

## IPSU-M12 SERIES

### INDUSTRIAL PRESSURE SENSOR - CERAMIC - WITH 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 industrial applications.

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

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

#### Features

- 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

## SPECIFICATIONS

### Performance

<b>Accuracy (Non-linearity &amp; Hysteresis)</b>	$\leq \pm 0.25\%$ / FS (BFSL)	
<b>Setting Errors (Offsets)</b>	2-wire	Zero & Full Scale, $\leq \pm 0.5\%$ / FS
	3-wire	Zero & Full Scale, $\leq \pm 0.5\%$ / FS

### Material

<b>Housing</b>	316L Stainless Steel
<b>"O" Ring Seals</b>	Viton
<b>Diaphragm</b>	Ceramic $Al_2O_3$ 96%
<b>Media Wetted Parts</b>	Housing & connection, 'O' ring seal, diaphragm
<b>Weight</b>	Approx 100g
<b>Installation Position</b>	Any
<b>Operation Life</b>	$> 100 \times 10^6$ cycles
<b>Insulation Resistance</b>	$> 50M\Omega$ at 50Vdc
<b>Environmental Protection</b>	IP67 (only when used with a similarly rated connector)

## Electrical Protection

<b>Supply Reverse Polarity</b>	No damage / no function
<b>Electromagnetic Compatibility</b>	CE EMC directive - EN 61326-1:2013

## Environmental Conditions

<b>Shock</b>	100g / 11s
<b>Vibration</b>	10g RMS (20 - 2000Hz)
<b>Media Temperature</b>	-40°C to +135°C
<b>Ambient Temperature</b>	-20°C to +80°C
<b>Storage Temperature</b>	-40°C to +125°C
<b>Humidity</b>	5% to 95% RH non-condensing

## Temperature & Thermal Effects

<b>Compensated Temperature Range</b>	+20°C to +80°C
<b>Thermal Zero Shift (TZS)</b>	<±0.04% /FS/°C
<b>Thermal Span Shift</b>	<-0.015% /°C

## PRESSURE RANGES

### Pressure Ranges & Passive mV/V Outputs

<b>Nominal Pressure, Gauge</b>	psi	15	30	75	100	150	300	750	1500	3600	5800
<b>Compound Range</b>	psi					-14.5 to +150	-14.5 to +350				
<b>Permissible Overpressure</b>	psi	30	60	150	225	225	500	1500	2000	5000	7000
<b>Burst Pressure</b>	psi	45	75	180	300	300	700	1800	3000	7000	9500

## Output Signal & Supply Voltage

<b>Wire System</b>	<b>Output</b>	<b>Supply Voltage</b>	<b>Connection Pin Nos</b>		
2-wire	4 - 20mA	9 – 32V dc	+ve Supply Pin 1	-ve Supply Pin 2	Ground Earth Pin 3
3-wire	0 - 5Vdc	9 – 32V dc	+ve Supply Pin 1	-ve Supply Pin 2	
			Output Pin 3	Earth Pin 4	

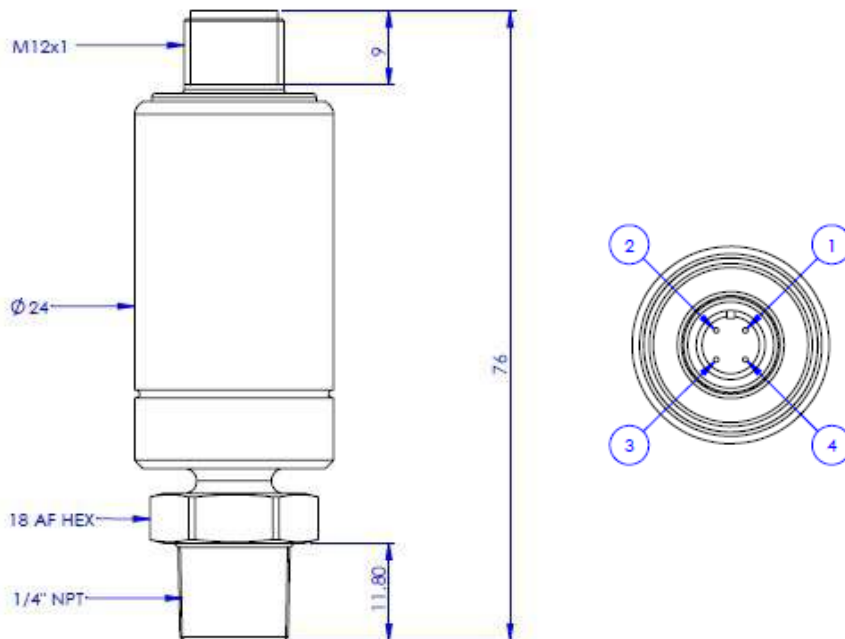
<b>Part Number</b>	<b>Range</b>	<b>Output</b>
IPSU-GP015-5M12	0-15 psi G	4-20mA
IPSU-GP015-6M12	0-15 psi G	0-5V
IPSU-GP030-5M12	0-30 psi G	4-20mA
IPSU-GP030-6M12	0-30 psi G	0-5V
IPSU-C0446-5M12	-14.5 to +150 psi G	4-20mA
IPSU-C0446-6M12	-14.5 to +150 psi G	0-5V
IPSU-GP075-5M12	0-75 psi G	4-20mA
IPSU-GP100-5M12	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

Part Number	Range	Output
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-GP750-6M12	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 only

## DIMENSIONS

All dimensions are in millimeters.



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