



112CP SERIES

Combined Pressure & Temperature Sensor

DESCRIPTION

The 112CP series combined pressure and temperature sensors delivers the benefit of both pressure and in-stream temperature sensing in a single, robust integrated package.

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

FEATURES

- Pressure and temperature measurement in one package
- Fast, in-stream temperature measurement
- Precise superheat measurement

APPLICATIONS

- Air conditioning & refrigeration
- Alternative energy management
- Engine controls & monitors
- Compressors & pumps

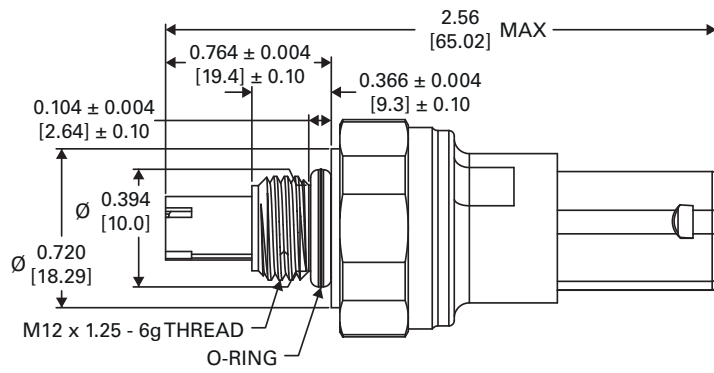
PERFORMANCE CHARACTERISTICS

Pressure Ranges	0 to 150 psi through 0 to 650 psi
Pressure Accuracy	±0.8% F.S. (linearity, hysteresis, repeatability and calibration)
Total Error Band	±1.7% F.S. (0°C to +85°C)
Proof Pressure	≥ 2X
Burst Pressure	≥ 3X
Temperature Accuracy	±1% (delta R/R)
Resistance @ 25°C	10K or 100 ohms
Operating Temperature	-40°C to 135°C
Supply Voltage (V_{cc})	4.5 to 5.5 VDC
Output Voltage	0.5 to 4.5 VDC
Supply Current	15.0 mA
Output Current	8.0 mA
Output Load Range	10K to 50K ohms
Overvoltage Protection	16 VDC
Reverse Voltage Protection	-14 VDC
Output Response Time	10mS
Cycle Life	≥ 1M cycles
Vibration	5g
Drop (any Axis)	1m
Electrical Connection	4 pin AMP Micro-Quadlok System™ connector
Weight	1.5 oz max
Approvals	RoHS, REACH available

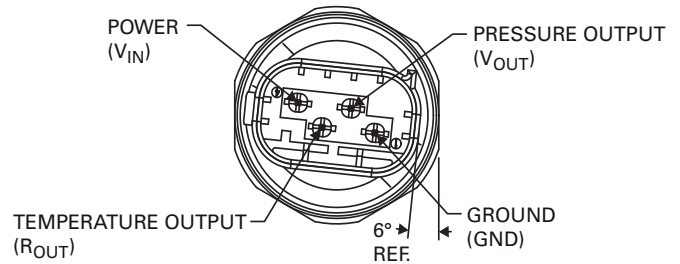
*Refer to chart for seal compatibility

NOTE: Not suitable for use in conductive media
Micro-Quadlok System is a trademark of Tyco Electronics Corporation

DIMENSIONAL DRAWINGS



INCHES [MM]



STANDARD OFFERINGS

Pressure Connections

M12 x 1.25 - 6g plated steel
1/4" NPT male brass

Pressure References

Absolute
Sealed gage

Pressure Ranges

9.0 to 150 psia
26.8 to 500 psia

Elastomer Seals

See Seal Compatibility Guide

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
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

STANDARD PART NUMBERS

Part Number	Pressure	Pressure Connection	Thermistor	Internal Seal	Thread O-Ring
112CP3-4	9 to 149 psia	M12 x 1.25 - 6g plated steel	10k Ohm @ 25°C	Neoprene	Neoprene
112CP3-6	9 to 149 psia	1/4" NPT male brass	10k Ohm @ 25°C	Nitrile	—
112CP3-8	9 to 500 psia	M12 x 1.25 - 6g plated steel	10k Ohm @ 25°C	Neoprene	Neoprene
112CP3-9	9 to 500 psia	1/4" NPT male brass	10k Ohm @ 25°C	Nitrile	—



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