

## Features

- Industrial Pressure Sensor
- Piezo-resistive thick film ceramic sensor
- M12 4-pin Connector
- Stainless Steel Body
- Accuracy  $\leq +0.25\%$  FS BSL
- 0-5V or 4-20mA Output
- Pressure ranges from -14.5 to 5800 psi
- $\frac{1}{4}$ "NPT Process connection

## RS PRO Pressure Sensors

RS Stock No.: 175-5030, 175-5033, 175-5034, 175-5035, 175-5039, 175-5047, 175-5048, 175-5050 175-5052, 175-5053



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

*The 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 <sub>2</sub> O <sub>3</sub> 96%
Media Wetted Parts	Housing & connection, 'O' ring seal, diaphragm
Weight	Approx 100g
Installation Position	Any
Operation Life	>100 x 10 <sup>6</sup> cycles
Insulation Resistance	>50M0hms at 50Vdc
Environmental Protection	IP67 (only when used with a similarly rated connector)

## 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 +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	<-0.015% /°C

## Pressure Ranges & Passive mV/V Outputs

Nominal Pressure, Gauge	psi	15	30	75	100	150	300	750	1500	3600	5800
Compound Range	psi					-14.5 to +150	-14.5 to +350				
Permissible Overpressure	psi	30	60	150	225	225	500	1500	2000	5000	7000
Burst Pressure	psi	45	75	180	300	300	700	1800	3000	7000	9500

## Output Signal & Supply Voltage

Wire System	Output	Supply Voltage	Connection Pin Nos		
2-wire	4 – 20mA	9 – 32V dc	+ve Supply Pin 1	-ve Supply Pin 2	Ground Earth Pin 3
3-wire	0 – 5Vdc	9 – 32V dc	+ve Supply Pin	-ve Supply Pin 2	
			Output Pin 3	Earth Pin 4	

## Range

RS Stock No.	Range	Output
175-5030	-14.5 to +150 psi G	4-20mA
175-5033	-14.5 to +350 psi G	0-5V
175-5034	0-15 psi G	4-20mA
175-5035	0-15 psi G	0-5V
175-5039	0-75 psi G	0-5V
175-5047	0-300 psi G	0-5V
175-5048	0-3600 psi SG*	4-20mA
175-5050	0-5800 psi SG*	4-20mA
175-5052	0-750 psi G	4-20mA
175-5053	0-750 psi G	0-5V

\*sealed gauge only

All dimensions are in millimeters.

