Datasheet

ENGLISH

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

- ***Piezo-resistive sensor, Ceramic or Silicon***
- ***Accuracy <±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

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.

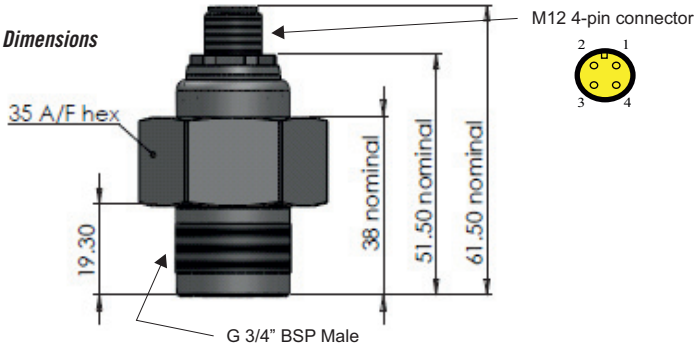
The electronics incorporate a microprocessor-based amplifier, requiring no adjusting and giving stable electronics - especially in high vibration or shock applications.

Every device is temperature compensated, calibrated and supplied with a traceable serial number and calibration data*.

Performance

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

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 x 10^6 cycles
Insulation resistance	> 50MOhms 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	-40ºC to +125ºC
Ambient Temperature	-20ºC to +80ºC
Storage temperature	-40ºC to +125ºC
Compensated temperature	+20ºC to +80ºC
Thermal Zero Shift (TZS)	<±0.04% /FS/ºC
Thermal Span Shift (TSS)	<-0.015% /ºC

Specifications are subject to change without prior notice.

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

IPSS series

Semi-Flush Mount Pressure Transmitter

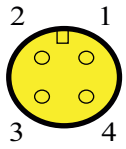
Input Pressure Ranges

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	Pin 1
			-ve Supply	Pin 2
			Ground	Pin 3
3-wire	0-10Vdc (non-ratiometric)	14-32 Vdc	+ve Supply	Pin 1
			-ve Supply	Pin 2
			+ve Output	Pin 3
			Ground	Pin 4



RS Stock No.	Sensor type	Pressure Range	Output
8285754	Silicon	0-100mbar G (0-1.4psi)	4-20mA
8285757	Silicon	0-500mbar G (0-7.25psi)	4-20mA
8285751	Silicon	0-1000mbar G (0-14.5psi)	4-20mA
8285760	Ceramic	0-2 Bar G (0-29psi)	4-20mA
8285763	Ceramic	0-5 Bar G (0-73psi)	4-20mA
8285767	Ceramic	0-10 Bar G (0-145psi	4-20mA
8285776	Ceramic	0-20 Bar G (0-290psi)	4-20mA
8285779	Ceramic	0-50 Bar G (0-725psi)	4-20mA
8285773	Ceramic	0-100 Bar G(1450psi)	4-20mA
8285782	Silicon	0-100mbar G (0-1.4psi)	0 -10V
8285785	Silicon	0-500mbar G (0-7.25psi)	0 -10V
8285789	Silicon	0-1000mbar G (0-14.5psi)	0 -10V
8285798	Ceramic	0-2 Bar G (0-29psi)	0 -10V
8285791	Ceramic	0-5 Bar G (0-73psi)	0 -10V
8285795	Ceramic	0-10 Bar G (0-145psi	0 -10V
8285805	Ceramic	0-20 Bar G (0-290psi)	0 -10V
8285808	Ceramic	0-50 Bar G (0-725psi)	0 -10V
8285802	Ceramic	0-100 Bar G(1450psi)	0 -10V
8285811	Ceramic	-1 to +1 Bar G (-14.5 to + 14.5psi)	4-20mA
8285814	Ceramic	-1 to +5 Bar G (-14.5 to +73psi)	4-20mA
8285818	Ceramic	-1 to +9 Bar G (-14.5 to +131psi)	4-20mA
8285827	Ceramic	-1 to +19 Bar G (-14.5 to +276psi)	4-20mA
8285820	Ceramic	0-1 Bar Abs (0-14.5psiA)	4-20mA
8285824	Ceramic	0-2 Bar Abs (0-29psiA)	4-20mA
8285833	Ceramic	0-5 Bar Abs (0-73psiA)	4-20mA
8285836	Ceramic	0-10 Bar Abs (0-1345psiA)	4-20mA

Made in the UK