

**ENGLISH**

## Datasheet

**Stock Nos:** 825748, 8285748, 8285751, 8285754, 8285757, 8285760, 8285763, 8285767, 8285773, 8285776, 8285779, 8285782, 8285785, 8285789, 8285791, 8285795, 8285798, 8285802, 8285805, 8285808, 8285811, 8285814, 8285818, 8285820, 8285824, 8285827, 8285833, 8285836

# IPSS 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 certificate.

- *Piezo-resistive sensor, Ceramic or Silicon*
- *Accuracy  $< \pm 0.25\%$  FS BFSL*
- *Various outputs including Volts and mA.*
- *Pressure ranges from 100mbar to 100 bar*
- *Pressure reference, Gauge or Absolute*

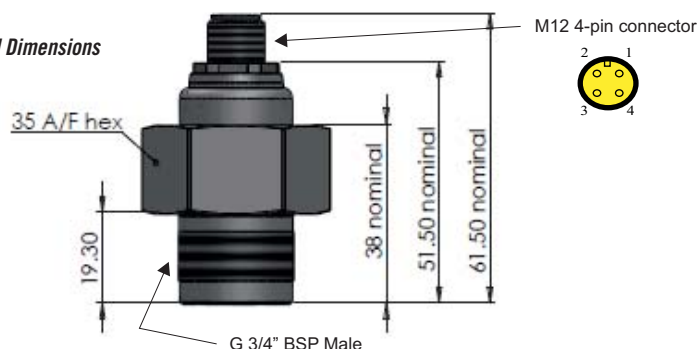
### Suitable applications

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

### Performance

Accuracy (Non-Linearity & Hysteresis)	$< \pm 0.25\%$ / FS (BFSL)	
Setting Errors (offsets)	2-wire	Zero & Full Scale, $< \pm 0.5\%$ / FS
	3-wire	Zero & Full Scale, $< \pm 0.5\%$ / FS
Permissible Load	2-wire	$R_{max} = [(VS - VS_{min}) / 0.02] \Omega$
	3-wire	$R_{min} = 10k\Omega$
Influence Effects	Supply	$< 0.005\%$ FS / 1V
	Load	0.05% FSO / $k\Omega$

### Mechanical Dimensions



### Material Specifications

Housing	303 Stainless Steel
"O" ring seals	Viton
Diaphragm	316L Stainless Steel or Ceramic
Media wetted parts	Housing & process connection, "O" ring seal, diaphragm

### Miscellaneous

Current consumption 2-wire	limits at 28mA
	3-wire - typical 6mA
Weight	Approx 100g
Installation position	Any, small zero shift when tilted through 90° for silicon
Operational Life	$> 100 \times 10^6$ cycles
Insulation resistance	$> 50M\Omega$ at 50Vdc

### Electrical Protection

Supply reverse polarity	No damage but also no function
Electromagnetic compatibility	CE Compliant

### Mechanical Stability

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

### Temperatures & Thermal Effects

Media Temperature	-40°C to +125°C
Ambient Temperature	-20°C to +80°C
Storage temperature	-40°C to +125°C
Compensated temperature	+20°C to +80°C
Thermal Zero Shift (TZS)	$< \pm 0.04\%$ / FS/°C
Thermal Span Shift (TSS)	$< -0.015\%$ /°C



## IPSS series

### Semi-Flush Mount Pressure Transmitter

#### Input Pressure Ranges

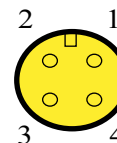
Nominal pressure, Gauge,	Bar	0.1	0.5	1	2	5	10	20	50	100
Nominal pressure*, Absolute	Bar	-	-	1	2	5	10	20	-	-
Nominal pressure*, Compound	Bar	-1 to +1	-1 to +5	-1 to +9	-1 to +19					
Permissible Overpressure	Bar	2	2	5	5	10	20	50	100	200

\* Ceramic sensor only

#### Output Signal and Supply Voltage

#### Wiring Designation

Wire system	Output	Supply Volts	Connection	Pin No. (M12 4-pin connector)
2-wire	4-20mA	9-32Vdc	+ve Supply -ve Supply Ground	Pin 1 Pin 2 Pin 3
3-wire	0-10Vdc (non-ratiometric)	14-32 Vdc	+ve Supply -ve Supply +ve Output Ground	Pin 1 Pin 2 Pin 3 Pin 4



RS Stock No.	Part No	Sensor type	Pressure Range	Output
8285754	IPSS-G0100-5S	Silicon	0-100mbar G (0-1.4psi)	4-20mA
8285757	IPSS-G0500-5S	Silicon	0-500mbar G (0-7.25psi)	4-20mA
8285751	IPSS-G1000-5S	Silicon	0-1000mbar G (0-14.5psi)	4-20mA
8285760	IPSS-G2000-5C	Ceramic	0-2 Bar G (0-29psi)	4-20mA
8285763	IPSS-G5000-5C	Ceramic	0-5 Bar G (0-73psi)	4-20mA
8285767	IPSS-G1002-5C	Ceramic	0-10 Bar G (0-145psi)	4-20mA
8285776	IPSS-G2002-5C	Ceramic	0-20 Bar G (0-290psi)	4-20mA
8285779	IPSS-G5002-5C	Ceramic	0-50 Bar G (0-725psi)	4-20mA
8285773	IPSS-G1003-5C	Ceramic	0-100 Bar G(1450psi)	4-20mA
8285782	IPSS-G0100-7S	Silicon	0-100mbar G (0-1.4psi)	0-10V
8285785	IPSS-G0500-7S	Silicon	0-500mbar G (0-7.25psi)	0-10V
8285789	IPSS-G1000-7S	Silicon	0-1000mbar G (0-14.5psi)	0-10V
8285798	IPSS-G2000-7C	Ceramic	0-2 Bar G (0-29psi)	0-10V
8285791	IPSS-G5000-7C	Ceramic	0-5 Bar G (0-73psi)	0-10V
8285795	IPSS-G1002-7C	Ceramic	0-10 Bar G (0-145psi)	0-10V
8285805	IPSS-G2002-7C	Ceramic	0-20 Bar G (0-290psi)	0-10V
8285808	IPSS-G5002-7C	Ceramic	0-50 Bar G (0-725psi)	0-10V
8285802	IPSS-G1003-7C	Ceramic	0-100 Bar G(1450psi)	0-10V
8285811	IPSS-GM1P1-5C	Ceramic	-1 to +1 Bar G (-14.5 to +14.5psi)	4-20mA
8285814	IPSS-GM1P5-5C	Ceramic	-1 to +5 Bar G (-14.5 to +73psi)	4-20mA
8285818	IPSS-GM1P9-5C	Ceramic	-1 to +9 Bar G (-14.5 to +131psi)	4-20mA
8285827	IPSS-C0072-5C	Ceramic	-1 to +19 Bar G (-14.5 to +276psi)	4-20mA
8285820	IPSS-A1000-5C	Ceramic	0-1 Bar Abs (0-14.5psiA)	4-20mA
8285824	IPSS-A2000-5C	Ceramic	0-2 Bar Abs (0-29psiA)	4-20mA
8285833	IPSS-A5000-5C	Ceramic	0-5 Bar Abs (0-73psiA)	4-20mA
8285836	IPSS-A1002-5C	Ceramic	0-10 Bar Abs (0-1345psiA)	4-20mA