

60CP SERIES | CERAMIC CAPACITIVE PRESSURE SENSOR

5VDC Supply, Ratiometric Output

Description

The 60CP series pressure sensors are ideally suited for environmentally demanding industrial applications. Using a 5.0 V excitation input, the 60 series sensors provides a .5-4.5 V signal ratiometric output proportional to pressure. This design requires no end user amplification. Several housing options are available.

Sensata Technologies has been a leading global supplier of pressure sensors and switches for over 50 years.



Features

- Enhanced accuracy over wide operating range
- Housing options are compatible with most media
- EMC protection to 100 V/m
- Broad operating temperature range (-40°C to 135°C)
- Exceptional shake and vibration tolerance
- Overvoltage and reverse polarity protection
- Small size and simple installation

Applications

- Compressors & pumps
- Hydraulics & pneumatics
- Agriculture & construction equipment
- Transportation & off-road vehicles
- Engine controls & monitors
- Alternative energy management
- Load management
- Process control & automation
- Medical
- Military



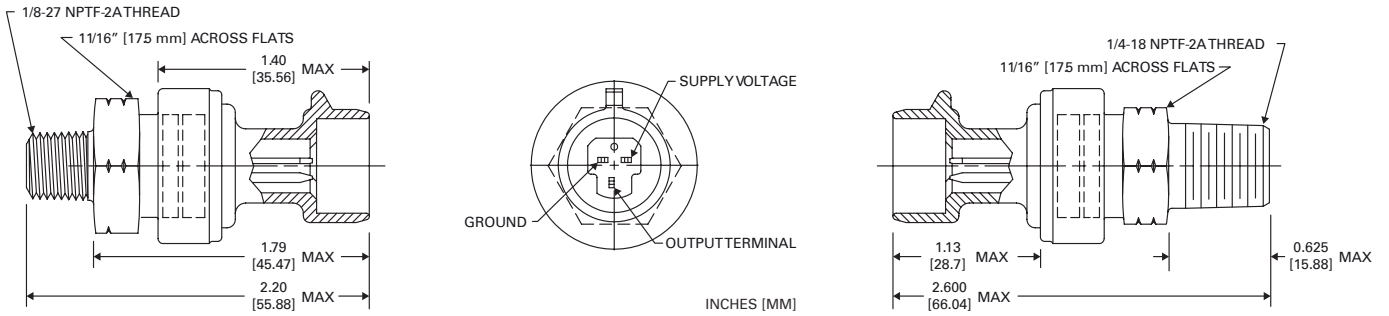
PERFORMANCE CHARACTERISTICS

| | |
|------------------------------|---|
| Pressure Ranges | 0 to 15, 50, 100, 150, 250, 500 psi 0 to 750 psi |
| Accuracy | ±0.8% F.S. (linearity, hysteresis, repeatability and calibration) Static error band @ 25°C, 5.0VDC |
| Total Error Band | ±1.0% (-20°C to +85°C) ±1.5% (-40°C to +125°C) |
| Operating Temperature | -40°C to +135°C |
| Storage Temperature | -40°C to +150°C |
| Proof Pressure | 5X 15 to 75 psi, 3X 100 to 300 psi, 2X 500 psi, 1.5X 750psi |

| | |
|--------------------------------|---|
| Burst Pressure | 1700 psi |
| Cycle Life | 15 to 500 psi = 10M F.S. cycles 750 psi = 5M F.S. cycles |
| Random Vibration | 11g (50 to 2000 Hz) |
| Mechanical Shock | 100g (6 Hz, ½ sine) |
| Drop (any Axis) | 1.5m |
| Electrical Connection | Nema 4X, IP65 |
| Supply Voltage | 4.5 to 5.5 VDC |
| Output Voltage | 0.5 to 4.5 VDC |
| Supply Current | 7 mA (max @ 5.5 VDC no load) |
| Output Current | 2.5 mA (max sinked or source) |
| Output Load | 2K ohms minimum |
| Output Response Time | 10mS max |
| Overvoltage Protection | 16.5 VDC |
| Reverse Voltage | -14 VDC |
| Short Circuit Protected | Yes |
| EMC (1MHz to 512 MHz) | 100 V/m |
| ESD (CDF-AEC-Q100-002) | 15 kV |

DIMENSIONAL DRAWINGS (61CP02 & 67CP03)

Dimensions in mm [Inch]

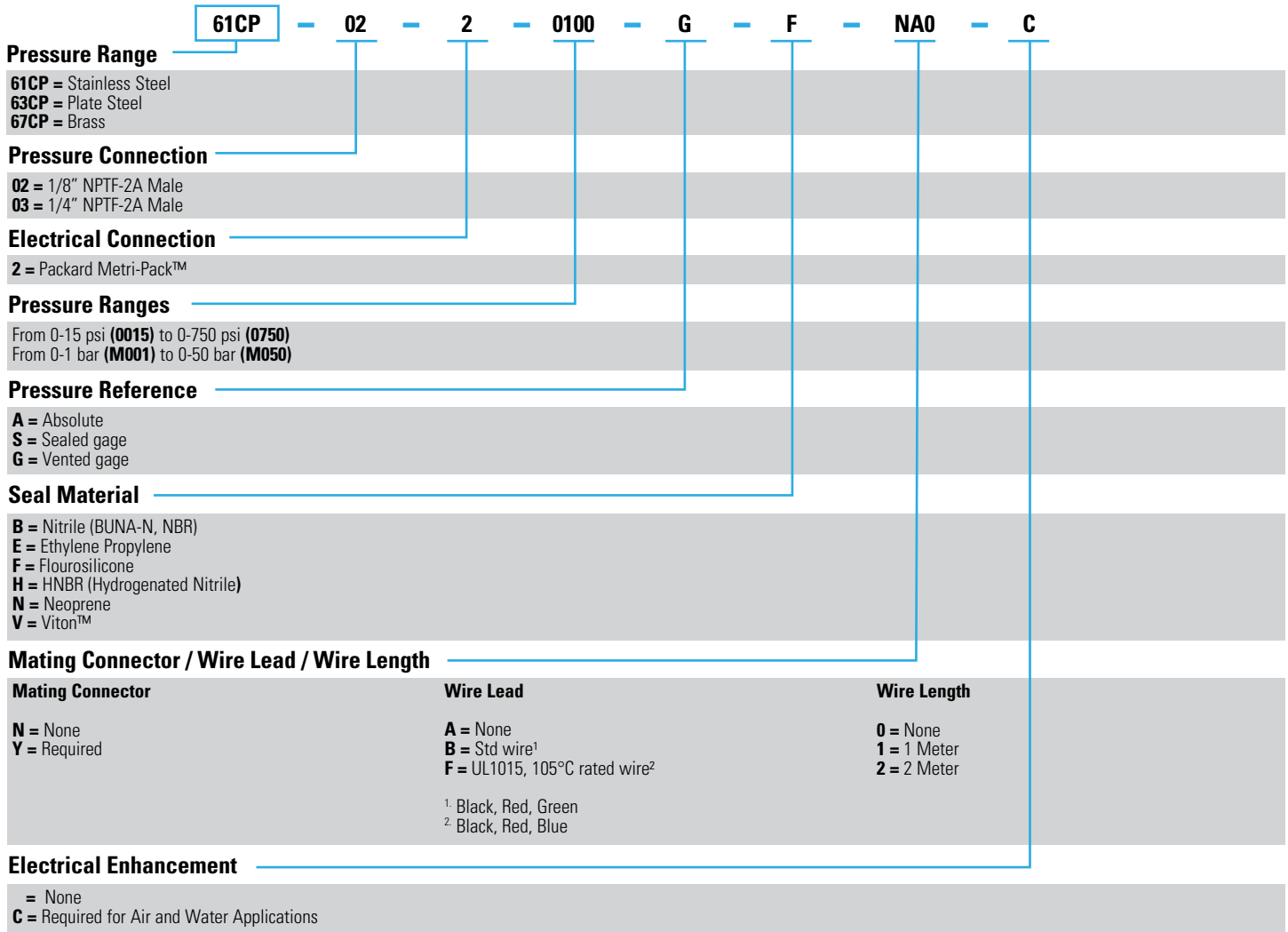


AGENCY APPROVALS & CERTIFICATES





Stainless Steel, 1/8" NPTF-2A Male, Packard Metri-Pack™, Vented Gage, Fluorosilicone, 4 to 20 mA, Required for Air and Water Application



Seal Compatibility Guide

| Seal Material | Media Compatibility | Max Seal Temperature Range |
|-----------------------------|---|----------------------------|
| Nitrile (BUNA-N, NBR) | Petroleum oils, lubricants, detergent solutions, helium | -20°C to 100°C |
| HNBR (Hydrogenated Nitrile) | Petroleum oils, lubricants, detergent solutions | -20°C to +135°C |
| Ethylene Propylene | Steam, soaps, polar solvents, brake fluids, acetone, Skydrol™ | -40°C to +135°C |

| Seal Material | Media Compatibility | Max Seal Temperature Range |
|-----------------------|--|----------------------------|
| Fluorosilicone | Chlorinated solvents, oils, fuels, air | -40°C to +135°C |
| Neoprene | Refrigerants (freons/ammonia) | -40°C to +120°C |
| Fluorocarbon (Viton™) | Fertilizers, freons, butanes, oils, trichlorethylene | -35°C to +135°C |

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