

Features

- Industrial Pressure Sensor - Ceramic
- M12 4-Pin Connector
- Piezo-resitive thick film ceramic sensor
- Stainless Steel body
- Accuracy $<+0.25\%$ FS BFSL
- 0.5V or 4-20mA output
- Pressure ranges from -1 to 400 bar

RS PRO Pressure Sensors

RS Stock No.: 175-4981, 175-4984, 175-4985, 175-4986, 175-4989, 175-4990, 175-4991, 175-4995, 175-4998, 175-4999, 175-5000, 175-5002, 175-5003



RS PRO is the own brand of RS. The RS PRO Seal of Approval is your assurance of professional quality, a guarantee that every part is rigorously tested, inspected, and audited against demanding standards. Making RS PRO the Smart Choice for our customers.

Product Description

*This RS PRO 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.**

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

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

Material

Housing Material	316L Stainless Steel
"O" Ring Seals	Viton
Diaphragm Material	Ceramic Al ₂ O ₃ 96%
Media Wetted Parts	Housing & connection, 'O' ring seal, diaphragm
Weight	Approx 100g
Installation Position	Any
Operation Life	>100 x 10 ⁶ cycles
Insulation Resistance	>50MOhms at 50Vdc
Environmental Protection	IP67 (when used with a similarly rated connector)

Electrical Protection

Supply Reverse Polarity	No damage/no function
Electromagnetic Compatibility	CE Compliant

Environmental Conditions

Shock	100g / 11ms
Vibration	10g RMS (20 - 2000Hz)
Media Temperature	-40°C to +135°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 Range	+20°C to +80°C
Thermal Zero Shift (TZS)	<+0.04% /FS/°C
Thermal Span Shift (TSS)	<-0.015% /°C

Pressure Ranges & 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	15	35	100	150	350	500
Burst Pressure	bar	3	6	12	20	50	120	200	500	650

Output Signal & Supply Voltage

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	
			Output Pin 3	Earth Pin 4	

Range

RS Stock No.	Pressure Range	Output
175-4984	0 - 1 Bar G	0 - 5V
175-5002	0 - 6 Bar G	0 - 5V
175-5003	-1 to +9 /bar G	4 - 20mA
175-4985	0 - 10 Bar G	4 - 20mA
175-4986	0 - 10 Bar G	0 - 5V
175-4990	0 - 16 Bar G	4 - 20mA
175-4991	0 - 16 Bar G	0 - 5V
175-4981	-1 to +24 Bar G	4 - 20mA
175-4998	0 - 40 Bar G	0 - 5V
175-4987	0 - 100 Bar SG*	4 - 20mA
175-4989	0 - 100 Bar SG*	0 - 5V
175-4995	0 - 250 Bar SG*	4 - 20mA
175-4999	0 - 400 Bar SG*	4 - 20mA
175-5000	0 - 400 Bar SG*	0 - 5V

*sealed gauge only

All dimensions are in millimeters.

