



## | 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

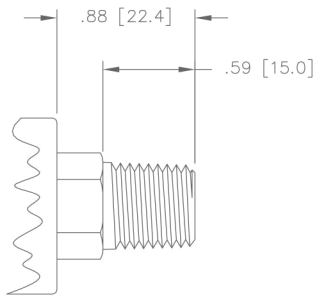
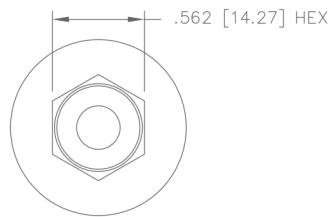
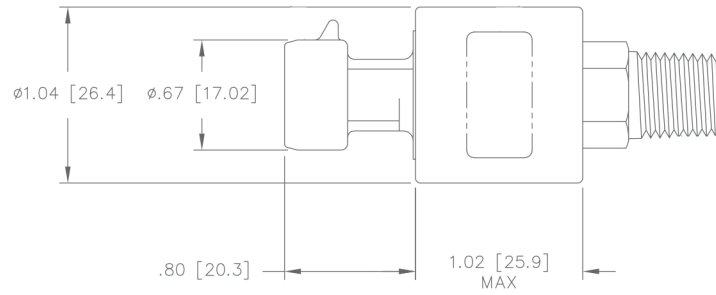
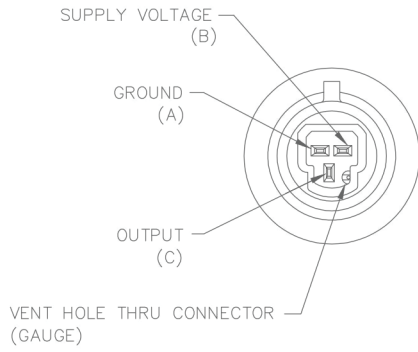
4. for min. 3 intervals at 5 minutes each

5. for min. 10 seconds on assigned pins

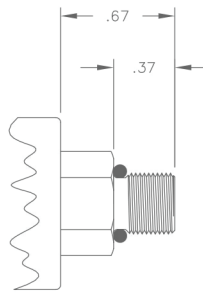


# DIMENSIONS

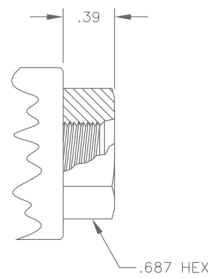
Dimensions in mm [Inch]



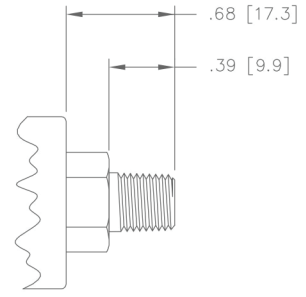
-1  
1/4-18 NPT



-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-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



## AGENCY APPROVALS & CERTIFICATIONS



2011/65/EU ROHS Directive

Revised 2/7/18

Sensata Technologies, Inc. ("Sensata") data sheets are solely intended to assist designers ("Buyers") who are developing systems that incorporate Sensata products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, evaluation and judgment in designing Buyer's systems and products. Sensata data sheets have been created using standard laboratory conditions and engineering practices. Sensata has not conducted any testing other than that specifically described in the published documentation for a particular data sheet. Sensata may make corrections, enhancements, improvements and other changes to its data sheets or components without notice.

Buyers are authorized to use Sensata data sheets with the Sensata component(s) identified in each particular data sheet. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER SENSATA INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN. SENSATA DATA SHEETS ARE PROVIDED "AS IS". SENSATA MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE DATA SHEETS OR USE OF THE DATA SHEETS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. SENSATA DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO SENSATA DATA SHEETS OR USE THEREOF.

All products are sold subject to Sensata's terms and conditions of sale supplied at [www.sensata.com](http://www.sensata.com) SENSATA ASSUMES NO LIABILITY FOR APPLICATIONS ASSISTANCE OR THE DESIGN OF BUYERS' PRODUCTS. BUYER ACKNOWLEDGES AND AGREES THAT IT IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH ALL LEGAL, REGULATORY AND SAFETY-RELATED REQUIREMENTS CONCERNING ITS PRODUCTS, AND ANY USE OF SENSATA COMPONENTS IN ITS APPLICATIONS, NOTWITHSTANDING ANY APPLICATIONS-RELATED INFORMATION OR SUPPORT THAT MAY BE PROVIDED BY SENSATA.

Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA.

### CONTACT US

#### Americas

+1 (800) 350 2727  
sensors@sensata.com  
switches@sensata.com

#### Europe, Middle East & Africa

+359 (2) 809 1826  
pressure-info.eu@sensata.com

#### Asia Pacific

sales.isasia@list.sensata.com  
China +86 (21) 2306 1500  
Japan +81 (45) 277 7117  
Korea +82 (31) 601 2004  
India +91 (80) 67920890  
Rest of Asia +886 (2) 27602006  
ext 2808