



Datasheet

RS PRO Pressure Sensor for Air

Stock No.s: 8285751, 8285754, 828757, 8285760, 8285763,

8285767, 8285773, 8285776, 8285779, 8285782, 8285785, 8285789, 8285791, 8285795, 8285798, 8285802, 8285805, 8285808, 8285811, 8285814, 8285818, 8285820, 8285824, 8285827, 8285833, 8285836



ENGLISH

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.



UK
CA CE

Features

- Piezo-resistive sensor, Ceramic or Silicon
- Accuracy $\leq \pm 0.25\%$ FS BFSL
- Various outputs including Volts and mA
- Pressure ranges from 100mbar to 100 bar
- Pressure reference, Gauge or Absolute
- G3/4" 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

SPECIFICATIONS

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
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 / $k\Omega$

Material

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

Electrical Protection

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

Environmental Conditions

Shock	100g / 11s
Vibration	10g RMS (20 - 2000Hz)
Media Temperature	-40°C to +125°C
Ambient Temperature	-20°C to +80°C
Storage Temperature	-40°C to +125°C
Humidity	5% to 95% RH non-condensing

Temperature & Thermal Effects

Compensated Temperature	+20°C to +80°C
Thermal Zero Shift (TZS)	<±0.04% /FS/°C
Thermal Span Shift (TSS)	<-0.015% /°C



PRESSURE RANGES

Input Pressure Ranges

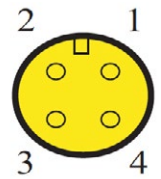
Nominal Pressure, Gauge	Bar	0.1	0.5	1	2	5	10	20	50	100
Nominal Pressure*, Absolute	Bar			1	2	5	10	20		
Nominal Pressure*, Compound	Bar			-1 to +1		-1 to +5	-1 to +9	-1 to +19		
Permissible Overpressure	Bar	2	2		4	10	15	35	100	150

* Ceramic sensor only.

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
3-wire	0 - 10Vdc (non-ratiometric)	14 – 32V dc	+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	0-100 mBar G (0-1.4psi)	4-20mA
8285757	Silicon	0-500 mBar G (0-7.25psi)	4-20mA
8285751	Silicon	0-1000 mBar 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	0-20Bar 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	0-100 mBar G (0-1.4psi)	0-10V
8285785	Silicon	0-500 mBar G (0-7.25psi)	0-10V
8285789	Silicon	0-1000 mBar 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	0-20Bar 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



DIMENSIONS

All dimensions are in millimeters.

