

IPSU 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 vacuum to +5800psi**
(Custom ranges available on request)

The IPSU 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*

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
	4-wire Zero & Full Scale, $\leq \pm 0.5\%$ / FS @ 10 Volts

Mechanical Stability

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

Material Specifications

Housing	303 Stainless Steel
"O" ring seals	Viton
Diaphragm	Ceramic Al_2O_3 96%
Media wetted parts	Housing & connection, "O" ring seal, diaphragm
Weight	Approx 3.5oz (100g)
Installation position	Any
Operational Life	> 100x 10 ⁶ cycles
Insulation resistance	> 50MΩ at 50Vdc

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	-15 to 0	-15 to 30	-15 to 75	-15 to 125	-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-wire (amplified)	10mV/V (ratiometric)	3-12Vdc	+ve Supply Pin 1	-ve Supply Pin 2	
			+ve Output Pin 3	-ve Output	Earth Pin

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

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Part Number	Range	Output
IPSU-GP015-3	0-15 psi G	0-100mV
IPSU-GP015-5	0-15 psi G	4-20mA
IPSU-GP015-6	0-15 psi G	0-5V
IPSU-GP030-3	0-30 psi G	0-100mV
IPSU-GP030-5	0-30 psi G	4-20mA
IPSU-GP030-6	0-30 psi G	0-5V
IPSU-C0446-5	-14.5 to +150 psi G	4 - 20mA
IPSU-C0446-6	-14.5 to +150 psi G	0-5V
IPSU-GP075-3	0-75 psi G	0-100mV
IPSU-GP075-5	0-75 psi G	4-20mA
IPSU-GP075-6	0-75 psi G	0-5V
IPSU-GP100-3	0-100 psi G	0-100mV
IPSU-GP100-5	0-100 psi G	4-20mA
IPSU-GP100-6	0-100 psi G	0-5V
IPSU-C0447-5	-14.5 to +350 psi G	4-20mA
IPSU-C0447-6	-14.5 to +350 psi G	0-5V
IPSU-GP150-3	0-150 psi G	0-100mV
IPSU-GP150-5	0-150 psi G	4-20mA
IPSU-GP150-6	0-150 psi G	0-5V
IPSU-GP300-3	0-300 psi G	0-100mV
IPSU-GP300-5	0-300 psi G	4-20mA
IPSU-GP300-6	0-300 psi G	0-5V
IPSU-GP750-3	0-750 psi G	0-100mV
IPSU-GP750-5	0-750 psi G	4-20mA
IPSU-GP750-6	0-750 psi G	0-5V
IPSU-GP1K5-3	0-1500 psi G	0-100mV
IPSU-GP1K5-5	0-1500 psi G	4-20mA
IPSU-GP1K5-6	0-1500 psi G	0-5V
IPSU-GP3K6-3	0-3600 psi G	0-100mV
IPSU-GP3K6-5	0-3600 psi G	4-20mA
IPSU-GP3K6-6	0-3600 psi G	0-5V
IPSU-GP5K8-3	0-5800 psi G	0-100mV
IPSU-GP5K8-5	0-5800 psi G	4-20mA
IPSU-GP5K8-6	0-5800 psi G	0-5V

Part Number	Range	Output
IPSU-G1000-3	0-1bar G (0-14.5psi)	0-100mV
IPSU-G1000-5	0-1bar G (0-14.5psi)	4-20mA
IPSU-G1000-6	0-1bar G (0-14.5psi)	0-5V
IPSU-G6000-3	0-6bar G (0-87psi)	0-100mV
IPSU-G6000-5	0-6bar G (0-87psi)	4-20mA
IPSU-G6000-6	0-6bar G (0-87psi)	0-5V
IPSU-GM1P9-5	-1 to +9 Bar G	4 - 20mA
IPSU-GM1P9-6	-1 to +9 Bar G	0-5V
IPSU-G1002-3	0-10bar G (0-145psi)	0-100mV
IPSU-G1002-5	0-10bar G (0-145psi)	4-20mA
IPSU-G1002-6	0-10bar G (0-145psi)	0-5V
IPSU-G1602-3	0-16bar G (0-232psi)	0-100mV
IPSU-G1602-5	0-16bar G (0-232psi)	4-20mA
IPSU-G1602-6	0-16bar G (0-232psi)	0-5V
IPSU-C0184-5	-1 to +24bar G	4-20mA
IPSU-C0184-6	-1 to +24bar G	0-5V
IPSU-G2502-3	0-25bar G (0-363psi)	0-100mV
IPSU-G2502-5	0-25bar G (0-363psi)	4-20mA
IPSU-G2502-6	0-25bar G (0-363psi)	0-5V
IPSU-G4002-3	0-40bar G (0-580psi)	0-100mV
IPSU-G4002-5	0-40bar G (0-580psi)	4-20mA
IPSU-G4002-6	0-40bar G (0-580psi)	0-5V
IPSU-G1003-3	0-100bar G (0-1405psi)	0-100mV
IPSU-G1003-5	0-100bar G (0-1405psi)	4-20mA
IPSU-G1003-6	0-100bar G (0-1405psi)	0-5V
IPSU-G2503-3	0-250bar G (0-3626psi)	0-100mV
IPSU-G2503-5	0-250bar G (0-3626psi)	4-20mA
IPSU-G2503-6	0-250bar G (0-3626psi)	0-5V
IPSU-G4003-3	0-400bar G (0-5802psi)	0-100mV
IPSU-G4003-5	0-400bar G (0-5802psi)	4-20mA
IPSU-G4003-6	0-400bar G (0-5802psi)	0-5V

(Custom ranges and outputs available on request)

Mechanical Dimensions

