



# P61 Pressure Sensor

## Product Overview

The Pressure/Temperature MediaSensor™ (P61) family of bulk micromachined, absolute, and sealed pressure transducers and transmitters are for both harsh and benign media with superior accuracy.



## Typical Applications

- Refrigeration
- HVAC
- Fuel Cells
- Process Controls
- Agriculture
- Pumps
- Hydraulics
- Pneumatics

## Technical Specifications

Maximum Pressure

**3,000 PSI**

Accuracy

**< ± 1.00% FS**

Maximum Operating Temp.

**105 °C**

| Output Type                          | 0.5 - 4.5 V          | 1 - 5 V              | 4 - 20 mA            |
|--------------------------------------|----------------------|----------------------|----------------------|
| Accuracy 100-750 PSI (at 22 °C)      | < ± 0.50% FS         | < ± 0.50% FS         | < ± 0.50% FS         |
| Accuracy 751-3,000 PSI (at 22 °C)    | < ± 1.00% FS         | < ± 1.00% FS         | < ± 1.00% FS         |
| Temperature Error (-40 °C to 105 °C) | < ± 1.00% FS         | < ± 1.00% FS         | < ± 1.00% FS         |
| Zero Pressure Offset                 | 0.50 V               | 1.0 V                | 4.0 mA               |
| Full Scale Output (at Pressure FS)   | 4.50 V               | 5.0 V                | 20.0 mA              |
| Operating Temperature                | -40 °C to 105 °C     | -40 °C to 105 °C     | -40 °C to 105 °C     |
| Storage Temperature                  | -40 °C to 105 °C     | -40 °C to 105 °C     | -40 °C to 105 °C     |
| Proof Pressure                       | 3X FS                | 3X FS                | 3X FS                |
| Burst Pressure (lesser of the two)   | 10X FS or 15,000 PSI | 10X FS or 15,000 PSI | 10X FS or 15,000 PSI |

| Output Type                     | 0.5 - 4.5 V                  | 1 - 5 V                      | 4 - 20 mA      |
|---------------------------------|------------------------------|------------------------------|----------------|
| Supply Voltage                  | 5 ± 0.5 Volts                | 8 to 30 Volts                | 8 to 30 Volts  |
| Current Draw                    | < 6 mA                       | < 3 mA                       | Not Applicable |
| Output Type                     | 0.45 mA max (sink or source) | 0.45 mA max (sink or source) | Not Applicable |
| Response Time (Pressure/Output) | < 1 ms                       | < 1 ms                       | < 1 ms         |

| Parameter                   | Value              | Units  |
|-----------------------------|--------------------|--------|
| Pressure/Temperature Cycles | $> 10 \times 10^6$ | Cycles |
| Thermal Shock               | 250                | Cycles |
| Vibration                   | 4                  | Hours  |
| EMC Compatibility           | 10                 | V/m    |
| Humidity                    | 250                | Hours  |
| Weight                      | $\leq 0.3$         | Grams  |

## Chemical Compatibilities

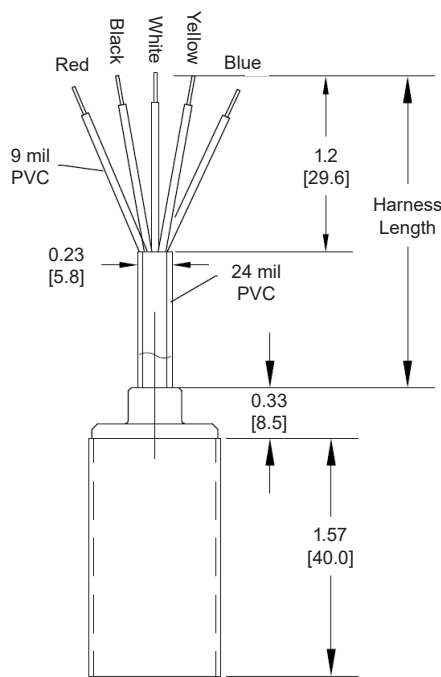
Any gas or liquid compatible with 304L and 316L stainless steel. (Including but not limited to motor oil, diesel, hydraulic fluid, brake fluid, water, wastewater, hydrogen, nitrogen, and air.) Designed to be used in media isolated mediums.

## Agency Approvals & Certifications

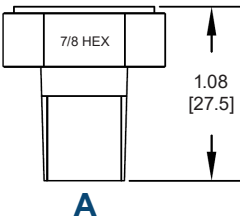


## Dimensional Drawings

**Harness**



**Ports**



| Wire Color | 0.5-4.5 V          | 20 mA           |
|------------|--------------------|-----------------|
| Red        | $V_{in} (5+/-0.1)$ | $V_{in} (8-30)$ |
| Black      | GND                | NA              |
| White      | $V_{out}$          | GND             |
| Yellow     | Thermistor         | Thermistor      |
| Blue       | Thermistor         | Thermistor      |

| Measurement Units |   |             |
|-------------------|---|-------------|
| 0.00              | = | Inches      |
| [00.0]            | = | Millimeters |

# P61 MediaSensor™ Ordering System

**P61 - 500 - A - A - I6 - 4.5 V - A**

## Family

## Full Scale

Pressure (100 - 3,000 PSI)

## Pressure Type

**A** = Absolute (100 - 3,000 PSI)

**S** = Sealed Gauge (100 - 3,000 PSI)

## Port Configuration

**304L**

A

### Hex

7/8"

**Port**

1/4 NPT

## Harness

## 24 Gauge Harness (Inner PVC: 16 mil)

- **I12** = 12"
- **I18** = 18"
- **I24** = 24"
- **I36** = 36"
- **I72** = 72"

\*Other lengths available - contact factory.  
MOQ's will apply.

## Output Options

**4.5 V** = 0.5 - 4.5 V (5 V input only)

**5 V** = 1 - 5 V (8 to 30 V input only)

**20 mA** = 4 - 20 mA (8 to 30 V input only)

### Temperature Options (NTC Thermistor)

A = 10 kohm at 25 °C  
B = 100 kohm at 25 °C  
C = 5 kohm at 25 °C

# Contact

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## Warranty

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**Note:** Specs are subject to change without notice.