

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



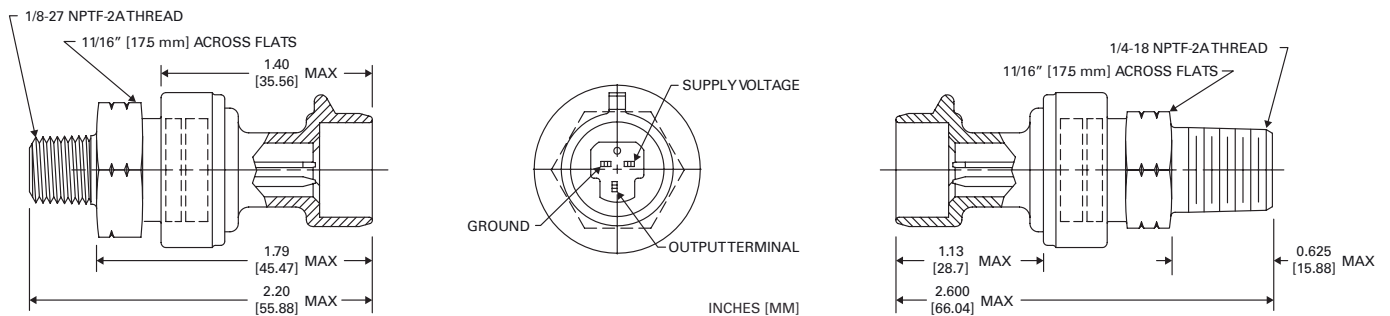
PERFORMANCE CHARACTERISTICS

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]

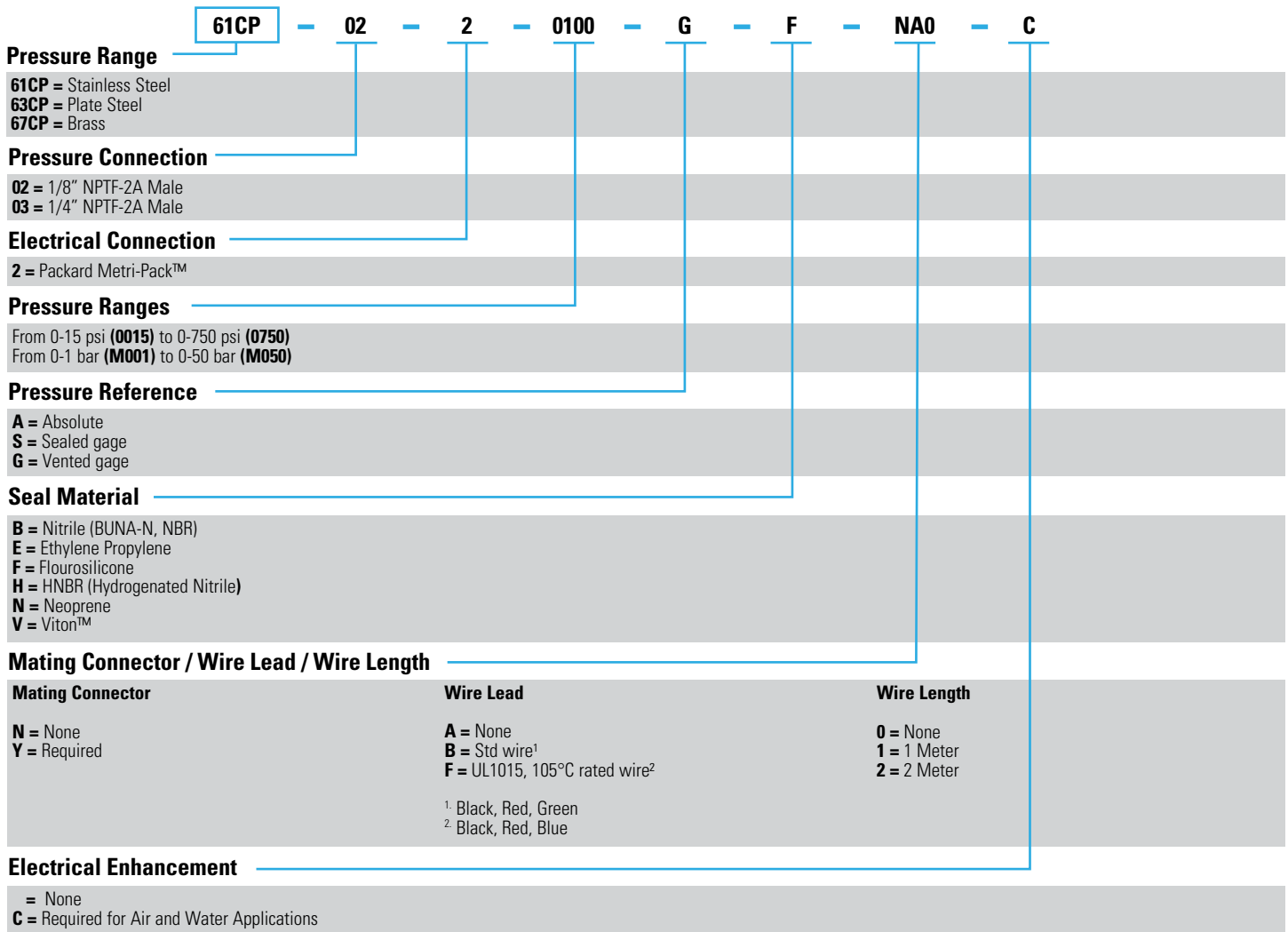


AGENCY APPROVALS & CERTIFICATES





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

Revised 02/06/18

Sensata Technologies, Inc. ("Sensata") data sheets are solely intended to assist designers ("Buyers") who are developing systems that incorporate Sensata products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, evaluation and judgment in designing Buyer's systems and products. Sensata data sheets have been created using standard laboratory conditions and engineering practices. Sensata has not conducted any testing other than that specifically described in the published documentation for a particular data sheet. Sensata may make corrections, enhancements, improvements and other changes to its data sheets or components without notice.

Buyers are authorized to use Sensata data sheets with the Sensata component(s) identified in each particular data sheet. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER SENSATA INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN. SENSATA DATA SHEETS ARE PROVIDED "AS IS". SENSATA MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE DATA SHEETS OR USE OF THE DATA SHEETS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. SENSATA DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO SENSATA DATA SHEETS OR USE THEREOF.

All products are sold subject to Sensata's terms and conditions of sale supplied at www.sensata.com. SENSATA ASSUMES NO LIABILITY FOR APPLICATIONS ASSISTANCE OR THE DESIGN OF BUYERS' PRODUCTS. BUYER ACKNOWLEDGES AND AGREES THAT IT IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH ALL LEGAL, REGULATORY AND SAFETY-RELATED REQUIREMENTS CONCERNING ITS PRODUCTS, AND ANY USE OF SENSATA COMPONENTS IN ITS APPLICATIONS, NOTWITHSTANDING ANY APPLICATIONS-RELATED INFORMATION OR SUPPORT THAT MAY BE PROVIDED BY SENSATA.

Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA.

CONTACT US

Americas

+1 (800) 350 2727

sensors@sensata.com

switches@sensata.com

Europe, Middle East & Africa

+359 (2) 809 1826

pressure-info.eu@sensata.com

Asia Pacific

sales.isasia@list.sensata.com

China +86 (21) 2306 1500

Japan +81 (45) 277 7117

Korea +82 (31) 601 2004

India +91 (80) 67920890

Rest of Asia +886 (2) 27602006
ext 2808