



## 112CP Series

### Combined Pressure/Temperature Sensor

#### WORLD CLASS PERFORMANCE

The 112CP series combined pressure/temperature sensor 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 & switches for over 50 years.

#### Features & Benefits

- Both 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

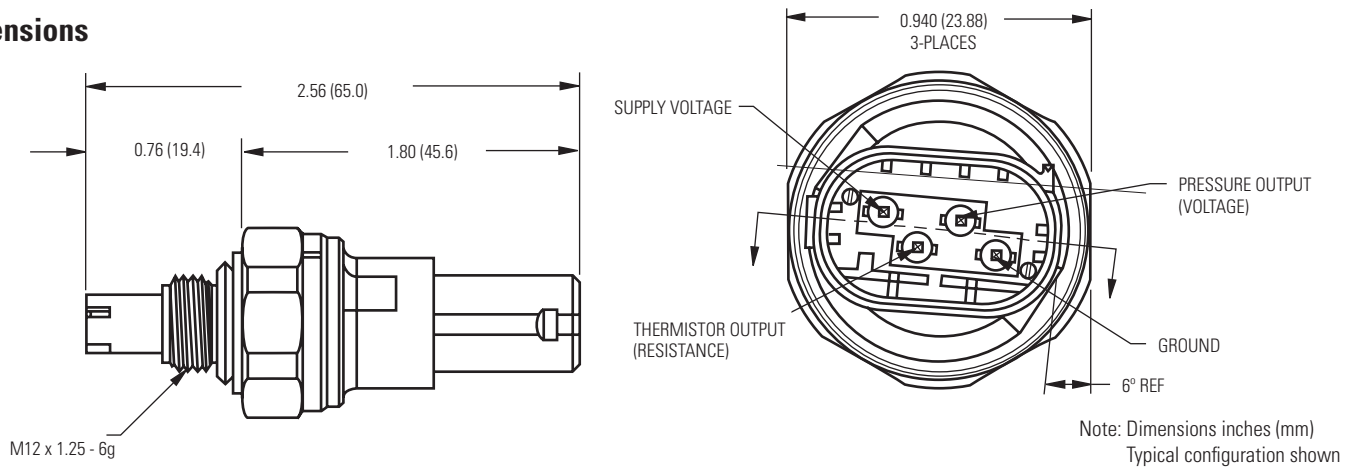
#### Technical Specifications

<b>Pressure Ranges</b> 0-150 psi through 0-650 psi See reverse for standards	<b>Physical</b> Proof Pressure..... $\geq 2X$ Burst Pressure ..... $\geq 3X$ Cycle Life ..... $\geq 1$ M Cycles Vibration ..... 5g Drop ..... 1 m any axis Electrical Connection .... 4 pin AMP Micro-Quadlok System™ connector
<b>Performance (pressure)</b> Accuracy: ..... $\pm 0.75\%$ span (linearity, hysteresis, repeatability) Temperature (nominal)..... $\pm 0.16\%$ span/ $^{\circ}C$	Weight ..... 1.5 oz. max
<b>Performance (temperature)</b> Accuracy: ..... $\pm 1\%$ (delta R/R) Resistance @ 25 $^{\circ}C$ ..... 10K or 100 $\Omega$ Operating Temperature* ..... -40 $^{\circ}C$ to 135 $^{\circ}C$	
<b>Electrical</b> Supply Voltage (Vcc) ..... 4.5 to 5.5 Vdc Output Voltage ..... 0.5 to 4.5 Vdc typical Supply Current ..... 15.0 mA max Output Current ..... 8.0 mA Output Load Range..... 10K-50K $\Omega$ Output Response Time ..... 10 mS Overvoltage Protection ..... 16 Vdc Reverse Voltage ..... -14 Vdc	* Refer to chart for seal compatibility Micro-Quadlok System is a trademark of Tyco Electronics Corp.

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### Dimensions



### Standard Offerings

#### Pressure Connections

- M12 x 1.25 - 6g plated steel
- 1/4" NPT male brass  
(For other pressure connections please contact Sensata)

#### Pressure Ranges

- 0-150 psia
- 0-500 psia  
(For other pressure ranges please contact Sensata)

#### Pressure References

- Absolute
- Sealed gage

#### Elastomer Seals

See Seal Compatibility Guide

### Seal Compatibility Guide

Type	Maximum Seal Temperature Range	Media Compatibility Contact Sensata for more information	Seal Material
H	-20°C to +135°C	Refrigerants, petroleum oils, lubricants, detergent solutions	HNBR (Hydrogenated Nitrile)
N	-40°C to +120°C	Refrigerants (freons, ammonia)	Neoprene
V	-26°C to +135°C	Fertilizers, freons, butanes, oils, trichloroethylene	Fluorocarbon (Viton™)
B	-20°C to +100°C	Petroleum oils, lubricants, detergent solutions	Nitrile (BUNN, NBR)
E	-40°C to +135°C	Steam, soaps, polar solvents, brake fluid, acetone, Skydrol™	Ethylene Propylene
F	-45°C to +135°C	Chlorinated solvents, oils, fuels, air	Fluorosilicone

Viton™ is a trademark of E.I. deNemours Co. (only available as an internal gasket)  
Skydrol™ is a trademark of Monsanto Co.

### Standards

Part Number	Pressure	Pressure Connection	Thermistor	Internal Seal	Thread O-ring
112CP3 - 4	9 - 149 psia	M12 x 1.25 - 6g plated steel	10k Ohm @ 25°C	Neoprene	Neoprene
112CP3 - 6	9 - 149 psia	1/4" NPT male brass	10k Ohm @ 25°C	Neoprene	—
112CP3 - 8	9 - 510 psia	M12 x 1.25 - 6g plated steel	10k Ohm @ 25°C	Neoprene	Neoprene
112CP3 - 9	9 - 510 psia	1/4" NPT male brass	10k Ohm @ 25°C	Neoprene	—



#### Sensata Technologies

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The World Depends on Sensors and Controls