

# 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)

### Material Specifications

Housing	316L Stainless Steel
"O" ring seals	Viton
Diaphragm	Ceramic Al <sub>2</sub> O <sub>3</sub> 96%
Media wetted parts	Housing & connection, "O" ring seal, diaphragm
Weight	Approx 100g
Installation position	Any
Operational Life	> 100x 10 <sup>6</sup> cycles
Insulation resistance	> 50MΩ at 50Vdc
Environmental protection	IP67 (when used with a similarly rated connector)

### 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, 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	Earth Pin 4

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

Cynergy3 Components Ltd.  
7 Cobham Road  
Ferndown Industrial Estate  
Wimborne, Dorset BH21 7PE  
Telephone +44 (0) 1202 897969

Email:sales@cynergy3.com



ISO9001 CERTIFIED

IPS-M12 2018

www.cynergy3.com

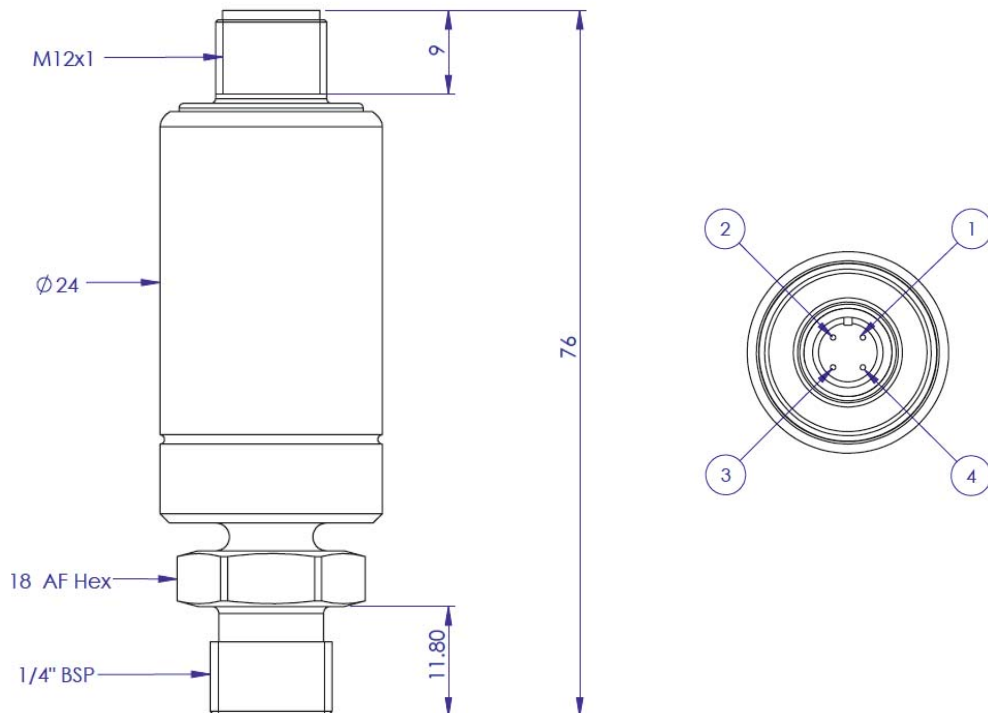
# IPS-M12 Series

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

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



Cynergy3 Components Ltd.  
 7 Cobham Road  
 Ferndown Industrial Estate  
 Wimborne, Dorset BH21 7PE  
 Telephone +44 (0) 1202 897969

Email: [sales@cynergy3.com](mailto:sales@cynergy3.com)

**ISO9001 CERTIFIED**

© 2018 Cynergy3 Components, All Rights Reserved. Specifications are subject to change without prior notice. Cynergy3 Components and the Cynergy3 Components logo are trademarks of Cynergy3 Components Limited.

[www.cynergy3.com](http://www.cynergy3.com)