



2CP5/2CP50 Series HVAC/Refrigeration Pressure Sensor

WORLD CLASS PERFORMANCE

The 2CP5/2CP50 series is ideal for demanding Air Conditioning and Refrigeration applications where long-term reliability & accuracy is a must. This series provides proven reliability at a competitive price.

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

Features & Benefits

- UL recognized
- Ceramic capacitive sensor
- Durable, compact design
- Low cost
- Accurate performance over wide temperatures
- Overvoltage and short circuit protected

Applications

- Discharge and suction pressure monitoring
- Subcooling and superheat calculations
- Compressor oil pressure monitoring
- Condenser fan control
- Compressor staging and unloading
- Electronic expansion valve control
- Remote systems diagnostics and trending

Technical Specifications

Pressure Ranges

0-15 psi through 0-650 psi
Standards listed on reverse side
For non-standard device contact Sensata.

Performance

Accuracy: ±1.2% span
(linearity, hysteresis, repeatability, and calibration)
Temperature error ±0.013%/°C
Operating Temperature -40°C to 135°C

Physical

Proof Pressure..... 5X 15-75 psi
 3X 100-300 psi
 2X 500 + psi
Burst Pressure 2CP5 1500 psi (brass)
 2CP50 2500 psi (plated steel)
Cycle Life 10M F.S. cycles
Random Vibration 11g
(50-2000 Hz).
Drop (any Axis) 1.5m
Electrical Connection ... Nema 4X, IP65

Electrical

Supply Voltage (V_{in}) 4.5 to 5.5 Vdc
Output Voltage (V_{out})..... 0.5 to 4.5 Vdc typical
Supply Current 8 mA max
(Max @ 5.5Vdc with no load)
Output Current 2.5 mA
(Max sink or source)
Output Load 10K ohms typical
Output Response Time 10 mS
Overvoltage Protection 16 Vdc
Reverse Voltage -14 Vdc
Short Circuit Protected Yes
EMC (512MHz-1GHz) 25 V/m
EMC (10MHZ-512MHz) 50 V/m
ESD (CDF-AEC-Q100-002) 15k V

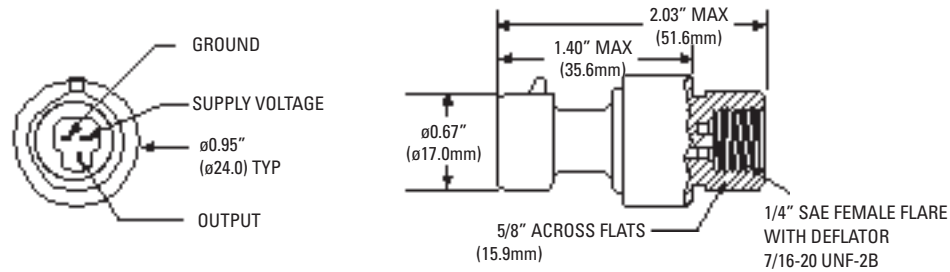
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UL recognized File # SA995

2CP5/2CP50 Series

HVAC/Refrigeration Pressure Sensor

Dimensions



Ordering Information

EXAMPLE	2CP5	S	05	2	XXXX	A	N	N
Series								
2CP5	(up to 500 psi)							
2CP50	(above 500 psi)							
Pressure Connection Material								
S	Plated Steel							
B	Brass							
Pressure Connection								
05	1/4" SAE Female flare with deflator, 7/16"-20 UNF-2B Consult Sensata for other pressure connections							
Electrical Connection								
2	Packard Metri-Pack (Mates with Packard # 12065287)							
Pressure Ranges								
	From 0-15 psi (0015) to 0-650 psi (0650) See "Standards" below							
Pressure Reference								
A	Absolute		S	Sealed gage		G	Gage	
Seal Material								
H	HNBR							
N	Neoprene							
	Please use refrigerant compatibility table for selection - others available upon request							
Connector Harness								
N	none required							
Y	Packard Wire Harness 1-meter standard wire For other options please contact Sensata							

Standards

	Sample Order Number	Production Number	Comments
1	2CP5B0520150ANN	2CP5-46	brass, 0-150 psia
2	2CP5B0520200ANN	2CP5-49	brass, 0-200 psia
3	2CP5B0520300SNN	2CP5-50	brass, 0-300 psis
4	2CP5B0520400SNN	2CP5-51	brass, 0-400 psis
5	2CP5B0520500SNN	2CP5-47	brass, 0-500 psis
6	2CP5S0520500SNN	2CP5-48	brass, 0-500 psis

Type	Refrigerant Compatibility	Seal Material	Maximum Seal Temperature Range
N	R12 R22 R134a R404a R407c R410a R502 R507	Neoprene*	-40C to 120°C
H	R134a R404a R407c R410a R507	HNBR (Hydrogenated Nitrile)*	-20°C to 135°C

* Seal selection also depends on oil type used.



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The World Depends on Sensors and Controls