

IPS SERIES

INDUSTRIAL PRESSURE TRANSDUCER - CERAMIC



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.*

*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
- Various outputs including mV, Volts and mA
- Pressure ranges from -1 to 400 bar
- 1/4" BSP Pressure port 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	303 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

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	bar	1	6	10	16	25	40	100	250	400
Compound Range	bar			-1 to +9		-1 to +24				
Permissible Overpressure	bar	2	10	15	35	100	100	150	350	500
Burst Pressure	bar	3	12	20	50	120	120	200	500	650

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-wire	0 - 5V dc	9 – 32V dc	+ve Supply Pin 1	-ve Supply Pin 2	
			+ve Output Pin 3	Ground Earth Pin	

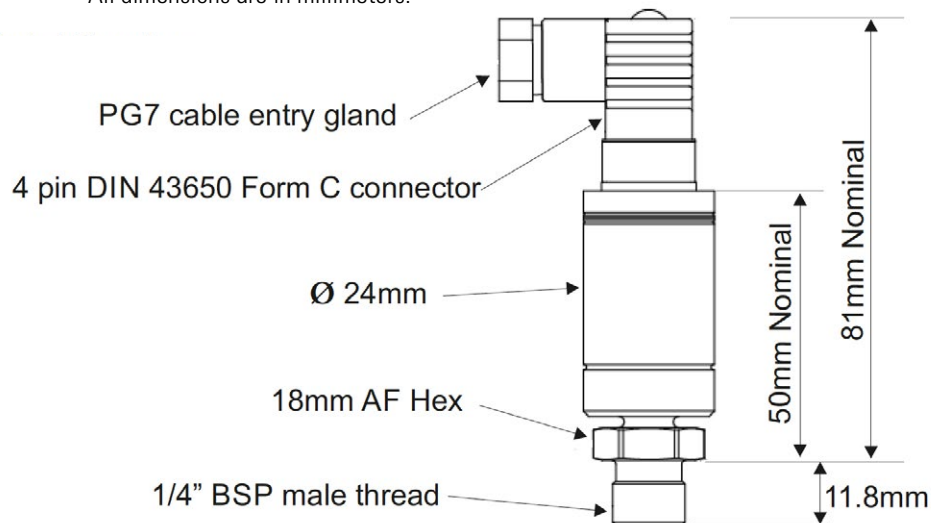
Part Number	Pressure Rating	Output
IPS-G1000-5	0 - 1 Bar G	4 - 20mA
IPS-G1000-6	0 - 1 Bar G	0 - 5V
IPS-G6000-5	0 - 6 Bar G	4 - 20mA
IPS-G6000-6	0 - 6 Bar G	0 - 5V
IPS-GM1P9-5	-1 to +9 Bar G	4 - 20mA
IPS-GM1P9-6	-1 to +9 Bar G	0 - 5V
IPS-G1002-5	0 - 10 Bar G	4 - 20mA
IPS-G1002-6	0 - 10 Bar G	0 - 5V
IPS-G1602-5	0 - 16 bar G	4-20mA
IPS-G1602-6	0 - 16 bar G	0-5V

Part Number	Pressure Rating	Output
IPS-C0184-5	-1 to +24 Bar G	4 - 20mA
IPS-C0184-6	-1 to +24 Bar G	0 - 5V
IPS-G2502-5	0 - 25 Bar G	4 - 20mA
IPS-G2502-6	0 - 25 Bar G	0 - 5V
IPS-G4002-5	0 - 40 Bar G	4 - 20mA
IPS-G4002-6	0 - 40 Bar G	0 - 5V
IPS-G1003-5	0 - 100 Bar G	4 - 20mA
IPS-G1003-6	0 - 100 Bar G	0 - 5V
IPS-G2503-5	0 - 250 Bar G	4 - 20mA
IPS-G2503-6	0 - 250 Bar G	0 - 5V
IPS-G4003-5	0 - 400 Bar G	4 - 20mA
IPS-G4003-6	0 - 400 Bar G	0 - 5V



DIMENSIONS

All dimensions are in millimeters.



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