

CS10

Industrial Pressure Transducer

FEATURES

- Pressures from vacuum up to 45,000 PSI
- Highly configurable design
- Optional integral snubber
- Wide operating temperature range
- Oxygen cleaning available

APPROVALS/CERTIFICATIONS

- CE

*CSA Ordinary Location available. Contact Core Sensors for more information.

GREAT FOR....

- Water pressure monitoring
- Hydraulic/pneumatic equipment
- HVAC/R controls
- Hydrogen (316L SS only)



About the CS10

The **CS10 Industrial Pressure Transducer** is designed for demanding industrial 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 17-4PH, 316L or nickel alloy including Hastelloy C276 and Inconel 718. Electrical connections include cable or various integral connectors. Semi-custom and custom designs are available.



Configurable Design

The CS10 Industrial Pressure Transducer is the **ideal solution for demanding industrial applications** where ruggedness and reliability are top priority. Choose from various threaded connection sizes, pressure ranges from vacuum up to 45,000 PSI, various electrical connections including integral cable or connectors, wetted materials to ensure adequate compatibility, and various output signals. This level of customization **allows Core Sensors to tailor the CS10 to solve just about any measurement challenge.**

SPECIFICATIONS

Performance

Accuracy @ 25°C: *	$\leq \pm 0.25\%$ BFSL $\leq \pm 0.5\%$ BFSL (≤ 2 PSI & $>10,000$ PSI)
Stability (1 Year):	$\leq \pm 0.25\%$ of FS
Pressure Cycles:	100 million
Overpressure:	2X minimum
Burst Pressure:	5X or 60,000 PSI, whichever is less

* Accuracy includes non-linearity, hysteresis and non-repeatability

Thermal

Operating Temperature:	-40 to +85°C
Media Temperature:	-40 to +120°C
Compensated Temperature:	0 to +55°C
Storage Temperature:	-40 to +125°C
TC Zero:	$\leq \pm 1\%$ of FS $\leq \pm 2\%$ of FS (2 PSI & below)
TC Span:	$\leq \pm 1\%$ of FS $\leq \pm 2\%$ of FS (2 PSI & below)

Environmental

EMI/RFI Protection:	Yes
IP Rating: *	IP65 minimum
Vibration:	10g, 20 to 2000Hz
Shock:	100g, 11msec, 1/2 sine

* IP Rating is dependent on electrical termination selected. Contact factory for more information.

* IP Rating applies when electrical connector is attached with the appropriate ingress protection.

Electrical (Current)

Outputs:	4-20mA
Excitation:	10-28VDC
Current Consumption:	20mA, typical
Output Load:	0-800 Ohms @ 10-28VDC
Frequency Response (min):	~250Hz
Zero Offset (of FS):	$\leq \pm 0.5\%$ typical $\pm 1\%$ max
Span Tolerance (of FS):	$\leq \pm 0.5\%$ typical $\pm 1\%$ max

Electrical (Voltage)

Outputs:	1-5V 0-5V (3-wire) 1-6V 0-10V (3-wire)
Excitation:	10-28VDC 15-28VDC (0-10V output)
Current Consumption:	<10mA
Output Load:	5K Ohms, min
Frequency Response (min):	~1kHz
Zero Offset (of FS):	$\leq \pm 0.5\%$ typical $\pm 1\%$ max
Span Tolerance (of FS):	$\leq \pm 0.5\%$ typical $\pm 1\%$ max

Electrical (Ratiometric Voltage)

Outputs:	0.5-4.5V ratiometric
Excitation:	5VDC +/- 0.5V
Current Consumption:	<10mA
Output Load:	5K Ohms, min
Frequency Response (min):	~1kHz
Zero Offset (of FS):	$\leq \pm 0.5\%$ typical $\pm 1\%$ max
Span Tolerance (of FS):	$\leq \pm 0.5\%$ typical $\pm 1\%$ max

Electrical (Low Power Voltage)

Outputs:	0.5-2.5V non-ratiometric
Excitation:	3-5VDC unregulated
Current Consumption:	≤ 3 mA
Output Load:	5K Ohms, min
Frequency Response (min):	~1kHz
Zero Offset (of FS):	$\leq \pm 0.5\%$ typical $\pm 1\%$ max
Span Tolerance (of FS):	$\leq \pm 0.5\%$ typical $\pm 1\%$ max

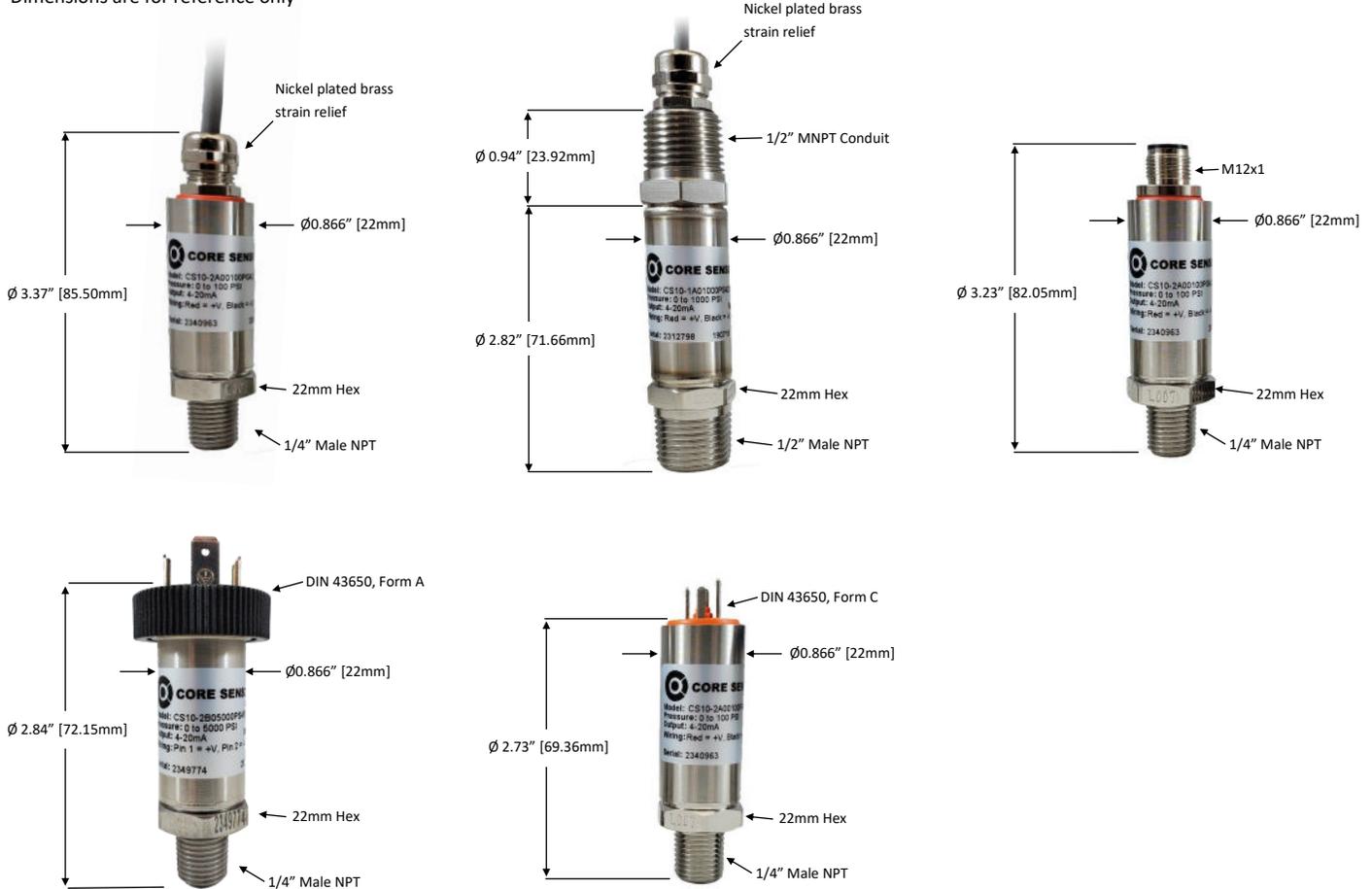
Electrical (Millivolt)

Outputs:	10mV/V
Excitation:	5VDC, typical
Current Consumption:	< 5mA
Output Load:	> 1M Ohms
Frequency Response (min):	~5kHz
Zero Offset (of FS):	$\leq \pm 2\%$
Span Tolerance (of FS):	$\leq \pm 2\%$

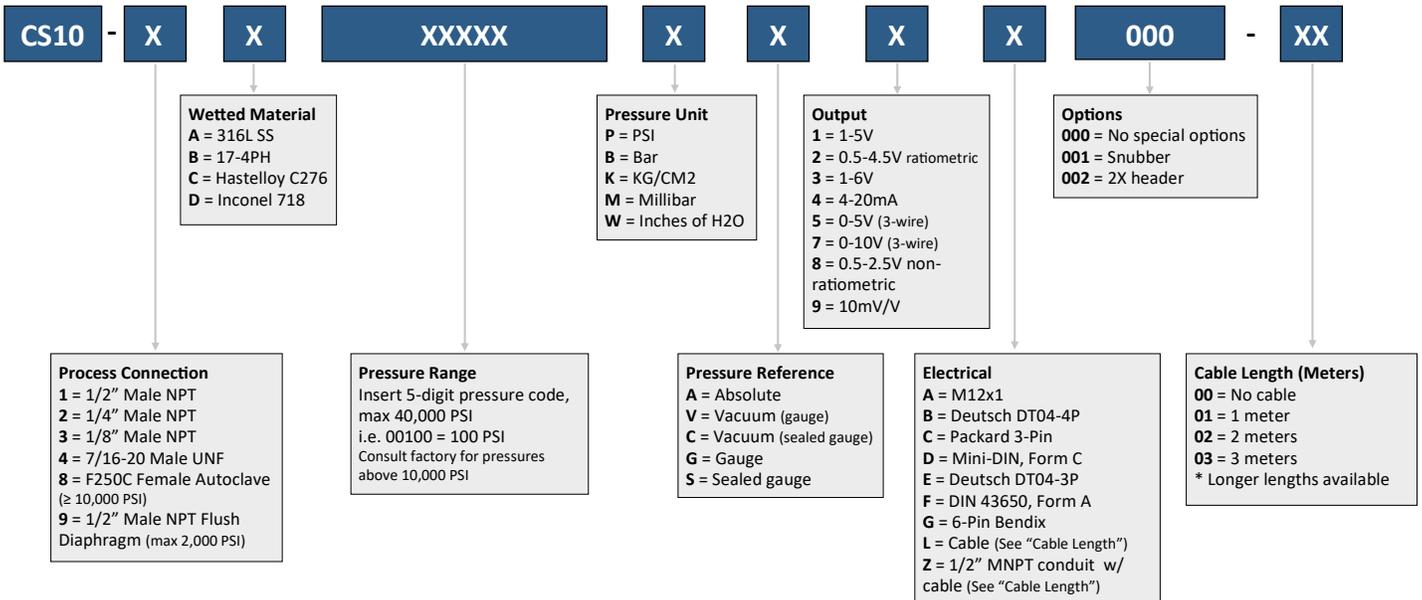
For wiring information, visit core-sensors.com/wiring

DIMENSIONS

*Dimensions are for reference only



MODEL NUMBER CONFIGURATION



Ordering Example: CS10-2A01000PS4A000-00 (1/4" Male NPT, 316L SS, 0-1000 PSI sealed gauge, 4-20mA, M12x1)
 Not all configurations are available. Our sales team can recommend the closest available configuration based on your requirements.
 Contact Core Sensors for configurations not shown.
 Visit our [How To Buy](#) page or [contact us](#) for a quote.

Warranty information can be found online at core-sensors.com.