

## Product Bulletin

# 2CP5/2CP50 Series

## HVAC/Refrigeration Pressure Transducer

- **UL Recognized**
- **Ceramic Capacitive Sensor**
- **Durable, compact design**
- **Low Cost**
- **Accurate performance over wide temperatures**
- **Overvoltage & short circuit protected**

The 2CP5/2CP50 Series pressure transducer provides proven performance at a competitive price. The standard design is ideal for demanding HVAC and refrigeration applications where long-term reliability is a must. The transducer

is designed to operate with a 5Vdc supply, and to provide a robust 0 to 5Vdc output. The output is ratiometric to supply voltage, allowing the user to maintain accuracy with variation in the supply voltage. The electrical interface is a rugged

industry accepted connector. The pressure connection is available in multiple threads in either plated steel or brass. This device maintains accuracy through a wide temperature range.



## 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 through 0-650 psi  
Standards listed on reverse  
For non-standard device contact TI.

### Performance

Accuracy..... +/- 1.2% span  
(linearity, hysteresis, repeatability  
and calibration)  
Temperature error: ..... +/- 0.013%/°C  
Operating Temperature: ..... -40°C to +135°C

### Electrical

Supply Voltage (V<sub>in</sub>) ..... 4.5 to 5.5 Vdc  
Output Voltage (V<sub>out</sub>) ..... 0.5 to 4.5 Vdc  
typical  
Supply Current ..... 8 mA  
(Max @ 5.5 Vdc 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 (512 MHz-1 GHz) ..... 25 V/m  
EMC (10 MHz-512MHz) ..... 50 V/m  
ESD (CDF-AEC-Q100-002) ..... 15k V

### Physical

Proof Pressure ..... 5X 15- 75psi  
3X 100-300psi  
2X 500psi  
Burst Pressure ..... 2CP5 1500psi/2500psi min  
2CP50 2500psi min  
Cycle Life ..... 10M F.S. cycles  
Random Vibration ..... 11g  
(50-2000 Hz)  
Drop (any axis)..... 1.5 m  
Electrical Connection ... Nema 4X, IP65

### Agency

UL recognized File # SA995

