

# ***P350***

## ***Water Level & Pump Pressure Transducers***

### ***Typical Applications***

- Water Tower Levels
- Waste Water Systems
- Compressed Air Systems
- Central Tire Inflation Systems
- Plant Automation Equipment

### ***Standard Full Scale Pressure Ranges***

0-5, 10, 15, 30, 50, 75, 100  
and 150 PSIA, PSIG

### ***Features***

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



### ***Description***

The model P350 is based on Kavlico's field-proven ceramic capacitive technology. The lightweight Valox® housing surrounds a low-pressure transducer designed specifically for pressures between 5 PSI and 150 PSI. It is available in both gage and absolute references.

The P350 package has a built-in Metri-Pack 150, straight pin arrangement, electrical connector and a ¼ - 18 NPT pressure connection.

## Technical Specifications

Note: Performance Specifications with  $5\text{V} \pm 0.002\text{Vdc}$  supply at  $25^\circ\text{C}$

|                              |                                                                           |
|------------------------------|---------------------------------------------------------------------------|
| Pressure Ranges:             | 0 – 5 PSI through 0 – 150 PSI<br>Gage or Absolute                         |
| Proof Pressure:              | 10x (5, 10 PSI), 3x (15, 30 PSI),<br>2x (50, 75 PSI), 1.5x (100, 150 PSI) |
| Burst Pressure:              | 150 PSI (5 PSI),<br>250 PSI (10 through 150 PSI)                          |
| Supply Voltage:              | 4.75 Vdc to 8 Vdc                                                         |
| Supply Current:              | 4 mA @ 5.00 Vdc, 5 mA (Max)                                               |
| Linearity Error:             | $\pm 0.5\%$ of Full Span Max.                                             |
| Response Time:               | 15ms Max to 63% of F.S. Pressure<br>with Step Change on Input             |
| Output Voltage               |                                                                           |
| Zero/Null Pressure:          | 0.50 $\pm 0.08\text{Vdc}$                                                 |
| Full Pressure:               | 4.50 $\pm 0.08\text{Vdc}$                                                 |
| Hysteresis and               |                                                                           |
| Repeatability Errors:        | $\pm 0.05\%$ Full Span (Max)                                              |
| Total Error Band:            | 2.0% of Span ( $-30^\circ\text{C}$ to $+100^\circ\text{C}$ )              |
| Output Impedance:            | $< 100\ \Omega$                                                           |
| Operating Temperature:       | $-30^\circ\text{C}$ to $+100^\circ\text{C}$                               |
| Storage Temperature:         | $-40^\circ\text{C}$ to $+125^\circ\text{C}$                               |
| Service Life:                | 10 Million Full Pressure Cycles                                           |
| Vibration:                   | 10G's P-P Sinusoidal, 10 -2000 Hz                                         |
| Shock:                       | 75 G's $\frac{1}{2}$ Sine Wave                                            |
| Stability:                   | $\pm 0.5\%$ of Full Span over 1-Year                                      |
| Humidity:                    | 99% Non Condensing                                                        |
| Weight:                      | 115 grams Max.                                                            |
| Electrical Termination:      | Metri-Pack 150 Series, Straight Pin<br>Arrangement, Electrical Connector  |
| Preferred Mounting Position: | None                                                                      |
| Pressure Connection:         | $\frac{1}{4}$ " -18 NPT                                                   |
| Output Load:                 | $> 25\text{k}\Omega$                                                      |
| Over-Voltage Protection:     | 16 Vdc                                                                    |
| Reverse Polarity Protection: | -5 Vdc                                                                    |



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.

## How to Order

### P350 Pressure Transducer

#### Pressure Range

|     |             |
|-----|-------------|
| 5   | 0 - 5 PSI   |
| 10  | 0 - 10 PSI  |
| 15  | 0 - 15 PSI  |
| 30  | 0 - 30 PSI  |
| 50  | 0 - 50 PSI  |
| 75  | 0 - 75 PSI  |
| 100 | 0 - 100 PSI |
| 150 | 0 - 150 PSI |

#### Reference

|   |          |
|---|----------|
| A | Absolute |
| G | Gage     |

#### Seal Material

|   |                      |                               |
|---|----------------------|-------------------------------|
| B | Buna-N (Nitrile)     | $-40$ to $+120^\circ\text{C}$ |
| C | Neoprene             | $-34$ to $+120^\circ\text{C}$ |
| D | Fluorocarbon (Viton) | $-17$ to $+120^\circ\text{C}$ |
| E | Fluorosilicone       | $-40$ to $+120^\circ\text{C}$ |

#### Pressure Connection

|   |                                             |
|---|---------------------------------------------|
| 1 | $\frac{1}{4}$ " - 18 NPT (External Threads) |
|---|---------------------------------------------|

#### Electrical Connection

|   |                                                             |
|---|-------------------------------------------------------------|
| A | With Mating Connector,<br>w/ $\frac{1}{2}$ " , 18 AWG Leads |
|---|-------------------------------------------------------------|

P350 - 5 - A - E - 1 - A

Example: P350 - 5 - A - E - 1 - A

Description: P350 Pressure Transducer, 0 - 5 PSIA (Absolute)  
with Fluorosilicone O-Ring,  
 $\frac{1}{4}$ " - 18 NPT Pressure Connection,  
and Mating Connector

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to meet your application-specific needs!

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