

CS51

Non-Incendive Low Pressure Transducer



The CS51 pressure transducer is a high strength sensor designed for low pressure measurements in Class 1, Division 2 locations. The CS51 features an all welded stainless steel construction for a minimum IP65 rating. A wide range of configurable options make the CS51 a versatile pressure transducer designed to operate in some of the harshest conditions. The CS51 is an excellent solution for applications such as natural gas compression, external fuel tank level measurement and process control instrumentation.

FEATURES

- Pressures from 1 PSI up to 49 PSI (See model CS50 for pressures 50 PSI and above)
- Bi-directional pressure ranges available
- Media isolated
- Reverse polarity and EMI protection

COMMON APPLICATIONS

- Natural gas compression
- Vapor recovery
- Process controls

Approvals / Certifications

- CSA Class I, Division 2, Groups A, B, C, D T4
- ABS (American Bureau of Shipping)
- CE

SPECIFICATIONS

Performance @ 25°C

Accuracy*	≤ ±0.25% BFSL ≤ ±0.5% BFSL (2 PSI & below)
Stability (1 Year)	≤ ±0.25% of FS
Pressure Cycles	100 million
Overpressure	2x minimum
Burst Pressure	5X or 245 PSI, whichever is less

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

Thermal

Operating Temperature	-40 to +80°C
Operating Temperature (Electrical connection "F", DIN 43650-A)	-20 to +80°C
Media Temperature	-40 to +125°C
Media Temperature (Electrical connection "F", DIN 43650-A)	-40 to +105°C
Compensated Temperature	0 to +55°C
Storage Temperature	-40 to +125°C
TC Zero	≤ ±1% of FS ≤ ±2% of FS (2 PSI & below)
TC Span	≤ ±1% of FS ≤ ±2% of FS (2 PSI & below)

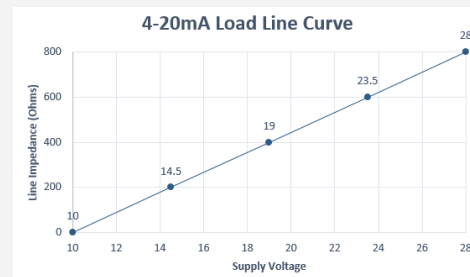
Environmental

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

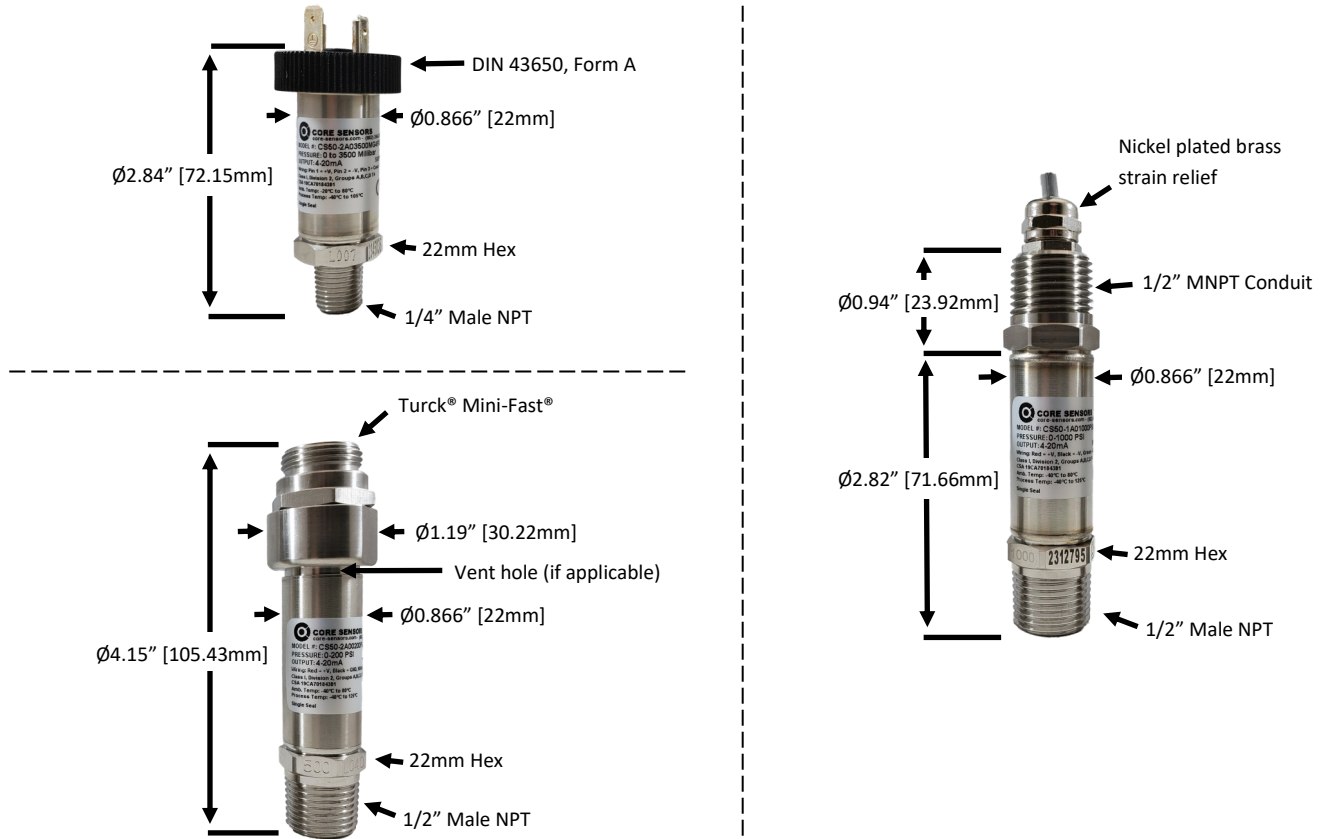
Excitation	10-28VDC (4-20mA, 1-5V, 1-6V) 5VDC +/- 0.5V (0.5-4.5V ratiometric) 3-5VDC unregulated (0.5-2.5V non-ratiometric)
Current Consumption	20mA, typical (4-20mA) <10mA (voltage output) ≤3mA (0.5-2.5V non-ratiometric)
Output Load	See load line curve below (4-20mA) 5K Ohms, min (voltage output)
Frequency Response (minimum)	~250Hz (4-20mA) ~1kHz (voltage output)
Zero Offset (of FS)	≤ ± 0.5% typical; ± 1% max
Span Tolerance (of FS)	≤ ± 0.5% typical; ± 1% max



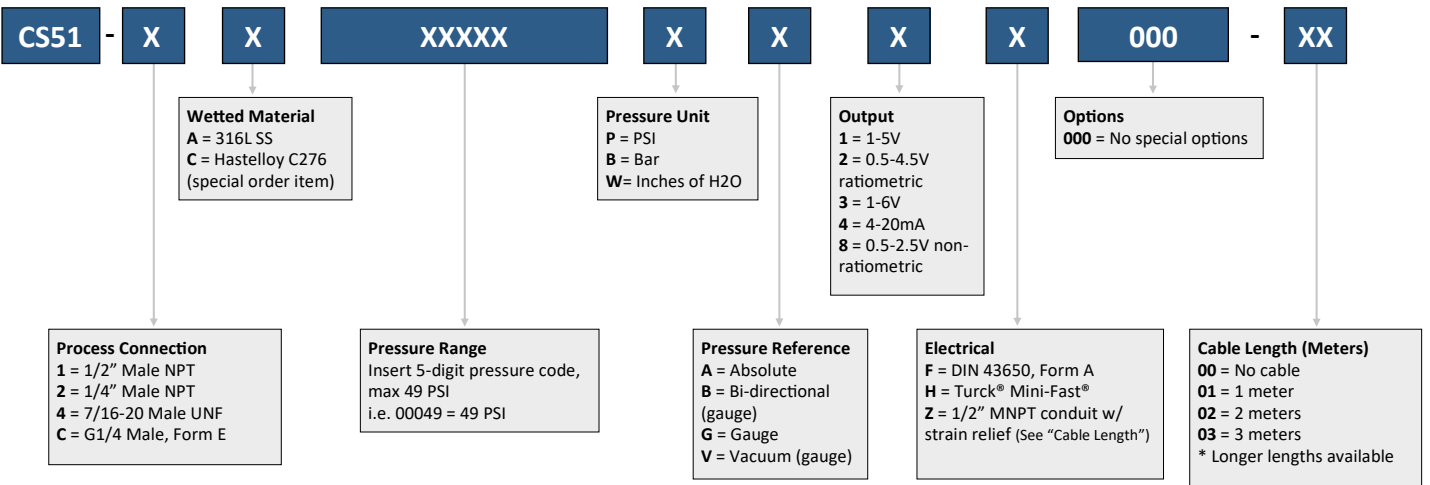
For wiring information, visit <https://www.core-sensors.com/wiring>

DIMENSIONS

*Dimensions are for reference only



MODEL NUMBER CONFIGURATION



Ordering Example: CS51-2A00010PG4H000-00 (1/4" Male NPT, 316L SS, 0-10 PSI gauge, 4-20mA, Turck® Mini-Fast®)
 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 www.core-sensors.com.



Caution must be taken when installing and operating the CS51 in known Class I, Division 2 hazardous locations. **Please review the Non-Incendive Operating Instructions prior to installation. Call Core Sensors at (862) 245-2673** if you are unsure about any of the instructions or to request a copy. Instruction manuals and Certificates of Compliance can be downloaded from the CS51 product web page at www.core-sensors.com.