2CP5 & 2CP50 SERIES

HVAC/Refrigeration Pressure Sensor

Introduction

The 2CP series is ideal for demanding air conditioning and refrigeration applications where long-term reliability and accuracy is a must. The 2CP series provides proven reliability at a competitive price.

Sensata Technologies has been a leading global supplier of pressure sensors and switches for over 50 years. The 2CP has many options, consult the factory to customize a 2CP to meet your application's needs.

Features

- UL recognized
- Ceramic capacitive sensor
- Durable, compact, low-cost design
- 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

SPECIFICATIONS

Pressure Ranges	0 to 15 psi, through 0 to 750 psi
Accuracy	±0.8% F.S. (linearity, hysteresis, repeatability and calibration) Static error band @ 25°C, 5.0VDC
Total Error Band	±1.0% (-20°C to +85°C) ±1.5% (-40°C to +125°C)
Operating Temperature	-40°C to +135°C
Storage Temperature	40°C to +150°C
Proof Pressure	5X 15 to 75 psi, 3X 100 to 300 psi, 2X 500+ psi
Burst Pressure	2CP5 - 5x operating pressure 2CP50 - 3x operating pressure
Cycle Life	10M F.S. cycles
Random Vibration	11g (50 to 2000 Hz)
Drop (any Axis)	1.5m
Electrical Connection	Nema 4X, IP65

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Supply Voltage	4.5 to 5.5 VDC
Output Voltage	0.5 to 4.5 VDC typical
Supply Current	7 mA (max @ 5.5 VDC no load)
Output Current	2.5 mA (max sinked or source)
Output Load	10K ohms typical
Output Response Time	10mS
Overvoltage Protection	16 VDC
Reverse Voltage	-14 VDC
Short Circuit Protected	Yes
EMC (512MHz to 1 GHz)	50 V/m
EMC (1 MHz to 512 MHz)	100 V/m
ESD (CDF-AEC-Q100-002)	15 kV

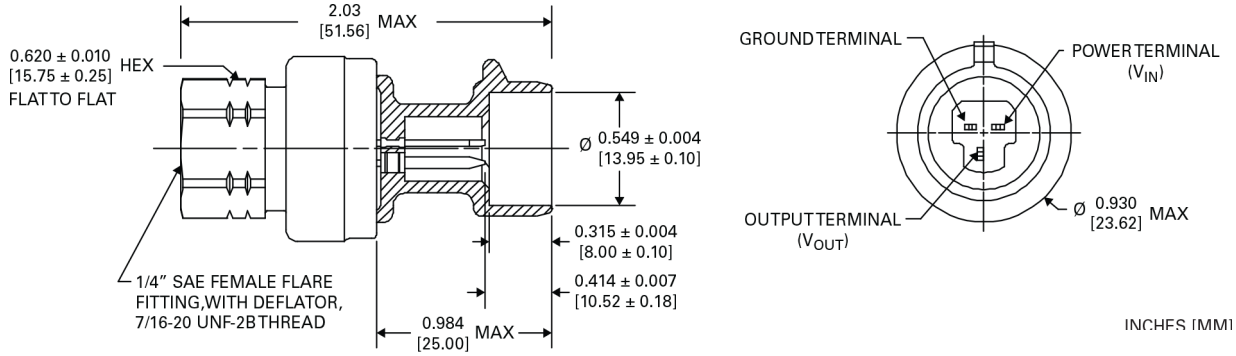
STANDARDS

Sample PN	Production PN	Description
2CP5B0520150ANN	2CP5-71-46	Brass, 0 to 150 psia
2CP5B0520200ANN	ANN 2CP5-71-49	Brass, 0 to 200 psia
2CP5B0520300SNN	NN 2CP5-71-50	Brass, 0 to 300 psis
2CP5B0520400SNN	N 2CP5-71-51	Brass, 0 to 400 psis
2CP5B0520500SNN	2CP5-71-47	Brass, 0 to 500 psis
2CP5S0520500SNN	2CP5-71-48	Steel, 0 to 500 psis

SEAL MATERIALS

Material	Refridgerant	Maximum Seal Temperature Range
HNBR (Hydrogenated Nitrile)	R134a, R404a, R407c, R410a, R507	-20°C to 135°C
Neoprene	R12, R22, R134a, R404a, R407c, R410a, R502, R507	-40°C to 120°C

DIMENSIONAL DRAWINGS



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ORDERING OPTIONS

Example : 2CP5-S-05-2-XXXX-A-N-N

2CP5 – S – 05 – 2 – XXXX – A – N – N

Pressure Range

2CP5 = Up to 500 psi
2CP50 = Above 500 psi

Pressure Connection Material

S = Plated steel
B = Brass (2CP5 only)

Pressure Connection

05 = 1/4" SAE female flare with deflator, 7/16"-20 UNF-2B

Electrical Connection

2 = Packard Metri-Pack (Mates with Packard # 12065287)

Connector Harness

N = None required
Y = Packard wire harness, 1 meter standard wire

Seal Material

H = HNBR (Hydrogenated Nitrile)
N = Neoprene

Pressure Reference

A = Absolute
S = Sealed gage
G = Vented gage

Pressure Ranges (see standards below)

From 0-15 psi (**0015**) to 0-750 psi (**0750**)
From 0-1 bar (**M001**) to 0-50 bar (**M050**)

AGENCY APPROVALS & CERTIFICATIONS

UL recognized file #SA995
RoHS, REACH available

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Поставка электронных компонентов

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