

IPS-M12 Series

Industrial Pressure Sensor - Ceramic - with M12 4-Pin Connector



- 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 -1 to 400 bar
- 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 datasheet M12 Cable Set Series

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

Mechanical Stability

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

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

Material Specifications

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
Operational Life	> 100x 10 ⁶ cycles
Insulation resistance	> 50MΩ at 50Vdc
Environmental protection	IP67 (when used with a similarly rated connector)

Pressure Ranges and Passive mV/V Outputs

Nominal Pressure, Gauge, bar	1	2	5	10	20	50	100	250	400
Compound range bar	-0.5 to 0	-0.5 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 Output Pin 3 Earth Pin 4

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

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ISO9001 CERTIFIED

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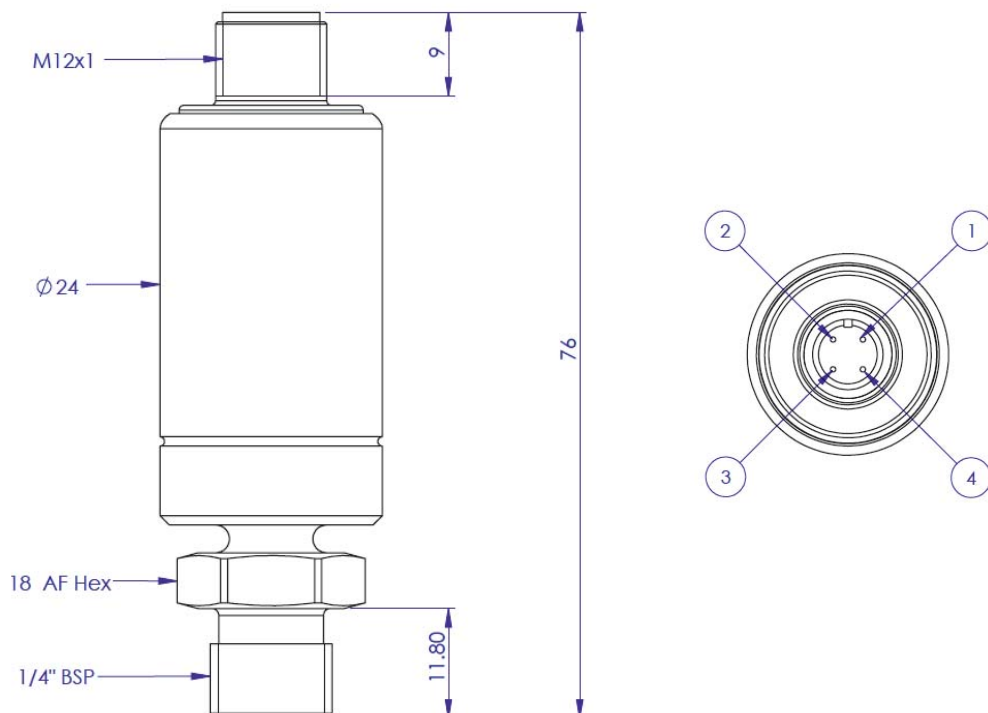
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Part Number	Pressure Rating	Output
IPS-G1000-5M12	0 - 1 Bar G	4 - 20mA
IPS-G1000-6M12	0 - 1 Bar G	0 - 5V
IPS-G6000-5M12	0 - 6 Bar G	4 - 20mA
IPS-G6000-6M12	0 - 6 Bar G	0 - 5V
IPS-GM1P9-5M12	-1 to +9 Bar G	4 - 20mA
IPS-GM1P9-6M12	-1 to +9 Bar G	0 - 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
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

Mechanical Dimensions



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