

65CP Series

Ceramic Capacitive Pressure Transducer Plated Steel, High Pressure



The 65CP Series transducer delivers high performance at a low cost, suitable for a wide variety of high pressure industrial applications. This is a 0-5 Vdc high level output design that requires no end

user amplification. Output is ratio-metric to supply voltage. With a data conversion circuit referenced to supply voltage, accuracy can be maintained regardless of supply voltage variation. Packaged in a

zinc-plated carbon steel housing with a rugged, weatherproof automotive-grade connector, this transducer is available in sealed gage from 750 psi up to 3000 psi with a variety of package options.

Features

- High performance, Low cost** *Lowest total cost solution*
- Zinc-plated carbon steel housing *Cost effective for general purpose use*
- Weathertight connector *Rugged and reliable*
- EMC protected to 100V/m. *High reliability in noisy environments*
- Wide operating temperature range (-40°C to +135°C) *Wide range of applications*
- Reverse polarity protection *Robust installation*

Benefits

Applications

- Compressors & Pumps
- Hydraulics & Pneumatics
- Agriculture & Construction Equipment
- Transportation & Off Road Vehicles
- Engine Controls & Monitors
- Alternative Energy Management
- Load Management
- Process Control & Automation

Technical Specifications

Pressure Ranges

0-750, 1000, 1500, 2000, 3000, psis

Performance

Accuracy +/-0.75% span
(static error band @ 25°C, 5.0 Vdc)
(linearity, hysteresis, repeatability, calibration)
 Thermal Effect on Zero +/-0.03% F.S./°C
 Thermal Effect on Span +/-0.01% F.S./°C
 Operating Temperature* -40°C to +135°C
 Storage Temperature -40°C to +150°C

*refer to chart on reverse for seal material compatibility

Electrical

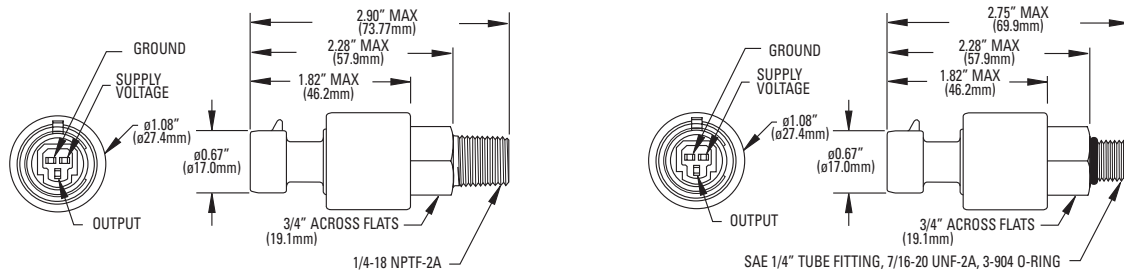
Supply Voltage 4.5 - 5.5 Vdc
 Output Voltage 0.5 - 4.5 Vdc
 Supply Current 7 mA
(Max @ 5.5 Vdc with no load)
 Output Current 2.5 mA
(Max, sink or source)
 Output Load Range 2K ohms min.
 Output Response Time 10 mS
 Overvoltage Protection 16.5 Vdc
 Reverse Voltage Protection -14 Vdc
 EMC (512 MHz-1GHz) 50 V/m
 EMC (1 MHz-512 MHz) 100 V/m
 ESD (CDF-AEC-Q100-002) 15 kV
 Short Circuit Protected Yes

Physical

Proof Pressure 1.5X
 Burst Pressure
 0-750 psi through 0-2000 psi 5000 psi
 0-3000 psi 8000 psi
 Cycle Life
 0-750 psi through 0-2000 psi 5M F.S. cycles
 0-3000 psi consult factory
 Random Vibration 11 g
(50-2000 Hz)
 Drop (any axis) 1.5 m
 Electrical Connection NEMA 4X

65CP Series Ceramic Capacitive Pressure Transducer

Dimensions



Ordering Information

EXAMPLE: **65CP** **03** **2** **1000** **S** **F** **NA0**

Series 65CP

Pressure Connection 1/4" NPTF-2A Male

Electrical Connection Packard Metri-Pack™

Pressure Range 0-1000 psi

Pressure Reference sealed gage

Seal Material Fluorosilicone

Connector Harness none required

STANDARD OPTIONS

Series **65CP**

Pressure Connection **(3/4" Hex – under body)**
03 1/4" NPTF-2A Male

Electrical Connection **2** Packard Metri-Pack™

Pressure Ranges **0750** (psis) **1000** (psis) **1500** (psis)
2000 (psis) **3000** (psis)
psis = sealed gage

Pressure Reference **S** Sealed Gage

Seal Material **E** Ethylene propylene **H** HNBR **V** Viton™
F Fluorosilicone **N** Neoprene

(use seal compatibility guide for temperature ranges)

Connector Harness (Mating Connector) (Wire Lead) (Wire Length)

N None required **A** No wire **0** No length

Y Required **B** Standard wire⁽¹⁾ **1** 1 meter

Y Required **A** No wire **0** No length

B Standard wire⁽¹⁾ **1** 1 meter

F UL 1015, 105°C **2** 2 meter rated wire⁽²⁾

SPECIAL OPTIONS *(Contact factory for availability)*

4 Packard Metri-Pack™ (UL)

⁽¹⁾Black, Red, Green ⁽²⁾Black, Red, Blue

Seal Compatibility Guide

Type	Seal Material	Media Compatibility <i>(Contact TI for more information)</i>	Maximum Seal Temperature Range
B	Nitrile (BUNA-N, NBR)	petroleum oils, lubricants, detergent solutions, helium	-20°C to +100°C
H	HNBR (Hydrogenated Nitrile)	petroleum oils, lubricants, detergent solutions	-20°C to +135°C
E	Ethylene Propylene	steam, soaps, polar solvents, brake fluid, acetone, Skydrol™	-40°C to +135°C
F	Fluorosilicone	chlorinated solvents, oils, fuels, air	-40°C to +135°C
N	Neoprene	refrigerants (freons, ammonia)	-40°C to +120°C
V	Fluorocarbon (Viton™)	fertilizers, freons, butanes, oils, trichloroethylene	-35°C to +135°C

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