

# IPSUAT 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  $<\pm 0.25\%$  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 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           | -40°C to +80°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               |

### 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 <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      | $> 100 \times 10^6$ 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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Made in the UK

ISO9001 CERTIFIED  
IPSUAT 2017

www.cynergy3.com

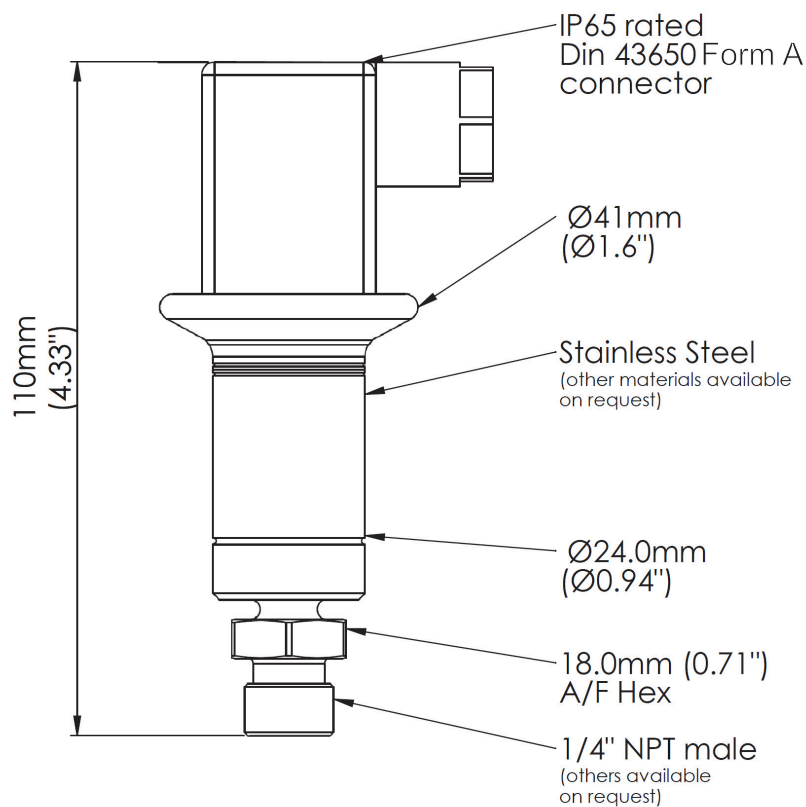
# IPSUAT Series

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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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