



## | 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

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
Overtoltage 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

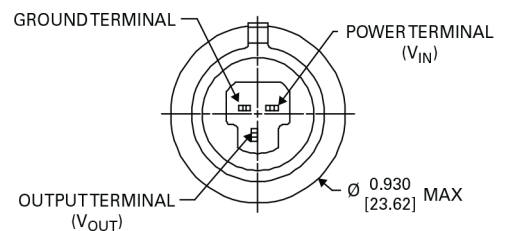
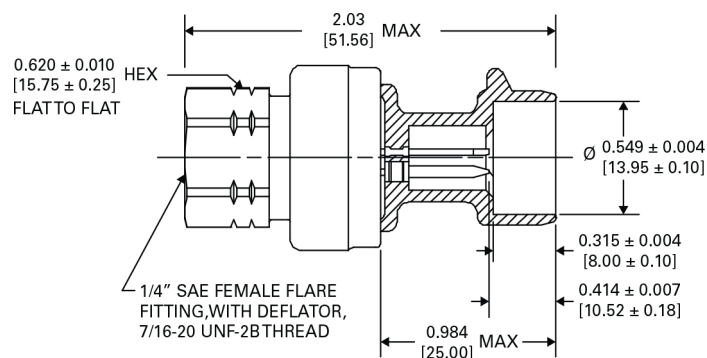
## STANDARDS

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 psia
2CP5B0520400SNN	N 2CP5-71-51	Brass, 0 to 400 psia
2CP5B0520500SNN	2CP5-71-47	Brass, 0 to 500 psia
2CP5S0520500SNN	2CP5-71-48	Steel, 0 to 500 psia

## 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

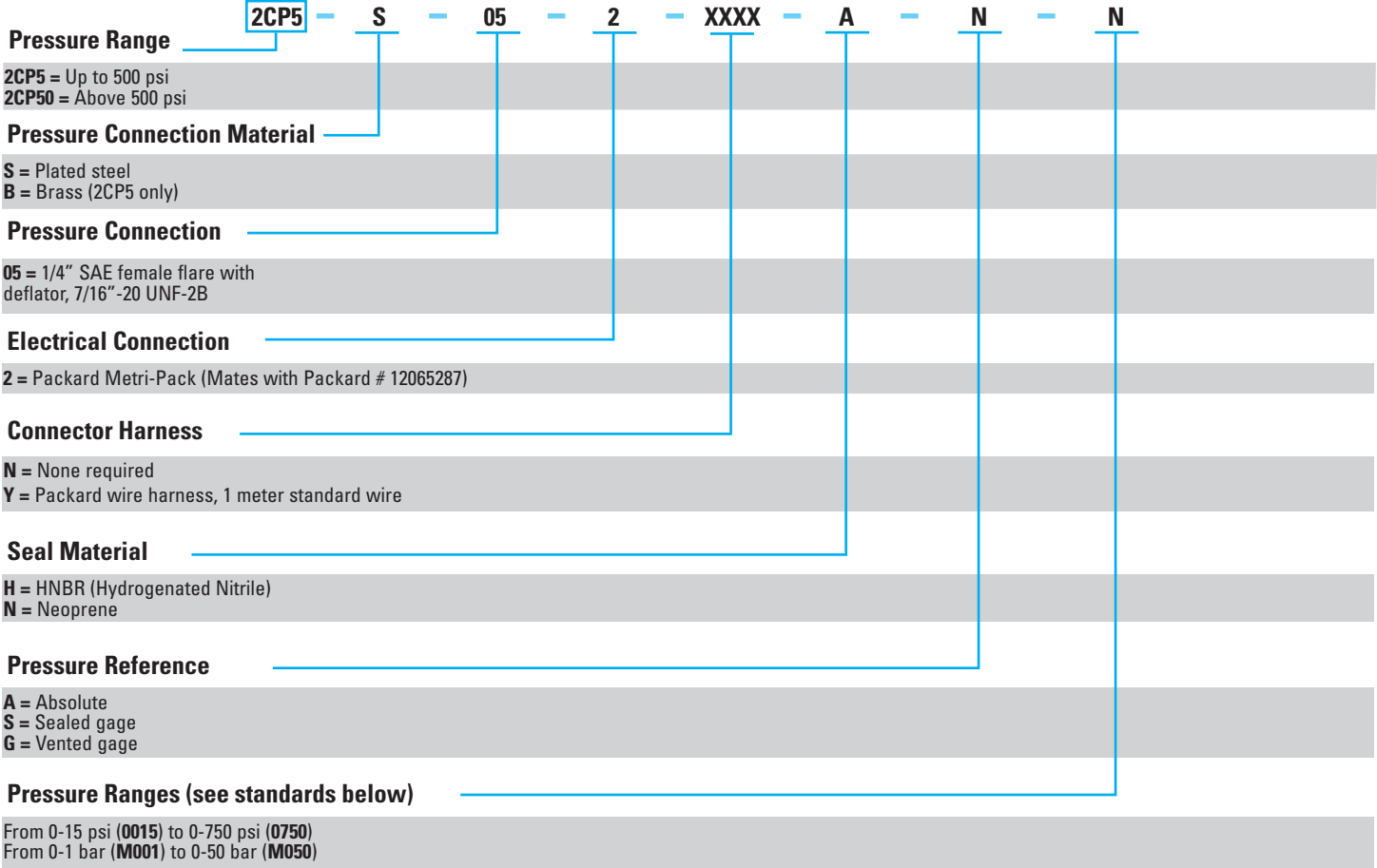


INCHES (MM)



## ORDERING OPTIONS

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



## AGENCY APPROVALS & CERTIFICATIONS



UL recognized file #SA995  
RoHS, REACH available

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