

IPS Series

Industrial Pressure Transducer - Ceramic



- **Piezo-resistive thick film ceramic sensor**
- **Stainless steel body**
- **Accuracy $<\pm 0.25\%$ FS BFSL**
- **Various outputs including mV, Volts and mA.**
- **Pressure ranges from -1 to 400 bar**

The IPS 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.*

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

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

Material Specifications

Housing	303 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	> 100x 10 ⁶ cycles
Insulation resistance	> 50MΩ at 50Vdc

Thermal Effects

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,	bar	1	2	5	10	20	50	100	250	400
Compound range	bar	-1 to 0	-1 to 2	-1 to 5	-1 to 9	-1 to 19	-1 to 24			
Permissible Overpressure	bar	2	4	10	20	40	100	200	400	650
Burst Pressure	bar	4	5	12	25	50	120	250	500	650

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	Pressure Rating	Output
IPS-G1000-3	0 - 1 Bar G	0 - 100mV
IPS-G1000-5	0 - 1 Bar G	4 - 20mA
IPS-G1000-6	0 - 1 Bar G	0 - 5V
IPS-G6000-3	0 - 6 Bar G	0 - 100mV
IPS-G6000-5	0 - 6 Bar G	4 - 20mA
IPS-G6000-6	0 - 6 Bar G	0 - 5V
IPS-GM1P9-5	-1 to +9 Bar G	4 - 20mA
IPS-GM1P9-6	-1 to +9 Bar G	0 - 5V
IPS-G1002-3	0 - 10 Bar G	0 - 100mV
IPS-G1002-5	0 - 10 Bar G	4 - 20mA
IPS-G1002-6	0 - 10 Bar G	0 - 5V
IPS-G1602-3	0 - 16 Bar G	0 - 100mV
IPS-G1602-5	0 - 16 bar G	4-20mA
IPS-G1602-6	0 - 16 bar G	0-5V
IPS-C0184-5	-1 to +24 Bar G	4 - 20mA
IPS-C0184-6	-1 to +24 Bar G	0 - 5V
IPS-G2502-3	0 - 25 Bar G	0 - 100mV
IPS-G2502-5	0 - 25 Bar G	4 - 20mA
IPS-G2502-6	0 - 25 Bar G	0 - 5V
IPS-G4002-3	0 - 40 Bar G	0 - 100mV
IPS-G4002-5	0 - 40 Bar G	4 - 20mA
IPS-G4002-6	0 - 40 Bar G	0 - 5V
IPS-G1003-3	0 - 100 Bar G	0 - 100mV
IPS-G1003-5	0 - 100 Bar G	4 - 20mA
IPS-G1003-6	0 - 100 Bar G	0 - 5V
IPS-G2503-3	0 - 250 Bar G	0 - 100mV
IPS-G2503-5	0 - 250 Bar G	4 - 20mA
IPS-G2503-6	0 - 250 Bar G	0 - 5V
IPS-G4003-3	0 - 400 Bar G	0 - 100mV
IPS-G4003-5	0 - 400 Bar G	4 - 20mA
IPS-G4003-6	0 - 400 Bar G	0 - 5V

