

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

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

Material

Housing	316L Stainless Steel
"O" Ring Seals	Viton
Diaphragm	Ceramic Al_2O_3 96%
Media Wetted Parts	Housing & connection, 'O' ring seal, diaphragm
Weight	Approx 100g
Installation Position	Any
Operation 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)

Electrical Protection

Supply Reverse Polarity	No damage / no function
Electromagnetic Compatibility	UKCA, CE EMC directive · BS EN 61326-1:2013

Environmental Conditions

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

Temperature & Thermal Effects

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

PRESSURE RANGES

Pressure Ranges & Passive mV/V Outputs

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

Output Signal & Supply Voltage

Wire System	Output	Supply Voltage	Connection Pin Nos		
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	

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-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

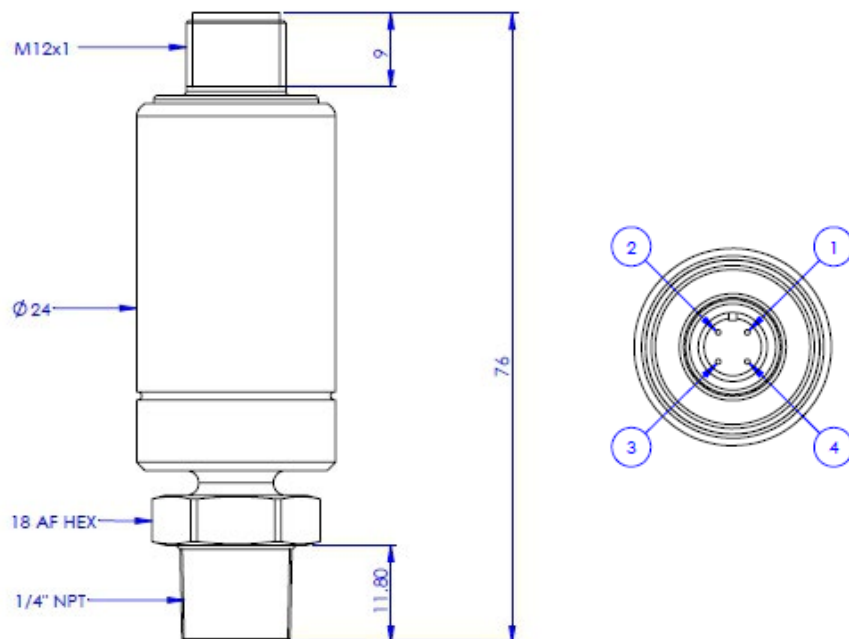
Part Number	Range	Output
IPSU-C0447-6M12	-14.5 to +350 psi G	0-5V
IPSU-GP150-5M12	0-150 psi G	4-20mA
IPSU-GP150-6M12	0-150 psi G	0-5V
IPSU-GP300-5M12	0-300 psi G	4-20mA
IPSU-GP300-6M12	0-300 psi G	0-5V
IPSU-GP750-6M12	0-750 psi G	0-5V
IPSU-GP1K5-5M12	0-1500 psi SG*	4-20mA
IPSU-GP1K5-6M12	0-1500 psi SG*	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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