RoHS

Data Sheet
P255
Stainless Steel Pressure Transducer

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

Attributes

- 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

Typical Applications

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

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.

Technical Specifications

Pressure Ranges

From 0 to …	PSIA, PSIG, PSIS (gage)	1 5	20	30	50	75	100	150	200	300	500	750	1000
Proof pressure	PSI (gage)	75	100	150	250	375	300	450	600	900	1500	1500	2000
Burst pressure	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 How to Order

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 ± 10%
Power Consumption	≤ 25 mW
Overvoltage Protection	16 VDC
Short-circuit Proofness	Yes *4
Insulation Voltage	500 VDC
Reverse Polarity Protection	Yes *5
Load	≥ 25 kΩ
Response Time	15 ms max. to 63% of full scale pressure with step change on input

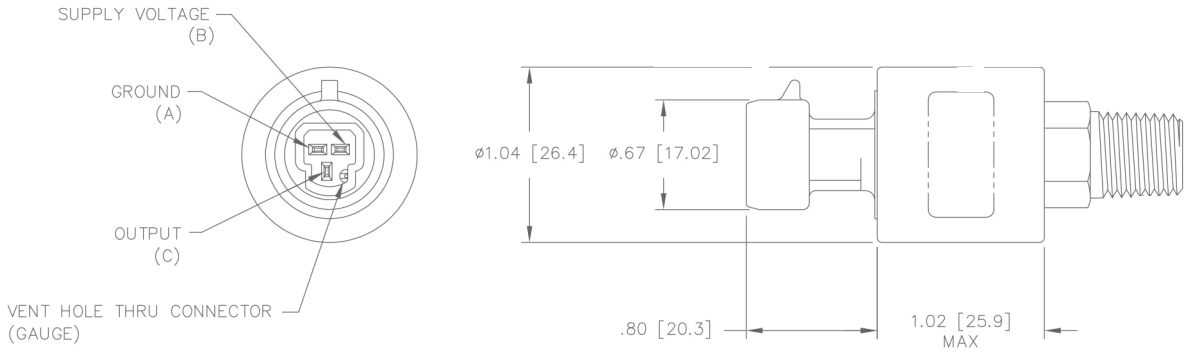
4. for min. 3 intervals at 5 minutes each

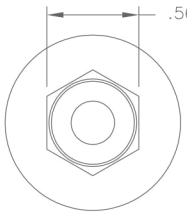
5. for min. 10 seconds on assigned pins

Approvals & Certificates

ROHS	2011/65/EU ROHS Directive

Dimensions


SUPPLY VOLTAGE
(B)
GROUND
(A)
OUTPUT
(C)
VENT HOLE THRU CONNECTOR
(GAUGE)
ø1.04 [26.4]
ø.67 [17.02]
.80 [20.3]
1.02 [25.9]
MAX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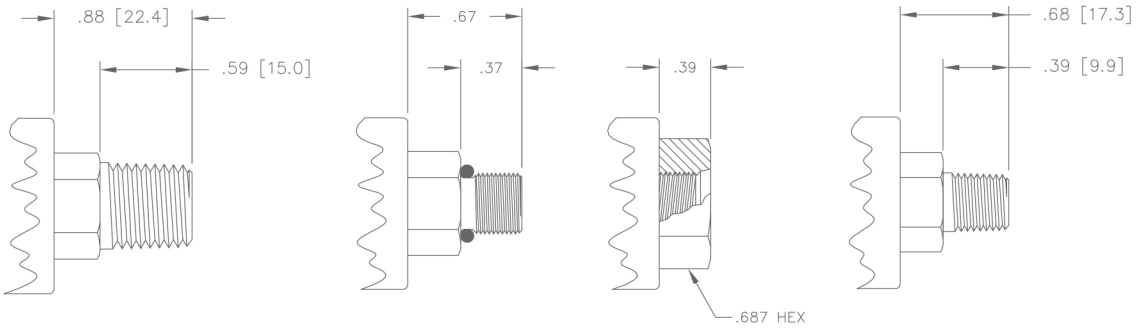
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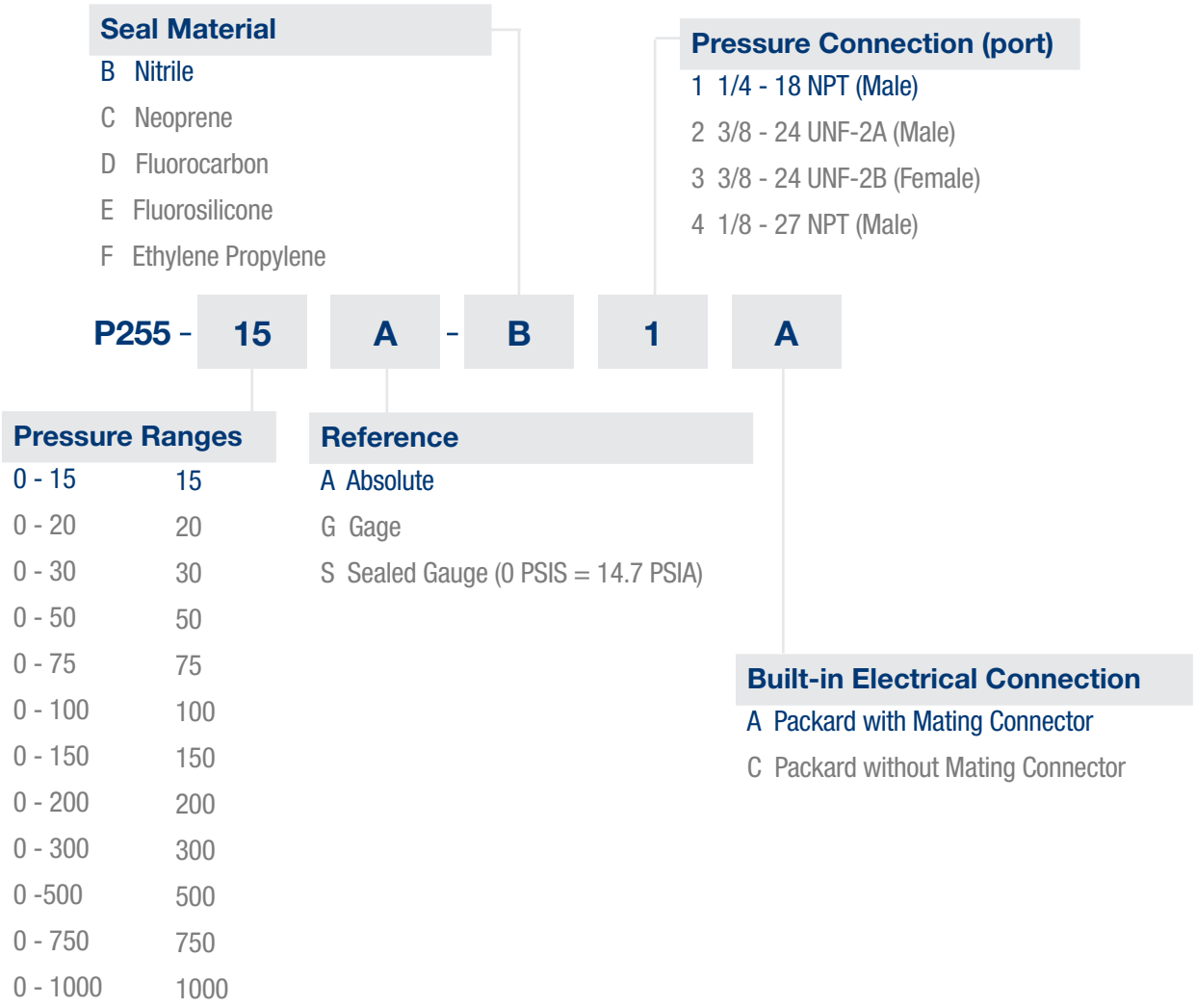
.67
.37
.39
.687 HEX
.68 [17.3]
.39 [9.9]
–1
1/4–18 NPT
–2
3/8–24UNF–2A
SUPPLIED WITH
O–RING
–3
3/8–24 UNF–2B
INTERNAL THREAD
O–RING BOSS PER
SAE J514
–4
1/8–27 NPT

How to Order



Example:
P255-15A-B1A

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

Before installation and operation, ensure that the appropriate pressure sensor has been selected in terms of pressure range, design and specific measuring conditions. Non-compliance can result in serious injury and/or damage to the equipment.

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Ref.: DS_PR_EN_A4_SEPT 2016 I Creation-Design: Kavlico - Photos: Oliver Windus, Fotodesign