



| P255

Stainless Steel Pressure Transducer

Description

The model P255 is based on Kavlico's fieldproven ceramic capacitive technology with the latest state-of-the-art ASIC. Featuring a 316SS housing, the P255 is designed for general use wherever a rugged and reliable pressure transducer is required. The P255 package has a built-in Metri-Pack 150, electrical connector and supports popular process connection threads. The P255 is offered with a variety of seal materials and is suitable for many diverse applications. Specifically intended for OEM applications, the P255 delivers a cost effective solution without compromising performance or reliability.



Features

- Dry Media *1
- Superior Long Term Stability
- Excellent Repeatability/Hysteresis
- Superior EMI/RFI Rejection
- Low Power Consumption
- Linear Output
- Temperature Compensated
- Over-Voltage, Reverse Polarity & Short Circuit Protection
- Ten Million Cycle Life Expectancy
- Outstanding Shock & Vibration Performance

1. For wet conductive media please contact us

Applications

- Steam Sterilizers
- Gasoline & Diesel Engines
- Natural Gas & CNG Engines
- Agricultural Chemical Equipment
- Level Measurement
- Test Equipment
- Injection Molding
- Coolant Pressure
- Industrial Compressors



MAIN FEATURES

| | |
|------------------------------|---|
| Pressure Ranges | 0 to 15 up to 0 to 1000 PSI |
| Electrical Connection | Packard Electric Metri-Pack 150 Series |
| Pressure Connection | 1/4-18 NPT (external), 3/8-24 UNF-2A (male)*1 |
| Housing Material | 316 Stainless Steel |
| Output Signal | 0.5 - 4.5 VDC |

1. for more options see how to order



Pressure Ranges

| | | | | | | | | | | | | | |
|------------------------------|-------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|
| from 0 to... | PSIA, PSIG, PSIS (gage) | 15 | 20 | 30 | 50 | 75 | 100 | 150 | 200 | 300 | 500 | 750 | 1000 |
| Proof Pressure (min) | PSI (gage) | 75 | 100 | 150 | 250 | 375 | 300 | 450 | 600 | 900 | 1500 | 1500 | 2000 |
| Burst Pressure Factor | PSI (gage) | 100 | 1000 | 1000 | 1000 | 1000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 |

Physical

| | |
|------------------------------|---|
| Operating Life Cycle | min. 10 million full pressure cycles over the full range |
| Vibration Resistance | 10 G's peak to peak sinusoidal (10 to 2000 Hz) |
| Shock Resistance | 75 G's ½ sinewave |
| Drop Test | 1 meter drop on concrete as per SAE J1455 / DIN EN 60068-2-3-1 |
| Weight | ≤ 100 grams (without mating connector) |
| Ingress Protection | IP67 - depending on electrical connector |
| Operating Temperature | -40°C to 125°C (depending on seal material) *2 |
| Storage Temperature | -40°C to + 125°C (depending on seal material) *2 |
| Media | All class II fluids and gases compatible with stainless steel 3/6 and the internal seal ring material |

2. for more details see Ordering Options

Performance

| | |
|----------------------------------|---|
| Total error band *3 | +/-2% of span (-20 ≤ T ≤ 100° C) +/-3% of span (T < -20° C, T < 100° C) |
| Stability coefficient | +/-0.5 % of full span over 1 year |
| Temp. Coefficients - Zero | 0.2 % of span / 10 K within temperature range 0°C to + 80°C.2 % |
| Temp. Coefficients - Span | 0.2 % of span / 10 K within temperature range 0°C to + 80°C.2 % |

3. Including non-linearity, hysteresis, non-repeatability, zero point and full scale error (corresponds to error of measurement per IEC 61298-2). Adjusted in vertical mounting position with pressure port down

Electrical

| | |
|------------------------------------|--|
| Output Signal | 0.5...4.5 VDC Ratiometric |
| Operating Supply Signal | 5 VDC \pm 10% |
| Power Consumption | \leq 25 mW |
| Overvoltage Protection | 16 VDC |
| Short-circuit Proofness | Yes *4 |
| Insulation Voltage | 500 VDC |
| Reverse Polarity Protection | Yes *5 |
| Load | \geq 25 k Ω |
| Response Time | 15 ms max. to 63% of full scale pressure with step change on input |

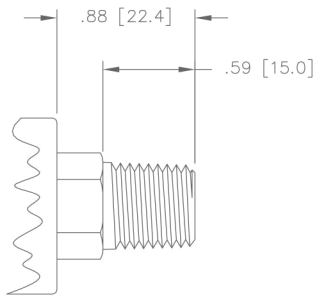
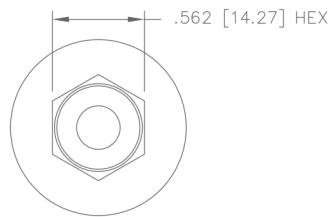
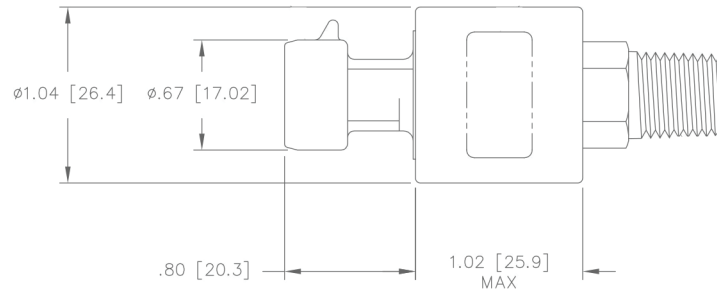
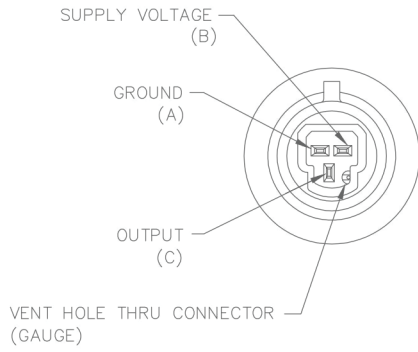
4. for min. 3 intervals at 5 minutes each

5. for min. 10 seconds on assigned pins

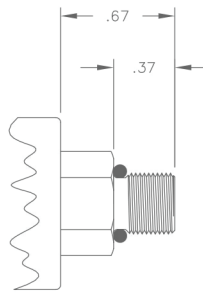


DIMENSIONS

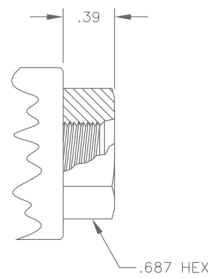
Dimensions in mm [Inch]



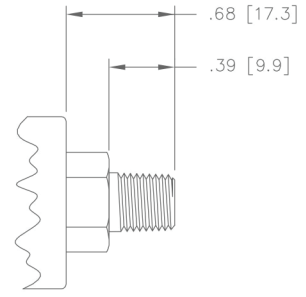
-1
1/4-18 NPT



-2
3/8-24UNF-2A
SUPPLIED WITH
O-RING



-3
3/8-24 UNF-2B
INTERNAL THREAD
O-RING BOSS PER
SAE J514



-4
1/8-27 NPT



ORDERING OPTIONS

Example: P255-15A-B1A

P255Sensor, 0 - 15 PSI, Nitrile Seal Material, 1/4 - 18 NPT Pressure Connection with Mating Connector

P255 - 15 A - B 1 A

Family _____

P255

Pressure Ranges _____

| | |
|------|----------|
| 15 | 0 - 15 |
| 20 | 0 - 20 |
| 30 | 0 - 30 |
| 50 | 0 - 50 |
| 75 | 0 - 75 |
| 100 | 0 - 100 |
| 150 | 0 - 150 |
| 200 | 0 - 200 |
| 300 | 0 - 300 |
| 500 | 0 - 500 |
| 750 | 0 - 750 |
| 1000 | 0 - 1000 |

Reference _____

A: Absolute
G: Gage
S: Sealed Gauge (0 PSIS = 14.7 PSIA)

Seal Material _____

B: Nitrile
C: Neoprene
D: Fluorocarbon
E: Fluorosilicone
F: Ethylene Propylene

Pressure Connection (Port) _____

1: 1/4 - 18 NPT (Male)
2: 3/8 - 24 UNF-2A (Male)
3: 3/8 - 24 UNF-2B (Female)
4: 1/8 - 27 NPT (Male)

Built-in Electrical Connector _____

A: Packard with Mating Connector
C: Packard without Mating Connector



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2011/65/EU ROHS Directive

Revised 2/7/18

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