Sensata Technologies

HVAC/REFRIGERATION PRESSURE SENSOR

2CP5/2CP50 Series

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 ..... ±0.6% F.S. Typ.
(linearity, hysterisis, repeatability, and calibration)

Total Error Band:
-40°C to +125°C ..... ±1.0% F.S. Typ.
-20°C to +85°C ..... ±0.8% F.S. Typ.
(Values are typical. Higher accuracies are possible, consult factory.)

Operating Temperature .....-40°C to 135°C

Storage Temperature ..... -40°C to 150°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) ..... 50 V/m

EMC (1MHZ-512MHz) .....100 V/m

ESD (CDF-AEC-Q100-002) ..... 15k V

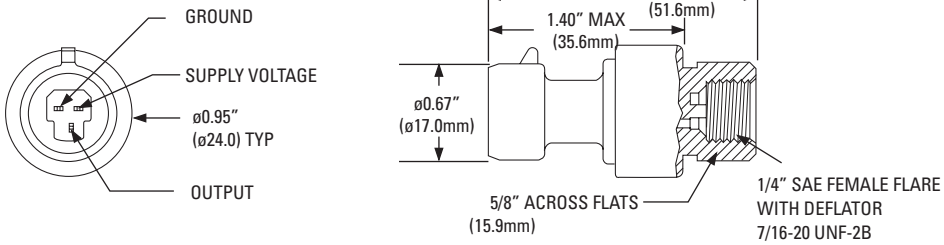
Agency

UL recognized File # SA995

HVAC/REFRIGERATION PRESSURE SENSOR

2CP5/2CP50 Series

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 rerquest

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 120ºC
H	R134a R404a R407c R410a R507	HNBR (Hydrogenated Nitrile)*	-20ºC to 135ºC

* Seal selection also depends on oil type used.

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Printed in U.S.A., Reprinted January, 2008