CORE SENSORS

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CS10 Industrial Pressure Transducer

- High strength sensing element with long term stability
- Pressures up to 40,000 PSI
- Optional integral snubber
- ≤ ±0.25% BFSL accuracy

CE

OVERVIEW

Core Sensors offers the CS10 industrial pressure transducer for various applications. The CS10 uses MEMS silicon strain gages mounted to a stainless steel or nickel alloy sensing element. The ASIC electronics offer analog voltage or 4-20mA loop powered output signals. Various process connections are available in 17-4, 316L or nickel alloy. Electrical connections include cable or various integral connectors. Semi-custom and custom designs are available for OEM applications.

SPECIFICATIONS

Pressure Range	0 to 40,000 PSI
Pressure Type	Absolute, Gauge, Sealed, Compound
Overpressure	2x, min
Burst Pressure	5x or 60,000 PSI, whichever is less
Pressure Cycles	100 million
Storage Temperature	-40 to +125°C
Operating Temperature	-40 to +85°C
Media Temperature	-40 to +120°C
Compensated Temperature	0 to +60°C
EMI/RFI Protection	Yes
IP Rating	IP65 minimum

Accuracy (includes non-linearity, hysteresis, non-repeatability)	≤ ±0.25% FSO BFSL
Stability (1 year)	≤ ±0.25% of FS
Zero Offset (amplified)	±0.5% typical, ±1% max
Span Tolerance (amplified)	±0.5% typical, ±1% max
Zero Offset (millivolt)	≤ ±2% of FS
Span Tolerance (millivolt)	≤ ±2% of FS
TC Zero	≤ ±1% of FS
TC Span	≤ ±1% of FS
Vibration	10g, 20 to 2000Hz
Shock	100g, 11msec, 1/2 sine

ELECTRICAL INFORMATION

Output	1-5V, 1-6V, 0-5V (3-wire), 4-20mA	0-10V (3-wire)	0.5-4.5V ratiometric	mV/V, millivolt
Power Supply Requirements	10-28VDC, unregulated	15-28VDC, unregulated	5VDC +/-0.5V, regulated	5VDC typical, 10VDC max

*For wiring information, visit: http://www.core-sensors.com/wiring/

ORDERING INFORMATION

CS10 - X - X - XXXXX - X - X - X - X - 000 - XX

Process Connection

1 = 1/2" NPT Male
2 = 1/4" NPT Male
3 = 1/8" NPT Male
4 = 7/16-20 UNF Male
8 = F250C Female Autoclave (≥ 10,000 PSI)
9 = 1/2" NPT Male Flush (max 2,000 PSI)

Wetted Material

A = 316L SS
B = 17-4 PH
C = Hastelloy C276
D = Inconel 718

Pressure Range

Insert 5-digit pressure code, max 40,000 PSI
(i.e. 40000 = 40,000 PSI)
Consult factory for pressures above 10,000 PSI

Pressure Unit

P = PSI
B = Bar
K = KG/CM2
M = Millibar
W = Inches of H2O

Pressure Reference

A = Absolute
V = Vacuum (Gauge)
C = Vacuum (Sealed Gauge)
G = Gauge
S = Sealed Gauge

Cable Length (Meters)

Electrical option "L" & "P" only

00 = No cable
01 = 1 meter
02 = 2 meter
03 = 3 meter

Options

000 = No Special Options
001 = Snubber
002 = 2x Header

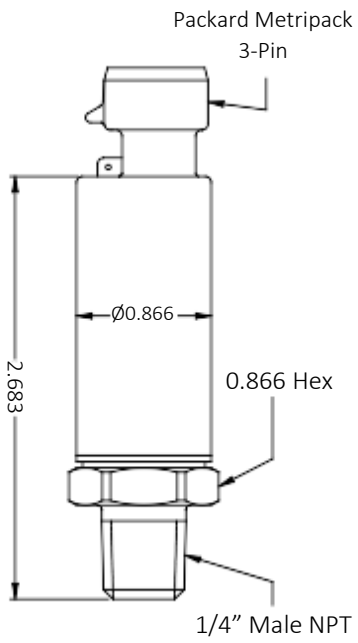
Electrical

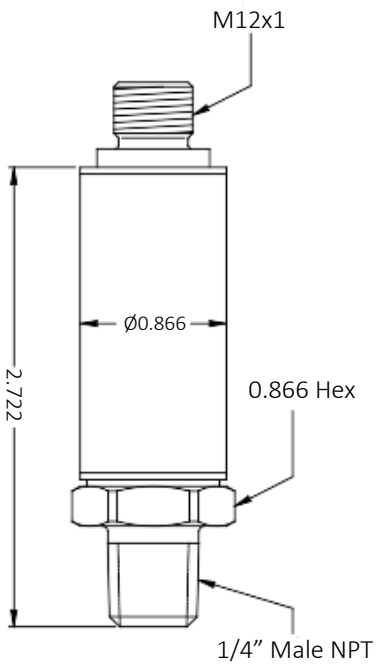
A = M12x1
B = Deutsch DT04-4P
C = Packard 3-Pin
D = Mini-DIN, Form C
E = Deutsch DT04-3P
F = DIN 43650, Form A
G = 6-Pin Bendix
L = Cable (See "Cable Length")
P = Conduit w/ cable (See "Cable Length")

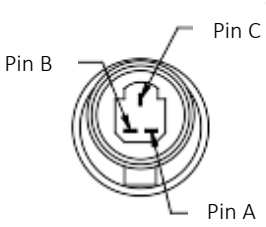
Output

1 = 1-5V
2 = 0.5-4.5V Ratiometric
3 = 1-6V
4 = 4-20mA
5 = 0-5V (3-wire)
7 = 0-10V (3-wire)
9 = 10mV/V

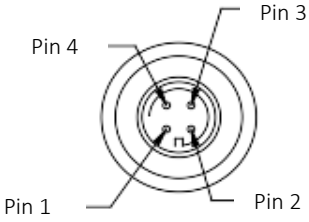
DIMENSIONAL DATA (For reference only)







CONNECTOR – FRONT VIEW



CONNECTOR – FRONT VIEW