

## IPSS SERIES

### SEMI-FLUSH MOUNT PRESSURE TRANSMITTER

The semi-flush mount pressure transmitter, IPSS, has a piezo-resistive silicon or ceramic pressure sensor. The sensor is semi-flush to the housing making this product ideal for viscous or paste like media. The sensor and housing are made from stainless steel with a choice of internal 'O' ring seals to ensure the product is suitable for a wide range of applications.

The electronics incorporate a microprocessor-based amplifier, requiring no adjusting and giving stable electronics - especially in high vibration or shock applications.

Every 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 sensor, Ceramic
- Accuracy  $\leq \pm 0.25\%$  FS BFSL
- mA output available
- Pressure ranges from -1 Bar to +19Bars
- Pressure reference, Gauge or Absolute
- 3/4" BSP Pressure port connection

#### Suitable Applications

- Environmental engineering
- Static tank level
- Viscous and paste-like media
- Composite manufacturing
- Process control
- Automotive testing
- Process pumping
- Sewage or grey water
- Injection moulding or infusion
- Aggressive media



CE

## SPECIFICATIONS

### Performance

<b>Accuracy (Non-linearity &amp; Hysteresis)</b>	$\leq \pm 0.25\%$ / FS (BFSL)	
<b>Setting Errors (Offsets)</b>	2-wire	Zero & Full Scale, $\leq \pm 0.5\%$ / FS
<b>Permissible Load</b>	2-wire	$R_{max} = [(VS - VS_{min}) / 0.02] \Omega$
<b>Influence Effects</b>	Supply	$< 0.005\%$ FS / 1V
	Load	0.05% FSO / k $\Omega$

## Material

<b>Housing</b>	303 Stainless Steel
<b>"O" Ring Seals</b>	Viton
<b>Diaphragm</b>	316L Stainless Steel or Ceramic
<b>Media Wetted Parts</b>	Housing & process connection, 'O' ring seal, diaphragm

## Miscellaneous

<b>Current Consumption</b>	2-wire Limits at 28mA
<b>Weight</b>	Approx 100g
<b>Installation Position</b>	Any, small zero shift when tilted through 90° for silicon
<b>Operation Life</b>	> 100 x 10 <sup>6</sup> cycles
<b>Insulation Resistance</b>	> 50MOhms at 50Vdc

## Electrical Protection

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

## Environmental Conditions

<b>Shock</b>	100g / 11s
<b>Vibration</b>	10g RMS (20 - 2000Hz)
<b>Media Temperature</b>	-40°C to +125°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</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

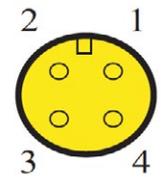
### Input Pressure Ranges

<b>Nominal Pressure, Gauge</b>	Bar	2	5	
<b>Nominal Pressure Absolute</b>	Bar	2		
<b>Nominal Pressure Compound</b>	Bar		-1 to +5	-1 to +19
<b>Permissible Overpressure</b>	Bar	4	10	35

## Output Signal & Supply Voltage

## Wiring Designation

Wire System	Output	Supply Volts	Connection	Pin No. (M12 4-pin connector)
2-wire	4 - 20mA	9 – 32V dc	+ve Supply	Pin 1
			-ve Supply	Pin 2
			Ground	Pin 3

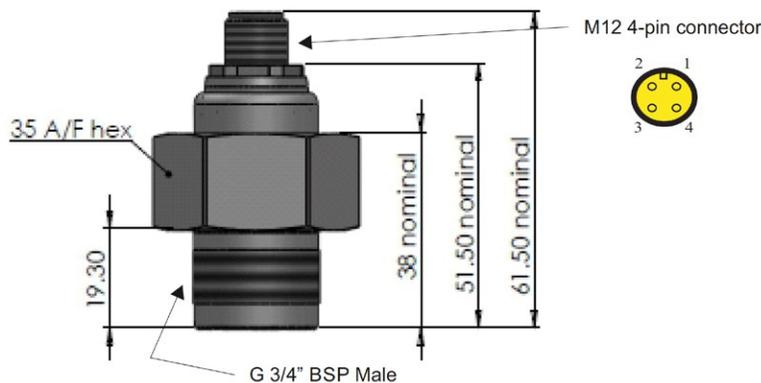


Part No	Sensor type	Pressure Range	Output
IPSS-G2000-5C	Ceramic	0-2 Bar G (0-29psi)	4-20mA
IPSS-G5000-5C	Ceramic	0-5 Bar G (0-73psi)	4-20mA
IPSS-GM1P5-5C	Ceramic	-1 to +5 Bar G (-14.5 to +73psi)	4-20mA
IPSS-C0072-5C	Ceramic	-1 to +19 Bar G (-14.5 to +276psi)	4-20mA
IPSS-A2000-5C	Ceramic	0-2 Bar Abs (0-29psiA)	4-20mA



## DIMENSIONS

All dimensions are in millimeters.



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