



| 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 |

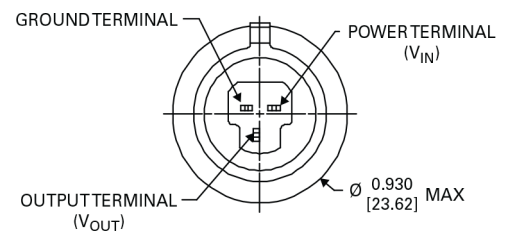
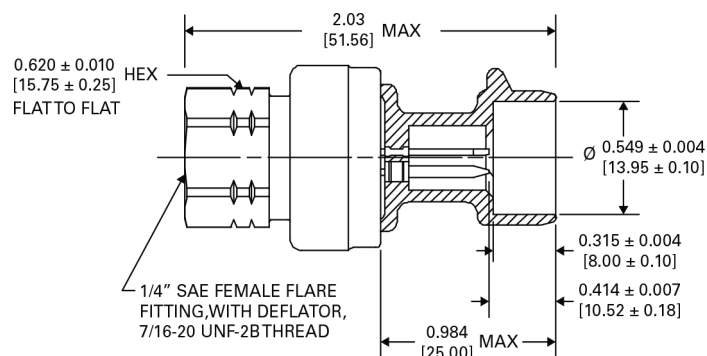
STANDARDS

| 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

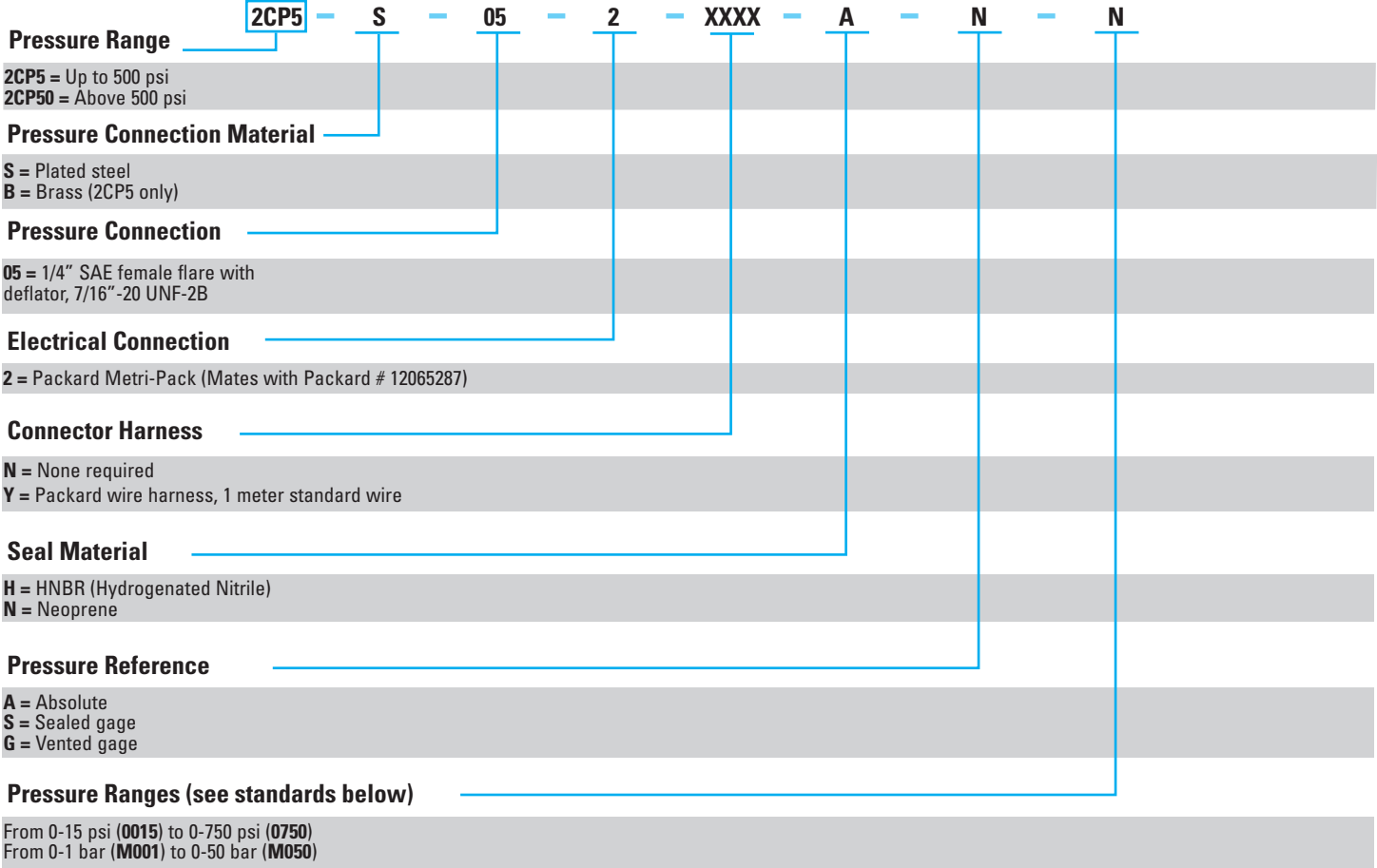


INCHES (MM)



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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