

70CP SERIES | CERAMIC CAPACITIVE PRESSURE SENSOR

6 to 30 VDC Supply, 4 to 20 mA or Voltage Output

Description

The 70CP series pressure sensors are ideally suited for environmentally demanding OEM industrial applications. This series accommodates a wide range of input voltages (6 to 30 VDC) and provides several output options, including 4 to 20 mA. Housed in stainless steel, plated steel or brass, the 70CP series offers performance and economy.

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

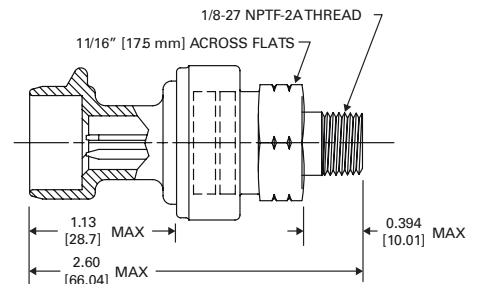
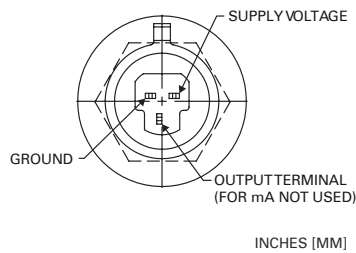
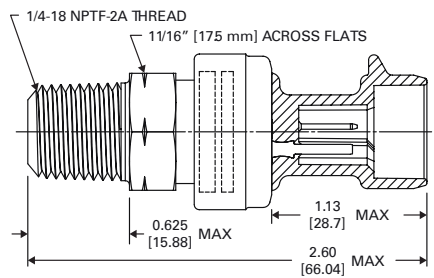
PERFORMANCE CHARACTERISTICS

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)
Total Error Band	±1.5% F.S. (0°C to +85°C)
Operating Temperature	-40°C to +125°C
Storage Temperature	-40°C to +150°C
Proof Pressure	5X 15 to 75 psi, 3X 100 to 250 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	10g (50 to 2000 Hz)

Mechanical Shock	100g (6 Hz, ½ sine)
Drop (any Axis)	1.5m
Supply Voltage	6 to 30 VDC
Output	Current Output: 4 to 20 mA Voltage Output: 1 to 4 VDC or 1 to 4.9 VDC
Output Load, Voltage Current	10K ohms
Output Load, Current Current	$(V_s^* - 6) / 0.02$ ohms
Overvoltage Protection	40 VDC
Reverse Voltage Protection	-40 VDC
Output Response Time	10mS max
Short Circuit Protected	Yes
EMC (512 MHz to 1GHz)	100 V/m
EMC (1MHz to 512 MHz)	50 V/m
4 to 20 mA Version	30 V/m
ESD (CDF-AEC-Q100-002)	15 kV

DIMENSIONAL DRAWINGS (71CP03 & 77CP02)

Dimensions in mm [Inch]



AGENCY APPROVALS & CERTIFICATES

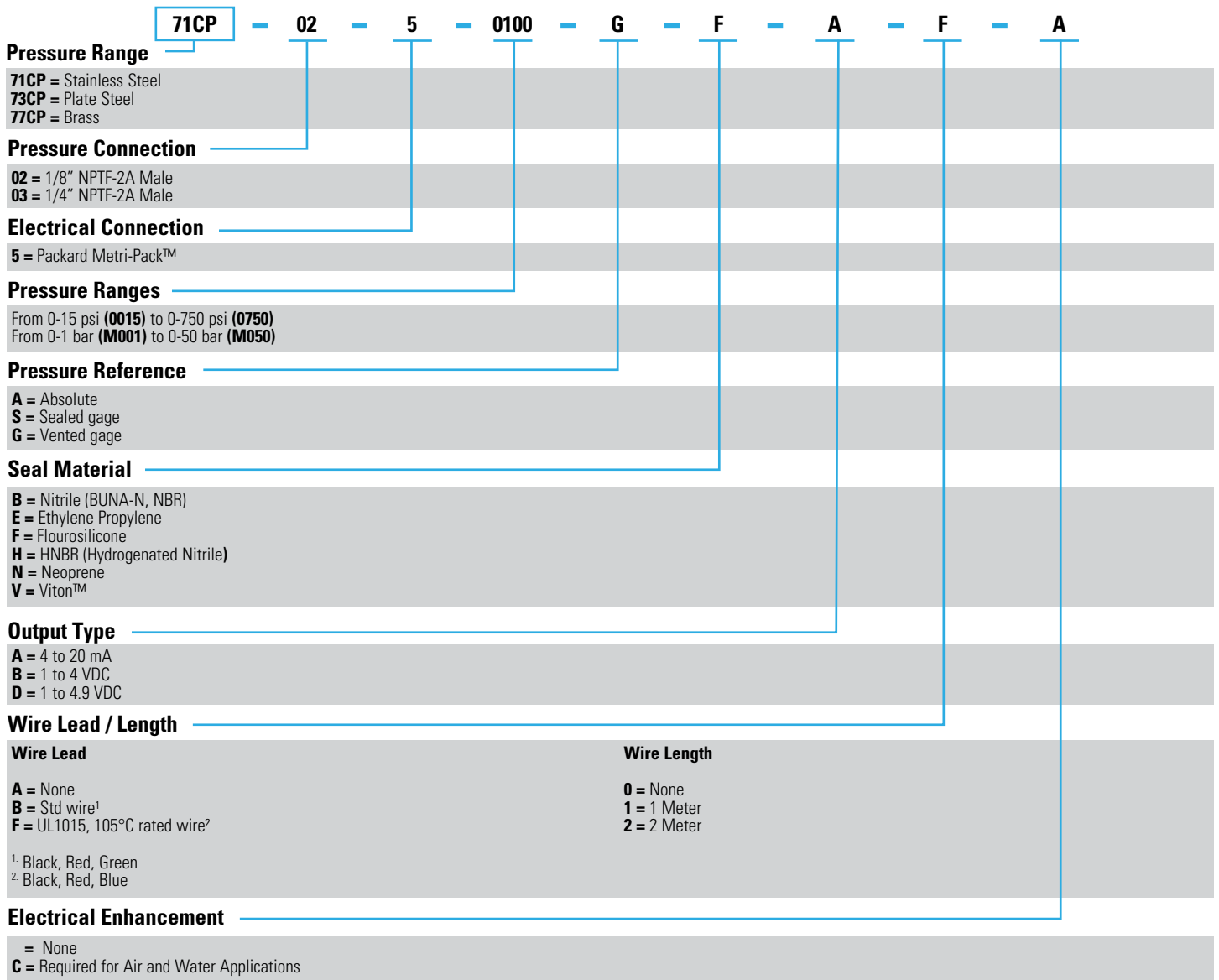




ORDERING OPTIONS

Example : 71CP 02 5 0100 G F A F A C

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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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



CONTACT US



industrie@jbcontrols.com



+33(0)1 46 91 93 30



<https://jbcontrols.com/>



JB Controls

59 Rue Emile Deschanel
92400 COURBEVOIE,
France

