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66CP Series

Ceramic Capacitive Pressure Transducer
Plated Steel, Standard Accuracy

The 66CP Series transducer provides proven high volume performance at a low cost. The standard design is ideal for demanding industrial OEM applications. Optional fittings make it equally suited for a variety of high volume, cost-critical OEM applications as well. 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 / Benefits

Features	Benefits
10M+ F.S. cycle life and 500M dither cycle life	***For the most demanding compressor applications***
Zinc-plated carbon steel housing	*Compatible with all refrigerants and oils*
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*
Small size	*More mounting options*

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	+/-1.2% 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	8 mA
(Max @ 5.5 Vdc with no load)	
Output Current	2.5 mA
(Max, sink or source)	
Output Load Range	10K ohms min.
Output Response Time	10 mS
Overvoltage Protection	10 Vdc
Reverse Voltage Protection	No
EMC *(512 MHz-1 GHz)*	25 V/m
EMC *(1 MHz-512 MHz)*	50V/m
ESD *(CDF-AEC-Q100-002)*	15 kV
Short Circuit Protected	No

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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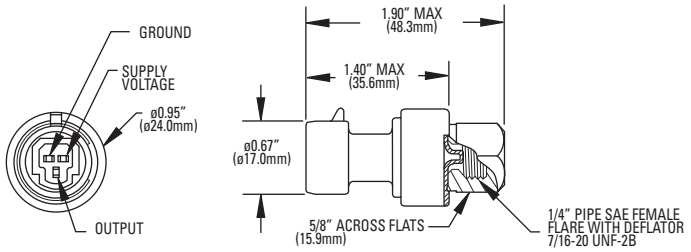
Dimensions



Ordering Information

EXAMPLE: **66CP** **05** **2** **0150** **S** **N** **NA0**

Series	66CP
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	**66CP**						Consult the factory for other options.
Pressure Connection	**(5/8" Hex – under body)**						
	05 1/4" SAE Female flare with deflator, 7/16" -20UNF-2B thread						**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)		
	psia = absolute		*psig = vented gage*		*psis = sealed gage*		
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 *[1]Black, Red, Green*
							(Wire Lead) **A** No wire **B** Standard wire[1] **F** UL 1015, 105°C rated wire[2] *[2]Black, Red, Blue*
							(Wire Length) **0** No length **1** 1 meter **2** 2 meter

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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