



ENGLISH

Datasheet

Stock Nos: 1755034, 1755035, 1755036, 1755037, 1755030, 1755031, 1755038, 1755039, 1755040, 1755041, 1755032, 1755033, 1755042, 1755043, 1755046, 1755047, 1755052, 1755053, 1755044, 1755045, 1755048, 1755049, 1755050, 1755051

IPSU-M12 Series Industrial Pressure Sensor



- Piezo-resistive thick film ceramic sensor
- Stainless steel body
- Accuracy $<\pm 0.25\%$ FS BFSL
- 0-5V or 4-20mA outputs
- Pressure ranges from -14.5 to 5800 psi
- M12 4-pin connector

The IPSU-M12 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 for industrial applications..

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

Mating cable and plug assemblies are available.

Electrical Protection

| | |
|-------------------------------|-----------------------|
| Supply reverse polarity | No damage/no function |
| Electromagnetic compatibility | CE Compliant |

Performance

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

Mechanical Stability

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

Material Specifications

| | |
|--------------------------|--|
| Housing | 316L Stainless Steel |
| "O" ring seals | Viton |
| Diaphragm | Ceramic Al ₂ O ₃ 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 |
| Environmental protection | IP67 (only when used with a similarly rated connector) |

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) | $<\pm 0.04\%$ /FS/°C |
| Thermal Span Shift | $<\pm 0.015\%$ /°C |

Pressure Ranges and Passive mV/V Outputs

| | | | | | | | | | | |
|--------------------------|-----|-----------|------------|-----------|-------------|------------|------------|------|------|------|
| Nominal Pressure, Gauge, | psi | 15 | 30 | 75 | 150 | 300 | 750 | 1500 | 3750 | 6000 |
| Compound range | psi | -7.5 to 0 | -7.5 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 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 | Ground Earth Pin |
| 3-wire | 0-5Vdc | 9-32Vdc | +ve Supply Pin 1 | -ve Supply Pin 2 | |
| | | | +ve Output Pin 3 | Ground | Earth Pin 4 |



Made in the UK

IPSU -M12 RS Pro 2018

Specifications are subject to change without prior notice.

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

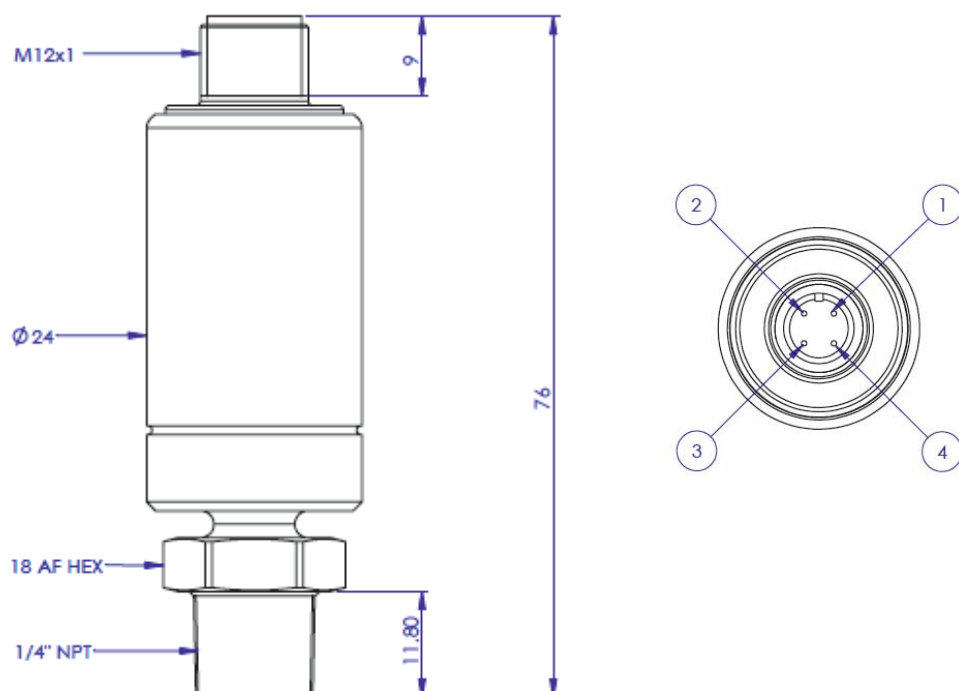


IPSU-M12 Series Industrial Pressure Sensor

| RS Stock No. | Range | Output |
|--------------|---------------------|--------|
| 1755034 | 0-15 psi G | 4-20mA |
| 1755035 | 0-15 psi G | 0-5V |
| 1755036 | 0-30 psi G | 4-20mA |
| 1755037 | 0-30 psi G | 0-5V |
| 1755030 | -14.5 to +150 psi G | 4-20mA |
| 1755031 | -14.5 to +150 psi G | 0-5V |
| 1755038 | 0-75 psi G | 4-20mA |
| 1755039 | 0-75 psi G | 0-5V |
| 1755040 | 0-100 psi G | 4-20mA |
| 1755041 | 0-100 psi G | 0-5V |
| 1755032 | -14.5 to +350 psi G | 4-20mA |
| 1755033 | -14.5 to +350 psi G | 0-5V |
| 1755042 | 0-150 psi G | 4-20mA |
| 1755043 | 0-150 psi G | 0-5V |
| 1755046 | 0-300 psi G | 4-20mA |
| 1755047 | 0-300 psi G | 0-5V |
| 1755052 | 0-750 psi G | 4-20mA |
| 1755053 | 0-750 psi G | 0-5V |
| 1755044 | 0-1500 psi SG* | 4-20mA |
| 1755045 | 0-1500 psi SG* | 0-5V |
| 1755048 | 0-3600 psi SG* | 4-20mA |
| 1755049 | 0-3600 psi SG* | 0-5V |
| 1755050 | 0-5800 psi SG* | 4-20mA |
| 1755051 | 0-5800 psi SG* | 0-5V |

* sealed gauge

Mechanical Dimensions



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