



Series RSP0270

Improved Accuracy Pressure Transducers

RSP0270



150 - 200 PSI - 38.1mm Dia.



250 PSI and up - 25.4mm Dia.

Description

The Series RSP0270 pressure transducers are 0.15% accuracy millivolt/volt output units designed specifically for test and measurement applications. The RSP0270 pressure transducer utilizes a unique bonded beam sensing technology which provides improved reliability. All units are constructed of welded stainless steel. Standard pressure ranges are 150 psi to 40,000 psi in both gage and absolute references. All RSP0270 pressure transducers are shock and vibration resistant. A comprehensive selection of pressure ports and electrical terminations are also available. Each unit is shipped with a standard 19 point calibration record traceable to NIST.

Standard Features

- $\pm 0.15\%$ FSO Accuracy
- 3 mV/V Output
- Stainless Steel Construction
- Ranges to 40K psi
- 19 Point Calibration Record

Optional Features

- Customer Specified Electrical Connectors
- Special Ranges
- Customer Specified Pressure Ports
- Shunt Calibration
- Zero Adjustment Pot

Series RSP0270 Specifications

Baseline Configuration Specs Represented.
Modifications Encouraged - See Below
Custom Designs Available

Performance

Static Accuracy

± 0.15% FSO.
± 0.20% FSO (15 PSIG - 200 PSIG).

Resolution

Infinite.

Thermal Zero Shift

< ± 0.018% FSO/°C (typical).

Thermal Sensor Shift

< ± 0.018% FSO/°C (typical).

Zero Balance

±0.50% FSO at 20°C.

Full Scale Output

3.0 ± 0.015 mV/V at 20°C.

Mechanical Characteristics

Standard Ranges

0 - 150, 200, 500,
750, 1000, 1500, 2000, 3000, 5000,
7500, 10000, 15000, 20000, 25000,
30000 and 40000 PSIA / PSIG.

Proof Pressure

1.5 X range.

Burst Pressure

2.0 X range.

Operating Media

Fluids and gases compatible with
17-4 stainless steel.
Inconel and other materials optional.

Enclosure

Body of stainless steel.

Pressure Fitting

(For ranges 15 psi thru 10,000 psi).

BSP G ¼ B Female (Standard)
BSP G ¼ B Male, G ½ B Female, G ½ B Male,
¼" NPT Male, ½" NPT Female (No charge options)
Metric threads available

(For ranges 15,000 psi thru 40,000 psi)

AE F250-C, 9/16-18 UNF (Standard)
Metric equivalent of AE F250-C (No charge option)

For additional pressure fittings
please consult factory.

Weight

175 g.

Electrical Characteristics

Excitation

10 Vdc recommended, 15 Vdc max.

Input / Output Resistance

350 ± 3.5 ohms at 20°C.

Insulation Resistance

> 10K megohms at 50 Vdc at 20°C.

Electrical Termination

PTIH-10-6P stainless steel connector
or equivalent.

Optional electrical terminations available.

Environmental Characteristics

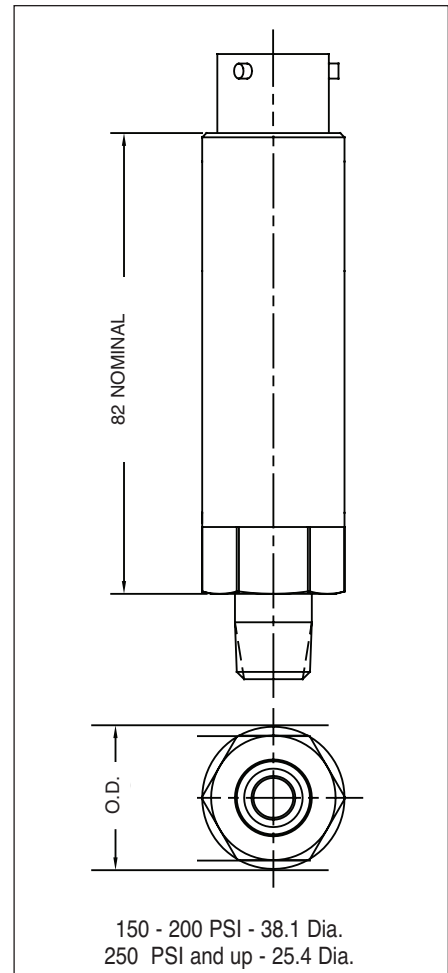
Compensated Temperature Range

-34°C to +76°C.
Options available.

Operating Temperature Range

-50°C to +120°C.

Dimensions (mm)



CE
0539

MODIFICATIONS: We realize transducer applications vary greatly and as such our designs are flexible. Choice of pressure port, electrical termination, material compatibility and performance characteristics are a few of the many options available. Specifications on this datasheet represent the standard configuration only. Product and company names listed are trademarks of their respective companies. Specifications subject to change without notice.

WARRANTY: RDP warrants that its product shall be free from defective workmanship and/or material for a twelve month period from the date of shipment, provided that RDP's obligation hereunder shall be limited to correcting any defective material FOB our factory. No allowance will be made for any expenses incurred for correcting any defective workmanship and/or material without written consent by RDP. This warranty is in lieu of all other warranties expressed or implied.

Due to the nature of technology, changes are inevitable. For latest technical specifications, see our website.

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