

## IPS-M12 SERIES

### INDUSTRIAL PRESSURE SENSOR - CERAMIC - WITH M12 4-PIN CONNECTOR



The IPS-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.\*

Mating cable and plug assemblies are available - see data sheet M12 Cable Set Series.

\*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  $<\pm 0.25\%$  FS BFSL
- 0-5V or 4-20mA output
- Pressure ranges from -1 to 400 bar
- M12 4-pin connector

## SPECIFICATIONS

### Performance

<b>Accuracy (Non-linearity &amp; Hysteresis)</b>	$<\pm 0.25\%$ / FS (BFSL)	
<b>Setting Errors (Offsets)</b>	2-wire	Zero & Full Scale, $<\pm 0.5\%$ / FS
	3-wire	Zero & Full Scale, $<\pm 0.5\%$ / 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>	$> 50$ MOhms at 50Vdc
<b>Environmental Protection</b>	IP67 (when used with a similarly rated connector)

## Electrical Protection

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

## Environmental Conditions

<b>Shock</b>	100g / 11ms
<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 (TSS)</b>	<-0.015% /°C

## PRESSURE RANGES

### Pressure Ranges & Passive mV/V Outputs

<b>Nominal Pressure, Gauge</b>	bar	1	2	5	10	20	50	100	250	400
<b>Compound Range</b>	bar	-0.5 to 0	-0.5 to 2	-1 to 5	-1 to 9	-1 to 19	-1 to 24			
<b>Permissible Overpressure</b>	bar	2	4	10	15	35	100	150	350	500
<b>Burst Pressure</b>	bar	3	6	12	20	50	120	200	500	650

## 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-wire	0 - 5V dc	9 – 32V dc	+ve Supply Pin 1	-ve Supply Pin 2	
			Output Pin 3	Earth Pin 4	

<b>Part No</b>	<b>Pressure Range</b>	<b>Output</b>
IPS-G1000-5M12	0 - 1 Bar G	4 - 20mA
IPS-G1000-6M12	0 - 1 Bar G	0 - 5V
IPS-G6000-5M12	0 - 6 Bar G	4 - 20mA
IPS-G6000-6M12	0 - 6 Bar G	0 - 5V
IPS-GM1P9-5M12	-1 to +9 Bar G	4 - 20mA
IPS-GM1P9-6M12	-1 to +9 Bar G	0 - 5V
IPS-G1002-5M12	0 - 10 Bar G	4 - 20mA
IPS-G1002-6M12	0 - 10 Bar G	0 - 5V
IPS-G1602-5M12	0 - 16 bar G	4-20mA
IPS-G1602-6M12	0 - 16 bar G	0-5V

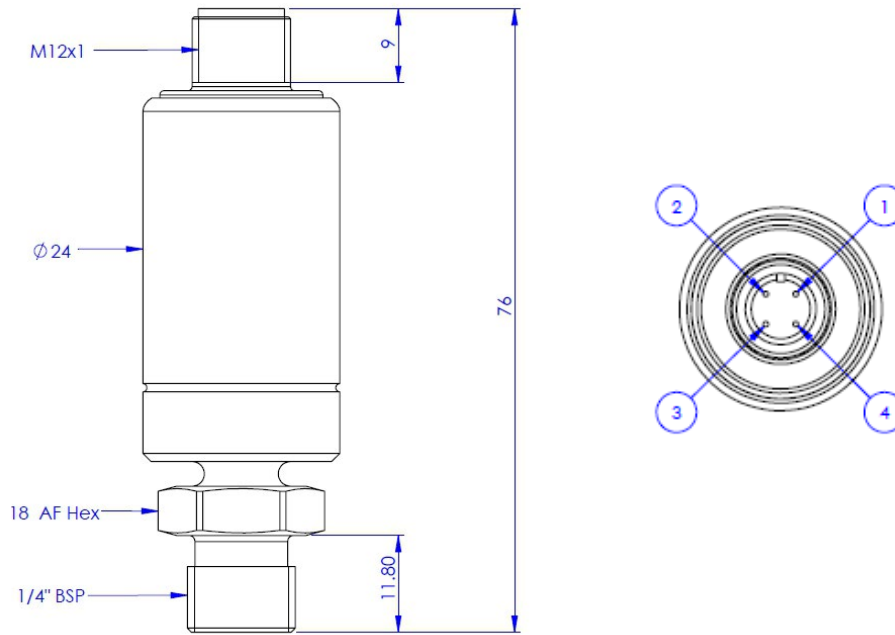
Part No	Pressure Range	Output
IPS-C0184-5M12	-1 to +24 Bar G	4 - 20mA
IPS-C0184-6M12	-1 to +24 Bar G	0 - 5V
IPS-G2502-5M12	0 - 25 Bar G	4 - 20mA
IPS-G2502-6M12	0 - 25 Bar G	0 - 5V
IPS-G4002-5M12	0 - 40 Bar G	4 - 20mA
IPS-G4002-6M12	0 - 40 Bar G	0 - 5V
IPS-G1003-5M12	0 - 100 Bar SG*	4 - 20mA
IPS-G1003-6M12	0 - 100 Bar SG*	0 - 5V
IPS-G2503-5M12	0 - 250 Bar SG*	4 - 20mA
IPS-G2503-6M12	0 - 250 Bar SG*	0 - 5V
IPS-G4003-5M12	0 - 400 Bar SG*	4 - 20mA
IPS-G4003-6M12	0 - 400 Bar SG*	0 - 5V

\*sealed gauge only



## DIMENSIONS

All dimensions are in millimeters.



Made in the UK

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