Model 209
OEM Pressure Transducer

The Model 209 pressure transducer is designed for Industrial and OEM customers who require high performance, reliability and versatility at an affordable price. It offers exceptional ±0.25% FS accuracy with pressure ranges from 1 PSI up to 10,000 PSI to meet a multitude of demanding applications. The 209 features all stainless steel wetted materials and offers many pressure and electrical connections to satisfy challenging installation requirements. The 209 features a patented overpressure stop to protect the sensor against unexpected spikes or in high pulsation applications.

**True Low Range Sensor**
The Model 209's capacitive transducer is designed for industrial applications with demanding price and performance requirements. The Model 209 offers exceptional reliability in typical industrial grade environments. The true low range sensor design offers high performance with no additional amplification required to meet range requirements down to 1 PSI.

**Flexibility for Many Applications**
The 209 transducer offers many pressure and electrical fittings covering many installation configurations. It minimizes additional engineering time to accommodate the sensor, allowing for earlier project completion and quicker time to market.

**Robust Design & Construction for Reliable Service**
The Model 209 is designed and built to withstand demanding applications. The industrial construction, with optional positive overpressure stop, enables the sensor to withstand overpressure conditions up to 16X the rated range.

- **Rugged For Demanding Applications**
- **Full Span Ranges Down to 1 PSI**
- **Highly Configurable Design**

**Model 209 Features:**

- High Overpressure Option Available on Select Ranges
- Operates Over a Wide Temperature Band
- Compatible w/ a Variety of Gases & Liquids
- Operates on Low Cost Unregulated DC Power
- Suitable For High Shock & Vibration Applications
- No Seals or O-Rings to Cause Leakage
- No Brazed Joints Susceptible to Corrosion Problems
- CE & RoHS Compliant

**Applications:**

- Industrial OEM Equipment
- Hydraulic Systems
- Compressor Control
- HVAC/R Equipment
- Industrial Engines
Model 209
OEM Pressure Transducer

DIMENSIONS

CONDUIT VERSION

CABLE ANCHOR

OPTIONAL HIRSCHMANN CONNECTOR
Type: G4A1M #931807-106

OPTIONAL 3-Pin PACKARD CONNECTOR
Type: P2S Series 150

Top View
Mating Hirschmann Connector G4WIF available. See table below to order.

Top View
Mating Packard Connectors available. See table below to order.
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OEM Pressure Transducer

WIRING

CABLE ANCHOR

Voltage Output
The Model 209 voltage output is a 3-wire circuit. If the 209 is supplied with 2 feet of cable, the electrical connection is as follows:

Current Output
The Model 209 True 2-wire device. If the 209 is supplied with 2 feet of cable, the electrical connection is as follows:

3-PIN PACKARD CONNECTOR

HIRSCHMANN CONNECTOR

4-PIN PACKARD CONNECTOR

CONDUIT VERSION
## GENERAL SPECIFICATIONS

### Performance Data

- **Accuracy RSS1 (at constant temp)**: ±0.25% FS
- **Non-Linearity, BFSL**: ±0.22% FS
- **Hysteresis**: 0.10% FS
- **Non-Repeatability**: 0.05% FS
- **Thermal Effects**
  - **Compensated Range °F (°C)**: -4 to +176 (-20 to +80)
  - **Zero Shift %FS/100°F (%FS/50°C)**: ±2.0 (±1.8)
  - **Span Shift %FS/100°F (%FS/50°C)**: ±1.5 (±1.3)
- **Electrical Data (Voltage)**
  - **Warm-up Shift**: 0.1% FS Total
  - **Response Time**: 5 milliseconds
  - **Long Term Stability**: 0.5% FS/1 YR
- **Pressure Media**
  - **Zero Shift factory set to within ±0.16mA. Span (Full Scale) output factory set to within ±0.16mA.**
- **Specifications subject to change without notice.**

### Environmental Data

- **Operating Temperature °F (°C)**: -40 to +185 (-40 to +85)
- **Storage Temperature °F (°C)**: -40 to +185 (-40 to +85)
- **Shock**: 200g-operating
- **Vibration**: 20g
- **Environmental Protection**: Weather Resistant

### Electrical Data (Voltage)

- **Circuit**: 3-Wire (COM, OUT, EXC)
- **Excitation**: 9 to 30 VDC
- **Output**: 0.5 to 5.5 VDC
- **Pressure Media**
  - **Output Impedance**: 10 ohms

### Electrical Data (Current)

- **Circuit**: 2-Wire
- **Case**: Stainless Steel & Valox
- **Minimum supply voltage (VDC)**: 9+0.02 x (Resistance of receiver plus line)
- **Maximum supply voltage (VDC)**: 30+0.004 x (Resistance of receiver plus line).

### Physical Description

- **Case**: Stainless Steel & Valox
- **Wetted Material**: 17-4 PH Stainless Steel
- **External Load**: 0 to 800 ohms
- **Electrical Connection**: 2 ft. multiconductor cable
- **Pressure Fitting**: 1/4” NPT external, 17-4 PH Stainless Steel
- **Vest**: Through cable

### Model Range Code

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### ACCESSORIES

- **577**: 3-Pin Mating Packard Kit
- **581**: 3 Ft Mating Cable Accessories
- **582**: 6 Ft Mating Cable Accessories
- **590**: Mating Hirschmann Kit
- **857**: 4-Pin Mating Packard Kit

### PROOF PRESSURE

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### Accessories

- **577**: 3-Pin Mating Packard Kit
- **581**: 3 Ft Mating Cable Accessories
- **582**: 6 Ft Mating Cable Accessories
- **590**: Mating Hirschmann Kit
- **857**: 4-Pin Mating Packard Kit