



## | 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

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

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

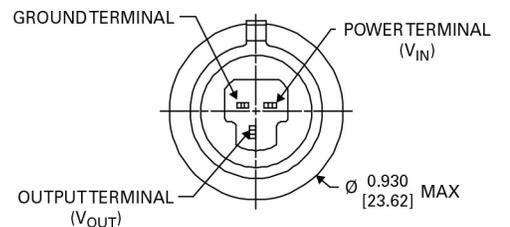
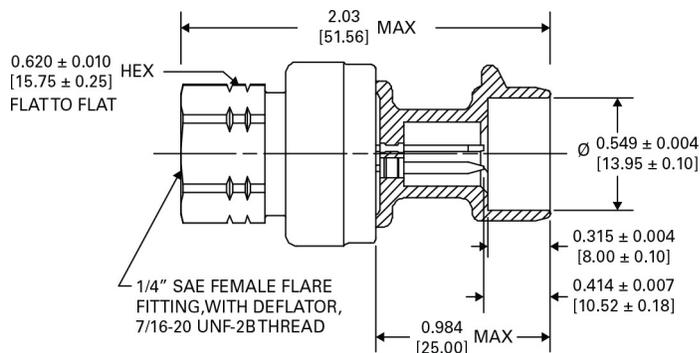
## STANDARDS

Sample PN	Production PN	Description
2CP5B0520150ANN	2CP5-71-46	Brass, 0 to 150 psia
2CP5B0520200ANN	2CP5-71-49	Brass, 0 to 200 psia
2CP5B0520300SNN	2CP5-71-50	Brass, 0 to 300 psis
2CP5B0520400SNN	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

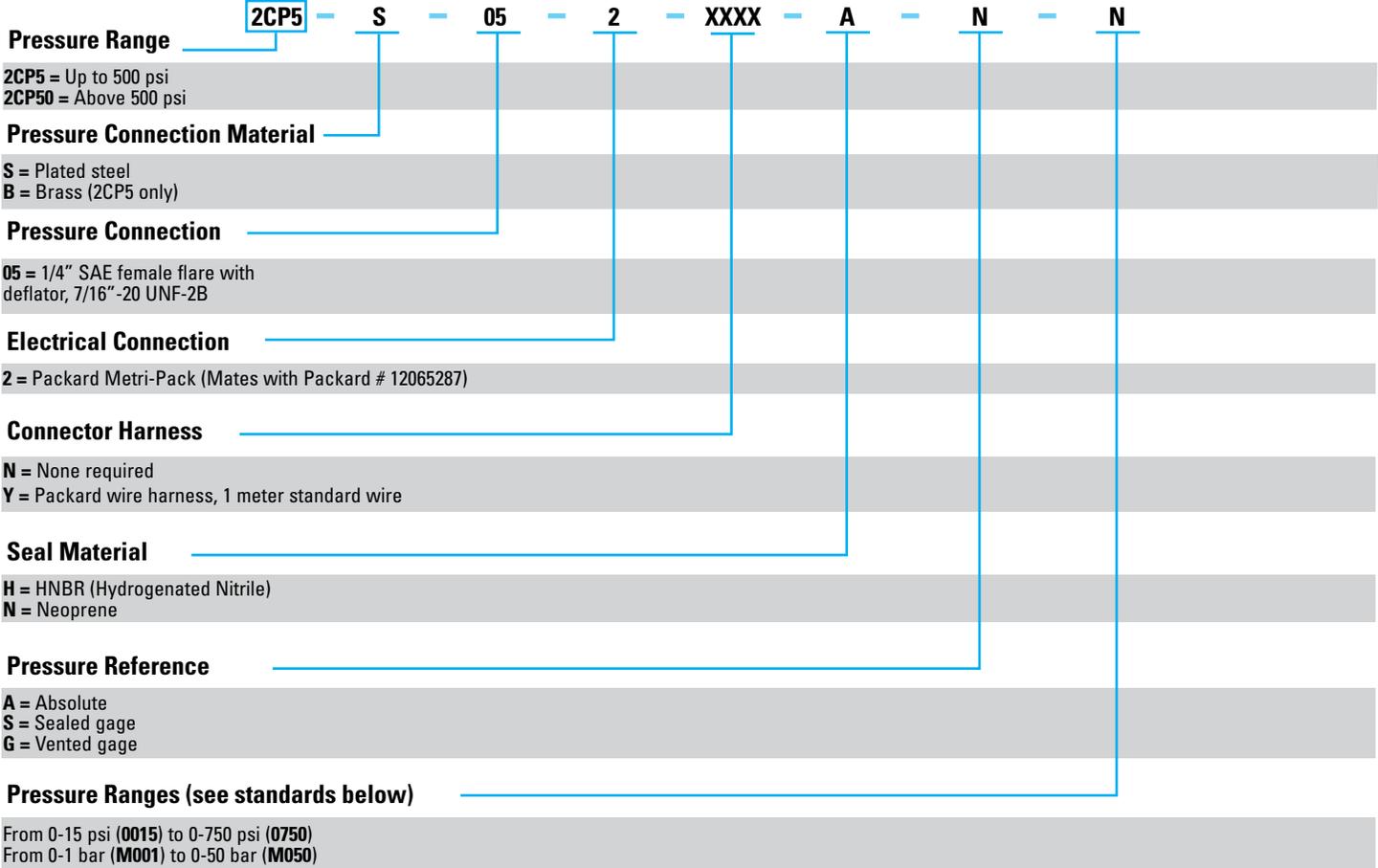


INCHES IMMI



## 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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