



Datasheet

RS PRO Pressure Sensor for Air

Stock No.s: 7974989, 7974983, 7975043, 7975009, 7975011, 7975046, 7975024, 7974970, 7974992, 7975018, 7975037, 7974964, 7974999, 7974961, 7975052, 7975015, 7975030, 7974977, 7975027, 7975033, 7974995, 7975021, 7975005, 7975049, 7974967, 7974986, 7975002, 7974955, 7974973, 8285741, 8285745



ENGLISH

IPS SERIES

INDUSTRIAL PRESSURE TRANSDUCER - CERAMIC



The IPS 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.

Features

- Piezo-resistive thick film ceramic sensor
- Stainless steel body
- Accuracy $\leq \pm 0.25\%$ FS BFSL
- Various outputs including mV, Volts and mA
- Pressure ranges from -1 to 400 bar
- 1/4" BSP Pressure port connection



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
	4-wire	Zero & Full Scale, $\leq \pm 0.5\%$ / FS
		@ 10 Volts

Material

Housing	303 Stainless Steel
"O" Ring Seals	Viton
Diaphragm	Ceramic Al_2O_3 96%
Media Wetted Parts	Housing & connection, 'O' ring seal, diaphragm
Weight	Approx 100g
Installation Position	Any
Operation Life	$> 100 \times 10^6$ cycles
Insulation Resistance	> 50 MOhms at 50Vdc

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

Pressure Ranges & Passive mV/V Outputs

Nominal Pressure, Gauge	bar	1	6	10	16	25	40	100	250	400
Compound Range	bar			-1 to +9		-1 to +24				
Permissible Overpressure	bar	2	10	15	35	100	100	150	350	500
Burst Pressure	bar	3	12	20	50	120	120	200	500	650

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-wire	0 - 5V dc	9 – 32V dc	+ve Supply Pin 1	-ve Supply Pin 2	
			+ve Output Pin 3	Ground Earth Pin	
4-wire	10mV/V	9 – 32V dc	+ve Supply	Pin 1	
			-ve Supply	Pin 2	
			+ve Output	Pin 3	
			-ve Output	Ground Earth Pin	

RS Stock No.	Pressure Rating	Output
7974989	0 - 1 Bar G	0 - 100mV
7974983	0 - 1 Bar G	4 - 20mA
7975043	0 - 1 Bar G	0 - 5V
7975009	0 - 6 Bar G	0 - 100mV
7975011	0 - 6 Bar G	4 - 20mA
7975046	0 - 6 Bar G	0 - 5V
7975024	-1 to +9 Bar G	4 - 20mA
7974970	-1 to +9 Bar G	0 - 5V
7974992	0 - 10 Bar G	0 - 100mV
7975018	0 - 10 Bar G	4 - 20mA
7975037	0 - 10 Bar G	0 - 5V
7974964	0 - 16 Bar G	0 - 100mV
8285741	0 - 16 Bar G	4 - 20mA
8285745	0 - 16 Bar G	0 - 5V
7974999	-1 to +24 Bar G	4 - 20mA
7974961	-1 to +24 Bar G	0 - 5V

RS Stock No.	Pressure Rating	Output
7975052	0 - 25 Bar G	0 - 100mV
7975015	0 - 25 Bar G	4 - 20mA
7975030	0 - 25 Bar G	0 - 5V
7974977	0 - 40 Bar G	0 - 100mV
7975027	0 - 40 Bar G	4 - 20mA
7975033	0 - 40 Bar G	0 - 5V
7974995	0 - 100 Bar G	0 - 100mV
7975021	0 - 100 Bar G	4 - 20mA
7975005	0 - 100 Bar G	0 - 5V
7975049	0 - 250 Bar G	0 - 100mV
7974967	0 - 250 Bar G	4 - 20mA
7974986	0 - 250 Bar G	0 - 5V
7975002	0 - 400 Bar G	0 - 100mV
7974955	0 - 400 Bar G	4 - 20mA
7974973	0 - 400 Bar G	0 - 5V



DIMENSIONS

All dimensions are in millimeters.

