

# IPS Series

## Industrial Pressure Transducer - Ceramic



- **Piezo-resistive thick film ceramic sensor**
- **Stainless steel body**
- **Accuracy  $\leq \pm 0.25\%$  FS BFSL**
- **Various outputs including mV, Volts and mA.**
- **Pressure ranges from -1 to 400 bar**

The IPS series is suitable for use in a wide range of industrial applications. 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/no function |
| Electromagnetic compatibility | CE Compliant          |

### Mechanical Stability

|           |                       |
|-----------|-----------------------|
| Shock     | 100g / 11s            |
| Vibration | 10g RMS (20 - 2000Hz) |

### Temperatures & Thermal Effects

|                               |                          |
|-------------------------------|--------------------------|
| Media Temperature             | -40°C to +135°C          |
| Ambient Temperature           | -20°C to +80°C           |
| Storage temperature           | -40°C to +125°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   |

### Performance

|                                       |                                                            |
|---------------------------------------|------------------------------------------------------------|
| Accuracy (Non-Linearity & Hysteresis) | $\leq \pm 0.25\%$ / FS (BFSL)                              |
| Setting Errors (offsets)              | 2-wire Zero & Full Scale, $\leq \pm 0.5\%$ / FS            |
|                                       | 3-wire Zero & Full Scale, $\leq \pm 0.5\%$ / FS            |
|                                       | 4-wire Zero & Full Scale, $\leq \pm 0.5\%$ / FS @ 10 Volts |

### Material Specifications

|                       |                                                |
|-----------------------|------------------------------------------------|
| Housing               | 303 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 and Passive mV/V Outputs

|                          |     |         |         |         |         |          |          |     |     |     |
|--------------------------|-----|---------|---------|---------|---------|----------|----------|-----|-----|-----|
| 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 Signals and Supply Voltages

| Wire system        | Output               | Supply Voltage | Connection | Pin Nos   |
|--------------------|----------------------|----------------|------------|-----------|
| 2-wire             | 4-20mA               | 9-32Vdc        | +ve Supply | Pin 1     |
|                    |                      |                | -ve Supply | Pin 2     |
| 3-wire             | 0-5Vdc               | 9-32Vdc        | +ve Supply | Pin 1     |
|                    |                      |                | +ve Output | Pin 3     |
|                    |                      |                | Ground     | Earth Pin |
| 4-wire (amplified) | 10mV/V (ratiometric) | 3-12Vdc        | +ve Supply | Pin 1     |
|                    |                      |                | -ve Supply | Pin 2     |
|                    |                      |                | +ve Output | Pin 3     |
|                    |                      |                | -ve Output | Earth Pin |

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\*Calibration data is supplied as a sticker affixed to the product packaging - do not discard

ISO9001 CERTIFIED

IPS 2018



Made in the UK

www.cynergy3.com

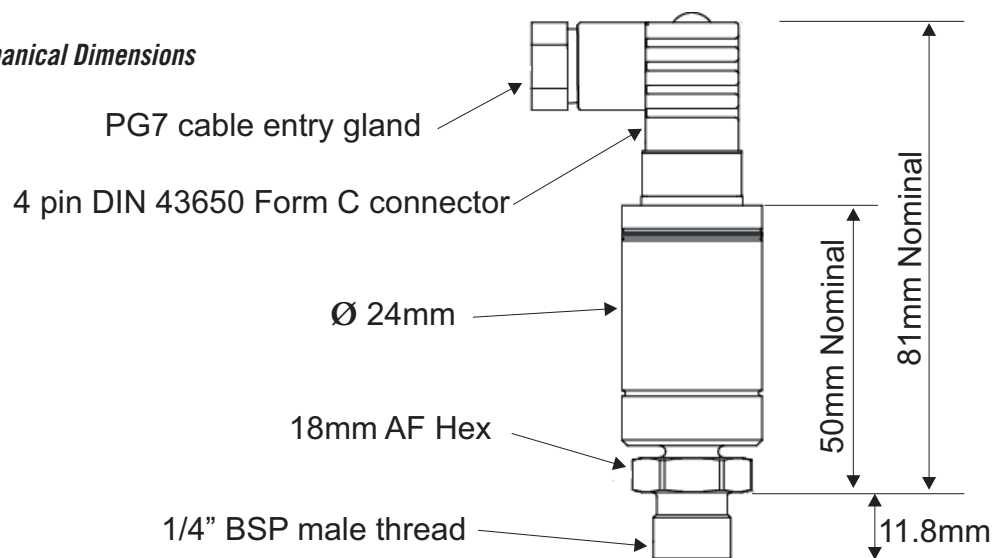


## IPS Series

### Industrial Pressure Sensor - Ceramic

| Part Number | Pressure Rating | Output    |
|-------------|-----------------|-----------|
| IPS-G1000-3 | 0 - 1 Bar G     | 0 - 100mV |
| IPS-G1000-5 | 0 - 1 Bar G     | 4 - 20mA  |
| IPS-G1000-6 | 0 - 1 Bar G     | 0 - 5V    |
| IPS-G6000-3 | 0 - 6 Bar G     | 0 - 100mV |
| IPS-G6000-5 | 0 - 6 Bar G     | 4 - 20mA  |
| IPS-G6000-6 | 0 - 6 Bar G     | 0 - 5V    |
| IPS-GM1P9-5 | -1 to +9 Bar G  | 4 - 20mA  |
| IPS-GM1P9-6 | -1 to +9 Bar G  | 0 - 5V    |
| IPS-G1002-3 | 0 - 10 Bar G    | 0 - 100mV |
| IPS-G1002-5 | 0 - 10 Bar G    | 4 - 20mA  |
| IPS-G1002-6 | 0 - 10 Bar G    | 0 - 5V    |
| IPS-G1602-3 | 0 - 16 Bar G    | 0 - 100mV |
| IPS-G1602-5 | 0 - 16 bar G    | 4-20mA    |
| IPS-G1602-6 | 0 - 16 bar G    | 0-5V      |
| IPS-C0184-5 | -1 to +24 Bar G | 4 - 20mA  |
| IPS-C0184-6 | -1 to +24 Bar G | 0 - 5V    |
| IPS-G2502-3 | 0 - 25 Bar G    | 0 - 100mV |
| IPS-G2502-5 | 0 - 25 Bar G    | 4 - 20mA  |
| IPS-G2502-6 | 0 - 25 Bar G    | 0 - 5V    |
| IPS-G4002-3 | 0 - 40 Bar G    | 0 - 100mV |
| IPS-G4002-5 | 0 - 40 Bar G    | 4 - 20mA  |
| IPS-G4002-6 | 0 - 40 Bar G    | 0 - 5V    |
| IPS-G1003-3 | 0 - 100 Bar G   | 0 - 100mV |
| IPS-G1003-5 | 0 - 100 Bar G   | 4 - 20mA  |
| IPS-G1003-6 | 0 - 100 Bar G   | 0 - 5V    |
| IPS-G2503-3 | 0 - 250 Bar G   | 0 - 100mV |
| IPS-G2503-5 | 0 - 250 Bar G   | 4 - 20mA  |
| IPS-G2503-6 | 0 - 250 Bar G   | 0 - 5V    |
| IPS-G4003-3 | 0 - 400 Bar G   | 0 - 100mV |
| IPS-G4003-5 | 0 - 400 Bar G   | 4 - 20mA  |
| IPS-G4003-6 | 0 - 400 Bar G   | 0 - 5V    |

#### Mechanical Dimensions



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