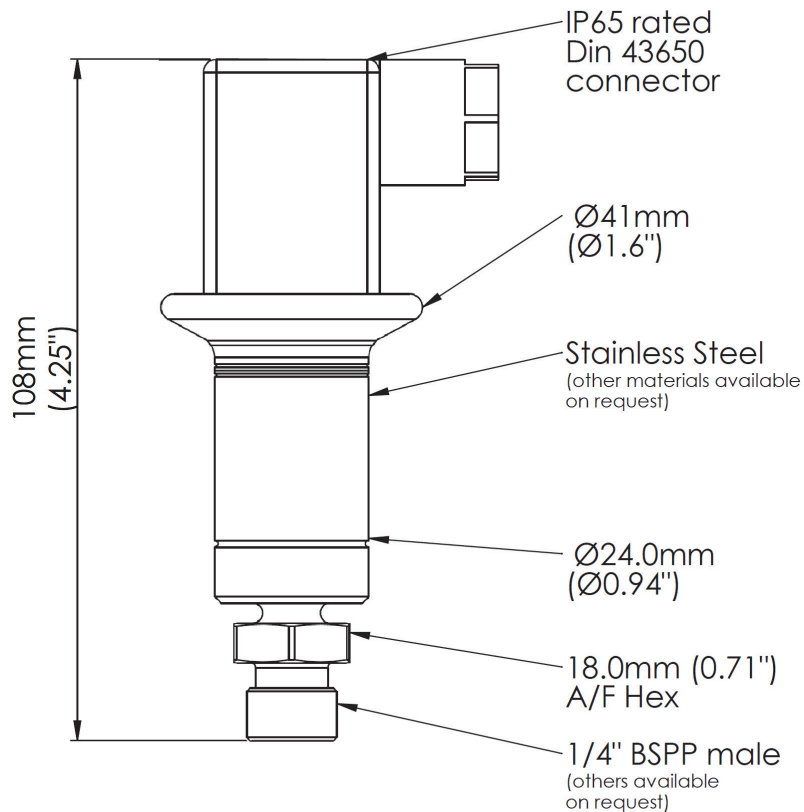
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Part Number	Pressure Rating
IPSAT-G1000-5	0 - 1 Bar G
IPSAT-G6000-5	0 - 6 Bar G
IPSAT-GM1P9-5	-1 to +9 Bar G
IPSAT-G1002-5	0 - 10 Bar G
IPSAT-G1602-5	0 - 16 bar G
IPSAT-C0184-5	-1 to +24 Bar G
IPSAT-G2502-5	0 - 25 Bar G
IPSAT-G4002-5	0 - 40 Bar G
IPSAT-G1003-5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

### Mechanical Dimensions



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