



## | 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

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

*1. for more options see how to order*



## Pressure Ranges

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

## Physical

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

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

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

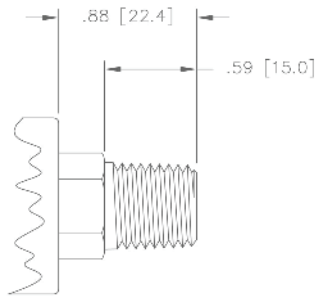
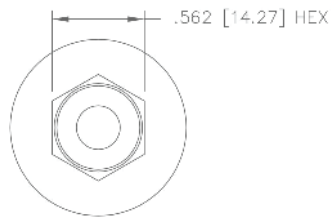
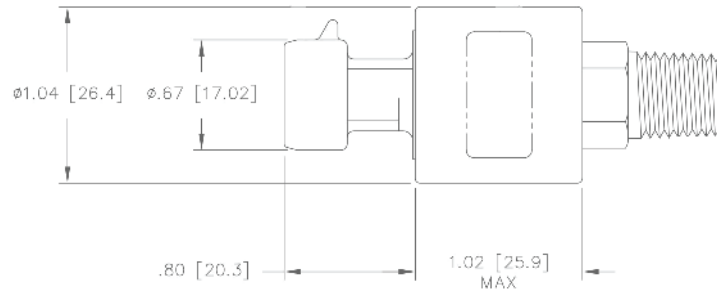
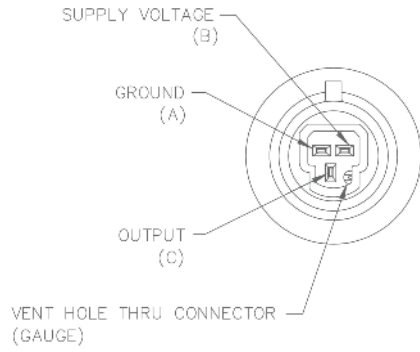
4. for min. 3 intervals at 5 minutes each

5. for min. 10 seconds on assigned pins

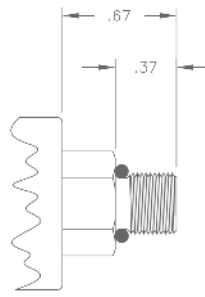


# DIMENSIONS

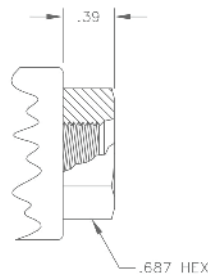
Dimensions in mm [Inch]



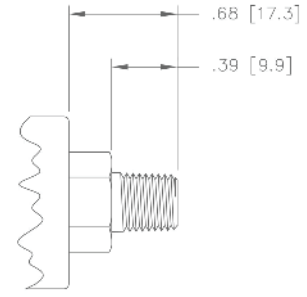
-1  
1/4-18 NPT



-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-B1-A

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



## AGENCY APPROVALS & CERTIFICATIONS



2011/65/EU ROHS Directive

Revised 2/7/18

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