

67CP Series

Ceramic Capacitive Pressure Transducer

Brass, High Accuracy



The 67CP Series transducer provides all the performance benefits of our 63CP family of transducers but in brass. This transducer is ideal for the most demanding high volume commercial applications where high accuracy and material selection are of key concern. 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 brass housing with a variety of hexport and thread options, it

comes standard 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
Brass housing	2000 hour salt spray resistance
Weatherproof 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
Small size	More mounting options
Repeatability <0.05%	Measurement confidence

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

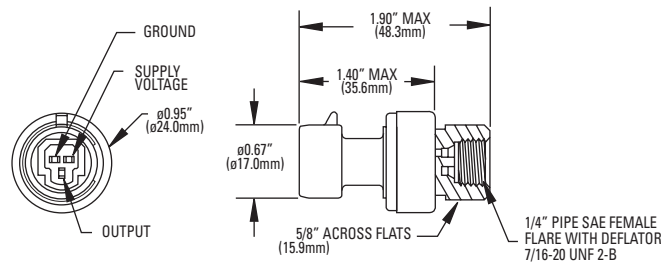
Supply Voltage	4.5 - 5.5 Vdc
Output Voltage	0.5 - 4.5 Vdc
Supply Current	7 mA
<i>(Max @ 5.5 Vdc with no load)</i>	
Output Current	2.5 mA
<i>(Max, sink or source)</i>	
Output Load Range	2K ohms min.
Output Response Time	10 mS
Overvoltage Protection	16.5 Vdc
Reverse Voltage Protection	-14 Vdc
EMC (512 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	1700 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

67CP Series Ceramic Capacitive Pressure Transducer

Dimensions



Ordering Information

EXAMPLE:

Series	67CP	05	2	0150	S	N	NAO
Pressure Connection	1/4" SAE Female flare with deflator, 7/16"-20UNF-2B thread						
Electrical Connection	Packard Metri-Pack™						
Pressure Range	0-150 psi						
Pressure Reference	sealed gage						
Seal Material	Neoprene						
Connector Harness	none required						

STANDARD OPTIONS				SPECIAL OPTIONS		
Series	67CP					
Pressure Connection	(5/8" Hex – under body) 05 1/4" SAE Female flare with deflator, 7/16"-20UNF-2B thread			(11/16" Hex Underbody) 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) 0100 (psia, psig) 0500 (psis, psig)	0030 (psia, psig) 0150 (psis, psig)	0050 (psia, psig) 0250 (psis, psig)	Consult the factory for other pressure ranges		
	<i>psia = absolute</i>	<i>psig = vented gage</i>	<i>psis = sealed gage</i>			
Pressure Reference	A Absolute	G Gage	S Sealed Gage			
Seal Material	E Ethylene propylene F Fluorosilicone (use seal compatibility guide for temperature ranges)	H HNBR N Neoprene	V Viton™	B Nitrile (BUNA-N, NBR)		
Connector Harness	(Mating Connector) N None required	(Wire Lead) A No wire	(Wire Length) 0 No length	(Mating Connector) Y Required	(Wire Lead) A No wire B Standard wire ⁽¹⁾ F UL 1015, 105°C rated wire ⁽²⁾	(Wire Length) 0 No length 1 1 meter 2 2 meter
				⁽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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