

# IPSU-M12 Series

## Industrial Pressure Sensor - Ceramic - with M12 4-Pin Connector



- Piezo-resistive thick film ceramic sensor
- Stainless steel body
- Accuracy  $\leq \pm 0.25\%$  FS BFSL
- 0-5V or 4-20mA output
- Pressure ranges from -14.5 to 5800 psi
- M12 4-pin connector
- 1/4" NPT process connection

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 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 - see datasheet M12 Cable Set Series

### Electrical Protection

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

### 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

### Mechanical Stability

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

### Material Specifications

Housing	316L 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
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)	$\leq \pm 0.04\%$ /FS/°C
Thermal Span Shift	$\leq \pm 0.015\%$ /°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	Earth Pin 4
			Output Pin 3		

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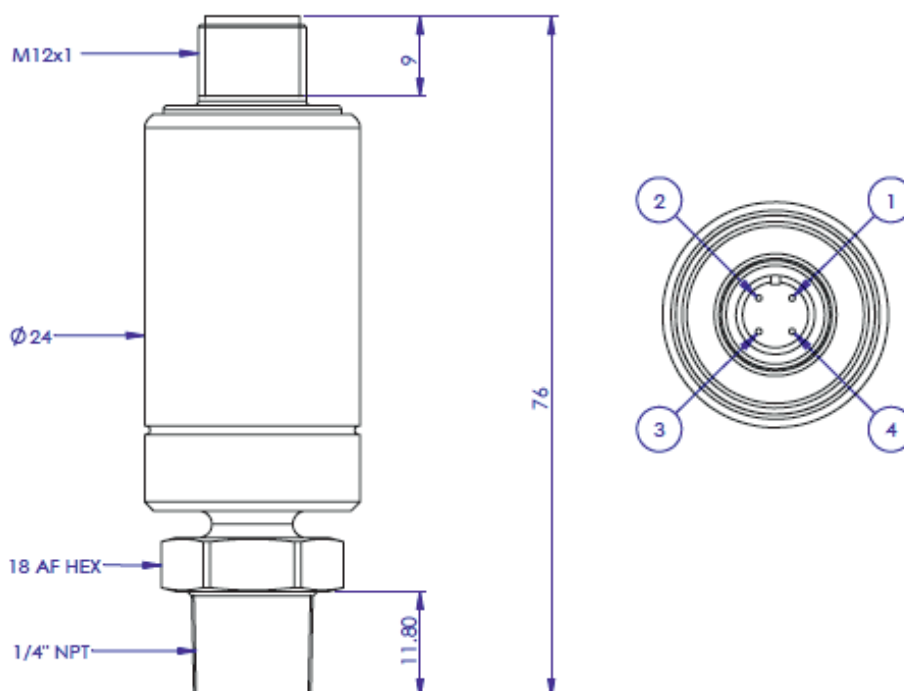
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Part Number	Range	Output
IPSU-GP015-5M12	0-15 psi G	4-20mA
IPSU-GP015-6M12	0-15 psi G	0-5V
IPSU-GP030-5M12	0-30 psi G	4-20mA
IPSU-GP030-6M12	0-30 psi G	0-5V
IPSU-C0446-5M12	-14.5 to +150 psi G	4-20mA
IPSU-C0446-6M12	-14.5 to +150 psi G	0-5V
IPSU-GP075-5M12	0-75 psi G	4-20mA
IPSU-GP075-6M12	0-75 psi G	0-5V
IPSU-GP100-5M12	0-100 psi G	4-20mA
IPSU-GP100-6M12	0-100 psi G	0-5V
IPSU-C0447-5M12	-14.5 to +350 psi G	4-20mA
IPSU-C0447-6M12	-14.5 to +350 psi G	0-5V
IPSU-GP150-5M12	0-150 psi G	4-20mA
IPSU-GP150-6M12	0-150 psi G	0-5V
IPSU-GP300-5M12	0-300 psi G	4-20mA
IPSU-GP300-6M12	0-300 psi G	0-5V
IPSU-GP750-5M12	0-750 psi G	4-20mA
IPSU-GP750-6M12	0-750 psi G	0-5V
IPSU-GP1K5-5M12	0-1500 psi SG*	4-20mA
IPSU-GP1K5-6M12	0-1500 psi SG*	0-5V
IPSU-GP3K6-5M12	0-3600 psi SG*	4-20mA
IPSU-GP3K6-6M12	0-3600 psi SG*	0-5V
IPSU-GP5K8-5M12	0-5800 psi SG*	4-20mA
IPSU-GP5K8-6M12	0-5800 psi SG*	0-5V

\* sealed gauge

### Mechanical Dimensions



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