



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

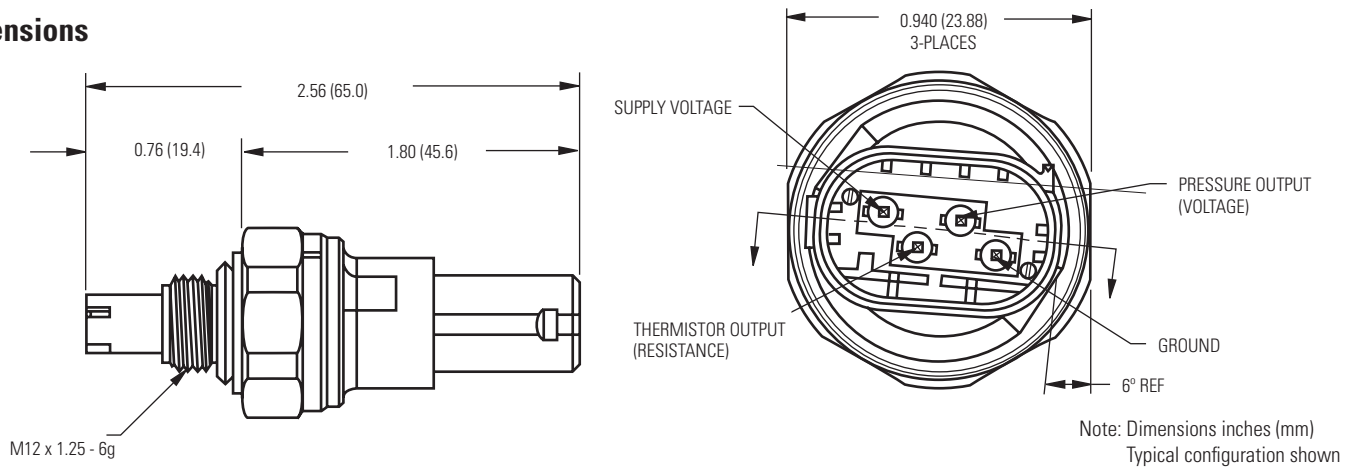
Technical Specifications

Pressure Ranges	Physical
0-150 psi through 0-650 psi See reverse for standards	Proof Pressure..... $\geq 2X$
Performance (pressure)	Burst Pressure $\geq 3X$
Accuracy: $\pm 0.75\%$ span (linearity, hysteresis, repeatability)	Cycle Life ≥ 1 M Cycles
Temperature (nominal)..... $\pm 0.16\%$ span/ $^{\circ}C$	Vibration 5g
Performance (temperature)	Drop 1 m any axis
Accuracy: $\pm 1\%$ (delta R/R)	Electrical Connection 4 pin AMP Micro-Quadlok System™ connector
Resistance @ 25 $^{\circ}C$ 10K or 100 Ω	Weight 1.5 oz. max
Operating Temperature* -40 $^{\circ}C$ to 135 $^{\circ}C$	
Electrical	
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 Ω	
Output Response Time 10 mS	
Overvoltage Protection 16 Vdc	* Refer to chart for seal compatibility
Reverse Voltage -14 Vdc	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	—



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The World Depends on Sensors and Controls