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61CP Series

Ceramic Capacitive Pressure Transducer Stainless Steel, High Accuracy

The 61CP Series transducer is ideally suited for environmentally demanding OEM industrial applications. This is a high accuracy, 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. Housed in corrosion resistant stainless steel 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 / Benefits

Features	Benefits
Accuracy +/-0.75% F.S.	***True high accuracy over wide operating conditions***
Stainless steel housing	*All media compatibility*
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*

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	+/-0.75% F.S.
(static error band @ 25°C, 5.0 Vdc)	
(linearity, hysteresis, repeatability, calibration)	
Thermal Effect on Zero	+/-0.02% F.S./°C
Thermal Effect on Span	+/-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
(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	5X 15-75 psi 3X 100-300 psi 2X 500 psi
Burst Pressure	2000 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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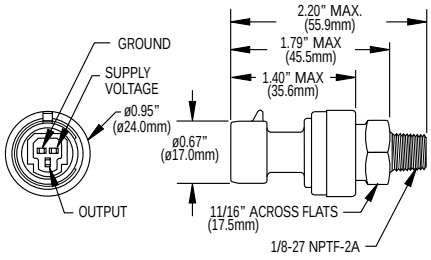
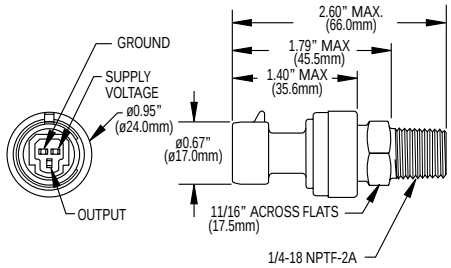
Dimensions





Ordering Information

EXAMPLE: **61CP** **02** **2** **0100** **G** **F** **NA0**

Series	61CP
Pressure Connection	1/8" NPTF-2A Male
Electrical Connection	Packard Metri-Pack™
Pressure Range	0-100 psi
Pressure Reference	gage
Seal Material	Fluorosilicone
Connector Harness	none required

	STANDARD OPTIONS						SPECIAL OPTIONS
Series	**61CP**						
Pressure Connection	**(11/16" Hex – under body)**						
	02	1/8" NPTF-2A Male	**03**	1/4" NPTF-2A Male			Consult the factory for other pressure connections
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)	
	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 **A** No wire **0** No length
							B Standard wire[1] **1** 1 meter
							F UL 1015, 105°C rated wire[2] **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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