

# | P265

## STAINLESS STEEL PRESSURE TRANSDUCER

### Introduction

The model P265 is based on Kavlico’s field proven ceramic capacitive technology with the latest state-of-the-art ASIC. Featuring a 303SS housing, the P265 is designed for general use wherever a rugged and reliable pressure transducer is required. The P265 package has a built-in MetriPack 150, electrical connector and supports popular process connection threads. The P265 is offered with a variety of seal materials and is suitable for many diverse applications. Specifically intended for OEM applications, the P265 delivers a cost effective solution without compromising performance or reliability.



### Features

- Dry Media <sup>(1)</sup>
- 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

### 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, 12" 20" AWG leads  |
| <b>Pressure Connection</b>   | 1/4-18 NPT (external), 3/8-24 UNF-2A (male) <sup>(2)</sup> |
| <b>Housing Material</b>      | 303 Stainless Steel                                        |
| <b>Output Signal</b>         | 0.5 - 4.5 VDC                                              |



## Pressure Ranges

| From 0 to ...  | PSIA,<br>PSIG,<br>PSIS<br>(gage) | 15   | 20   | 30   | 50   | 75   | 100  | 150  | 200  | 300  | 500  | 750  | 1000 |
|----------------|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Proof pressure | PSIA,<br>PSIG,<br>PSIS           | 75   | 100  | 150  | 250  | 375  | 300  | 450  | 600  | 900  | 1500 | 1500 | 2000 |
| Burst pressure | PSIA,<br>PSIG,<br>PSIS           | 1000 | 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    | IP 65 or IP67 - depending on electrical connector                                                     |
| Operating Temperature | -40°C to 125°C (depending on seal material) <sup>(2)</sup>                                            |
| Storage Temperature   | -40°C to 125°C (depending on seal material) <sup>(2)</sup>                                            |
| Media                 | All class II fluids and gases compatible with stainless steel 303 and the internal seal ring material |

## Performance

|                                 |                                                                         |
|---------------------------------|-------------------------------------------------------------------------|
| Total error band <sup>(3)</sup> | +/-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 %         |

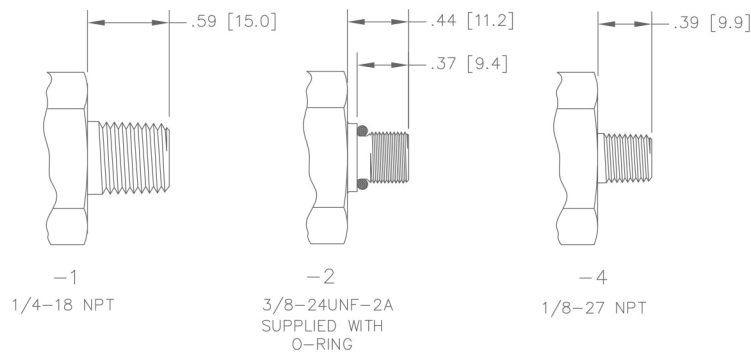
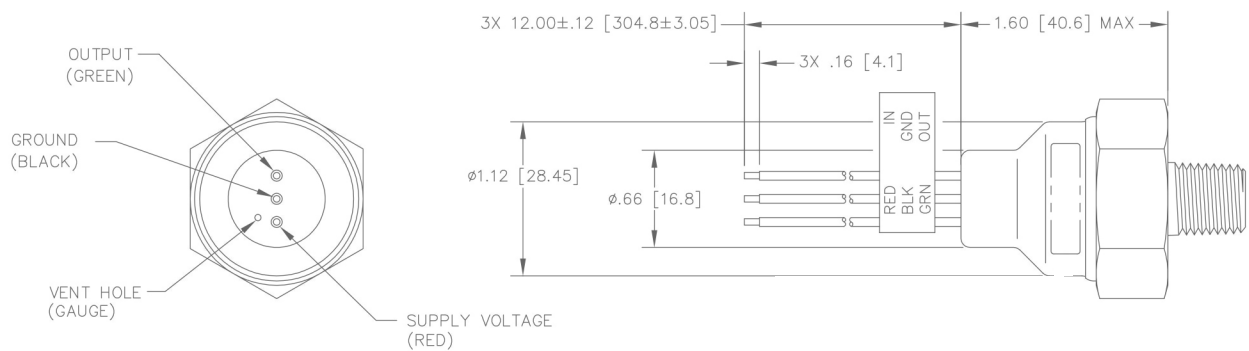
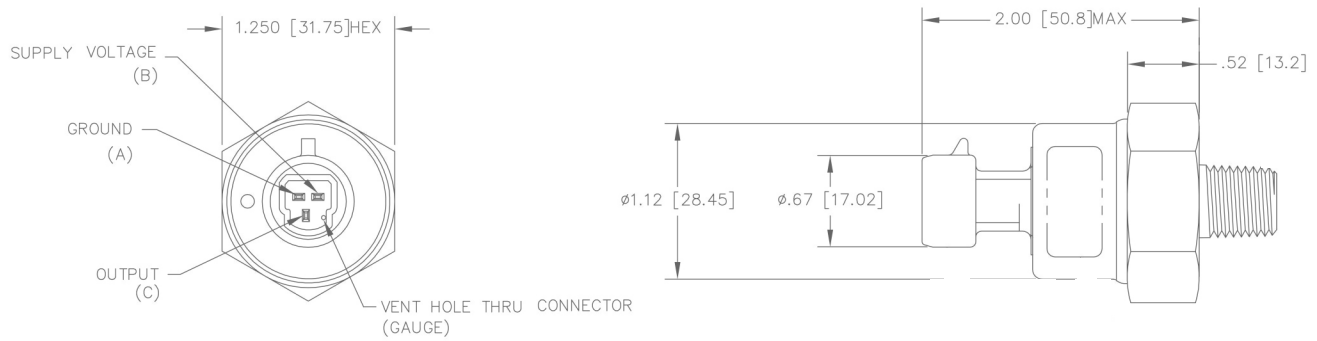
## Electrical

|                             |                                                                    |
|-----------------------------|--------------------------------------------------------------------|
| 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 <sup>(4)</sup>                                                 |
| Insulation Voltage          | 500 VDC                                                            |
| Reverse Polarity Protection | Yes <sup>(5)</sup>                                                 |
| Load                        | ≥ 25 kΩ                                                            |
| Response Time               | 15 ms max. to 63% of full scale pressure with step change on input |



## DIMENSIONS

Dimensions in mm [Inch]



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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## GENERAL NOTES

- <sup>(1)</sup> For wet conductive media please contact us
- <sup>(2)</sup> For more options see Ordering Options
- <sup>(3)</sup> 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
- <sup>(4)</sup> For min. 3 intervals at 5 minutes each
- <sup>(5)</sup> For min. 10 seconds on assigned pins



## ORDERING OPTIONS

Example : P265-500S-F1-A

P265 Pressure Transmitter, 0-500 PSIS (Sealed Gage), with Ethylene Propylene Seal Material, 1/4 - 18 NPT Pressure Connection and Mating Connector

| Family                              | P265               | 500 | S | F | 1 | A |
|-------------------------------------|--------------------|-----|---|---|---|---|
| P265                                |                    |     |   |   |   |   |
| Pressure Ranges                     |                    |     |   |   |   |   |
| 15: 0 - 15 PSI                      | 150: 0 - 150 PSI   |     |   |   |   |   |
| 20: 0 - 20 PSI                      | 200: 0 - 200 PSI   |     |   |   |   |   |
| 30: 0 - 30 PSI                      | 300: 0 - 300 PSI   |     |   |   |   |   |
| 50: 0 - 50 PSI                      | 500: 0 - 500 PSI   |     |   |   |   |   |
| 75: 0 - 75 PSI                      | 750: 0 - 750 PSI   |     |   |   |   |   |
| 100: 0 - 100 PSI                    | 1000: 0 - 1000 PSI |     |   |   |   |   |
| Reference                           |                    |     |   |   |   |   |
| A: Absolute                         |                    |     |   |   |   |   |
| G: Gage                             |                    |     |   |   |   |   |
| S: Sealed Gauge                     |                    |     |   |   |   |   |
| Seal Material                       |                    |     |   |   |   |   |
| B: Nitrile                          |                    |     |   |   |   |   |
| C: Neoprene                         |                    |     |   |   |   |   |
| D: Fluorocarbon                     |                    |     |   |   |   |   |
| E: Fluorosilicone                   |                    |     |   |   |   |   |
| F: Ethylene Propylene               |                    |     |   |   |   |   |
| Pressure Connection                 |                    |     |   |   |   |   |
| 1: 1/4 - 18 NPT (External Threads)  |                    |     |   |   |   |   |
| 2: 3/8 - 24 UNF-2A (Male)           |                    |     |   |   |   |   |
| 4: 1/8 - 27 NPT                     |                    |     |   |   |   |   |
| Built-in Electrical Connection      |                    |     |   |   |   |   |
| A: Packard with Mating Connector    |                    |     |   |   |   |   |
| B: 12", 18 AWG Leads                |                    |     |   |   |   |   |
| C: Packard without Mating Connector |                    |     |   |   |   |   |



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