

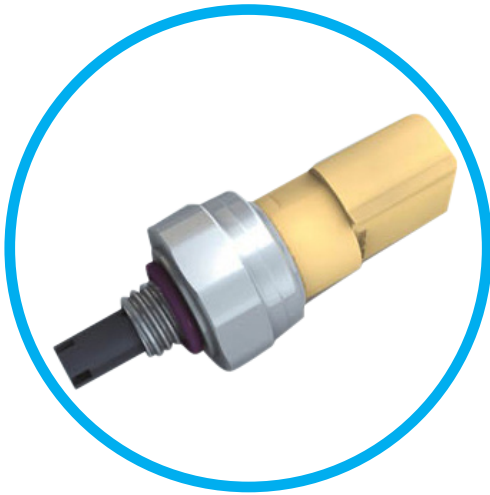
## | 112CP SERIES

Combined Pressure & Temperature Sensor

### Introduction

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

## SPECIFICATIONS

<b>Pressure Ranges</b>	0 to 150 psi through 0 to 650 psi
<b>Pressure Accuracy</b>	±0.8% F.S. (linearity, hysteresis, repeatability and calibration)
<b>Total Error Band</b>	±1.7% F.S. (0°C to +85°C)
<b>Proof Pressure</b>	≥ 2X
<b>Burst Pressure</b>	≥ 3X
<b>Temperature Accuracy</b>	±1% (delta R/R)
<b>Resistance @ 25°C</b>	10K or 100 ohms
<b>Operating Temperature</b>	-40°C to 135°C
<b>Supply Voltage (VCC)</b>	4.5 to 5.5 VDC
<b>Output Voltage</b>	0.5 to 4.5 VDC
<b>Supply Current</b>	0.5 to 4.5 VDC
<b>Output Current</b>	8.0 mA
<b>Output Load Range</b>	10K to 50K ohms
<b>Overvoltage Protection</b>	16 VDC
<b>Reverse Voltage Protection</b>	-14 VDC
<b>Output Response Time</b>	10mS

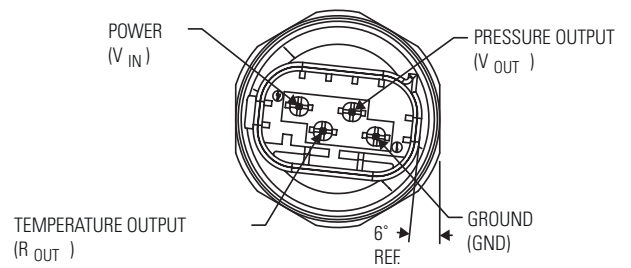
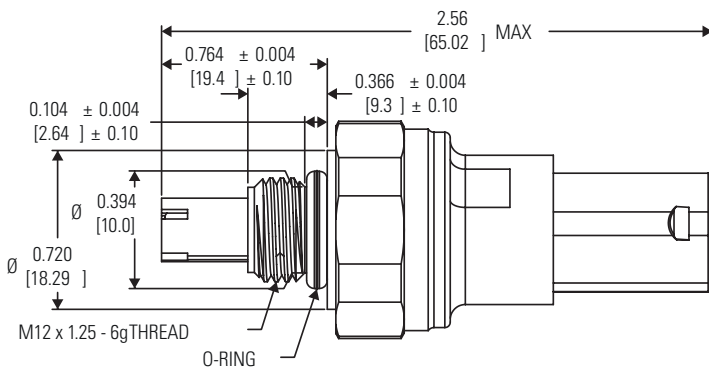
<b>Cycle Life</b>	≥ 1M cycles
<b>Vibration</b>	5g
<b>Drop (any Axis)</b>	1m
<b>Electrical Connection</b>	4 pin AMP Micro-Quadlok System™ connector
<b>Weight</b>	1.5 oz max

\*Refer to chart for seal compatibility

NOTE: Not suitable for use in conductive media

Micro-Quadlok System is a trademark of Tyco Electronics Corporation

## DIMENSIONS



## 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



## ORDERING OPTIONS

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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