

# 63CP Series

## Ceramic Capacitive Pressure Transducer

### Plated Steel, High Accuracy



The 63CP Series transducer delivers high accuracy at a low cost, suitable for a wide variety of industrial applications. This is a 0-5 Vdc high level output design that requires no end user amplification. Output is ratiometric 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 absolute, gage and sealed gage from 15 psi up to 500 psi, with a variety of package options. Contact the factory regarding agency approvals.

## Features

**Accuracy  $\pm 0.75\%$  F.S.** ..... **Lowest total cost solution**

Zinc-plated carbon steel housing	<i>Cost effective for general purpose use</i>
Weathertight connector	<i>Rugged and reliable</i>
EMC protected to 100V/m.	<i>High reliability in noisy environments</i>
Wide operating temperature range (-40°C to +135°C)	<i>Wide range of applications</i>
Reverse polarity protection	<i>Robust installation</i>
Small size	<i>More mounting options</i>
Repeatability <0.05%	<i>Measurement confidence</i>

## 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

0-15, 30, 50, 100 psia  
0-150, 250, 500 psis  
0-15, 30, 50, 100, 150, 250, 500 psig

### Performance

Accuracy	$\pm 0.75\%$ F.S.
<i>(static error band @ 25°C, 5.0 Vdc)</i>	
<i>(linearity, hysteresis, repeatability, calibration)</i>	
Thermal Effect on Zero	$\pm 0.02\%$ F.S./°C
Thermal Effect on Span	$\pm 0.002\%$ 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

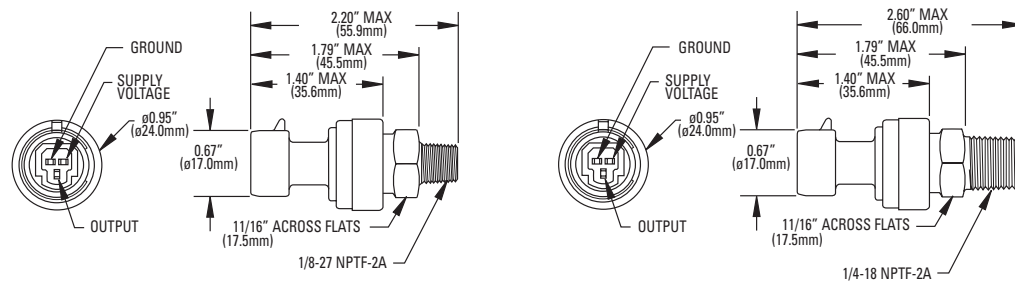
Supply Voltage	4.5 - 5.5 Vdc
Output Voltage	0.5 - 4.5 Vdc
Supply Current	7 mA
<i>(Max @ 5.5 Vdc with no load)</i>	
Output Current	2.5 mA
<i>(Max, sink or source)</i>	
Output Load Range	2K ohms min.
Output Response Time	10 mS
Overvoltage Protection	16.5 Vdc
Reverse Voltage Protection	-14 Vdc
EMC (512 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	5X 15-75 psi 3X 100-300 psi 2X 500 psi
Burst Pressure	2500 psi
Cycle Life	10M F.S. cycles
Random Vibration (50-2000 Hz)	11 g
Mechanical Shock (6 Hz, 1/2 sine)	100 g
Drop (any axis)	1.5 m
Electrical Connection	NEMA 4X

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## Dimensions



## Ordering Information

<b>EXAMPLE:</b>	<b>63CP</b>	<b>02</b>	<b>2</b>	<b>0100</b>	<b>G</b>	<b>F</b>	<b>NA0</b>
<b>Series</b>	63CP						
<b>Pressure Connection</b>	1/8" NPTF-2A Male						
<b>Electrical Connection</b>	Packard Metri-Pack™						
<b>Pressure Range</b>	0-100 psi						
<b>Pressure Reference</b>	gage						
<b>Seal Material</b>	Fluorosilicone						
<b>Connector Harness</b>	none required						

STANDARD OPTIONS				SPECIAL OPTIONS				
Series	63CP							
Pressure Connection	(11/16" Hex – under body)			Consult the factory for other pressure connections				
	02	1/8" NPTF-2A Male	03				1/4" NPTF-2A Male	
Electrical Connection	2	Packard Metri-Pack™		4	Packard Metri-Pack™(UL)			
Pressure Ranges	0015	(psia, psig)	0030	(psia, psig)	0050	(psia, psig)	Consult the factory for other pressure ranges	
	0100	(psia, psig)	0150	(psis, psig)	0250	(psis, psig)		
	0500	(psis, psig)						
	psia = absolute		psig = vented gage		psis = sealed gage			
Pressure Reference	A	Absolute	G	Gage	S	Sealed Gage		
Seal Material	E	Ethylene propylene	H	HNBR	V	Viton™	B	Nitrile (BUNA-N, NBR)
	F	Fluorosilicone	N	Neoprene				
	(use seal compatibility guide for temperature ranges)							
Connector Harness	(Mating Connector)	(Wire Lead)	(Wire Length)	(Mating Connector)	(Wire Lead)	(Wire Length)		
	N	None required	A	No wire	0	No length	Y	Required
	Y	Required	B	Standard wire <sup>(1)</sup>	1	1 meter	B	Standard wire <sup>(1)</sup>
							F	UL 1015, 105°C rated wire <sup>(2)</sup>
				^(1)Black, Red, Green		^(2)Black, Red, Blue		

## Seal Compatibility Guide

Type	Seal Material	Media Compatibility (Contact TI for more information)	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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