

CS15

Non-Clogging Submersible Pressure Transducer

FEATURES

- Pressures from 2 PSI up to 50 PSI
- Heavy duty steel cage
- Flush diaphragm prevents clogging
- Hastelloy C276 diaphragm material
- IP68 rated
- Compensated temperature from -15 to +65°C
- Low power options available for remote telemetry applications!

GREAT FOR....

- Wastewater lift stations
- Liquid level measurement
- Tanks with viscous media
- Turbulent tanks



About the CS15

The **CS15 Non-Clogging Submersible Pressure Transducer** is designed for liquid level measurement in turbulent tanks and tanks with viscous medias such as wastewater lift stations. A Hastelloy C276 diaphragm, stainless steel construction and an ETFE cable jacket allow for installation in a wide variety of liquids. The heavy duty steel cage anchors the sensor at the bottom of the tank to ensure accurate level readings as well as acting as a barrier between solids in the tank and the flush diaphragm of the sensor. A vent tube runs the length of the cable and quickly equalizes the barometric pressure within the sensor body. The CS15 is available in various output signals including 4-20mA for long distance transmissions and voltage outputs for low power, low current consumption applications.



Engineered For The Toughest Environments

The CS15 Non-Clogging Submersible Pressure Transducer was carefully engineered to withstand some of the toughest environments. With a thickness of 1 to 1.5 mils, the diaphragm is the thinnest component of the transducer. To help protect this critical component, **Hastelloy* C276 (UNS N10276) is the standard diaphragm material**. This material is a super nickel-molybdenum-chromium alloy offering excellent corrosion resistance, prolonging the life of the transducer.

300 series stainless steel (316L and 304) makes up the remaining metallic construction including the heavy duty steel cage, housing (case), and 1/2" MNPT conduit fitting. Precision tig welds along with a Kynar strain relief and Viton seals prevent liquids from entering the sensor, **resulting in an IP68 rating**.

*Hastelloy® is a registered trademark of Haynes International, Inc.

SPECIFICATIONS

Performance

| | |
|----------------------------|---|
| Accuracy @ 25°C: * | ≤ ± 0.25% BFSL ≤ ± 0.5% BFSL (2 PSI) |
| Stability (1 Year): | ≤ ± 0.25% of FS |
| Pressure Cycles: | 50 million |
| Overpressure: | 2X minimum |
| Burst Pressure: | 5X or 250 PSI, whichever is less |

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

Thermal

| | |
|---------------------------------|--------------------------------------|
| Operating Temperature: | -40 to +85°C |
| Compensated Temperature: | -15 to +65°C |
| Storage Temperature: | -40 to +125°C |
| TC Zero: | ≤ ± 1% of FS ≤ ± 2% of FS (2 PSI) |
| TC Span: | ≤ ± 1% of FS ≤ ± 2% of FS (2 PSI) |

Environmental

| | |
|----------------------------|------------------------|
| EMI/RFI Protection: | Yes |
| IP Rating: | IP68 |
| Vibration: | 10g, 20 to 2000Hz |
| Shock: | 100g, 11msec, 1/2 sine |

Physical

| | |
|---------------------------------|---------------------------------|
| Weight, excluding cable: | 3.50 lb. (approx.) |
| Wetted Material: | See Dimension/Materials listing |
| Cable Conductors: | 22 AWG |
| Cable Pull Strength: | 150 lb. |

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): | ≤ ± 0.5% typical ± 1% max |
| Span Tolerance (of FS): | ≤ ± 0.5% typical ± 1% max |

Electrical (Voltage)

| | |
|----------------------------------|------------------------------|
| Outputs: | 1-5V |
| Excitation: | 10-28VDC |
| Current Consumption: | <10mA |
| Output Load: | 5K Ohms, min |
| Frequency Response (min): | ~1kHz |
| Zero Offset (of FS): | ≤ ± 0.5% typical ± 1% max |
| Span Tolerance (of FS): | ≤ ± 0.5% typical ± 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): | ≤ ± 0.5% typical ± 1% max |
| Span Tolerance (of FS): | ≤ ± 0.5% typical ± 1% max |

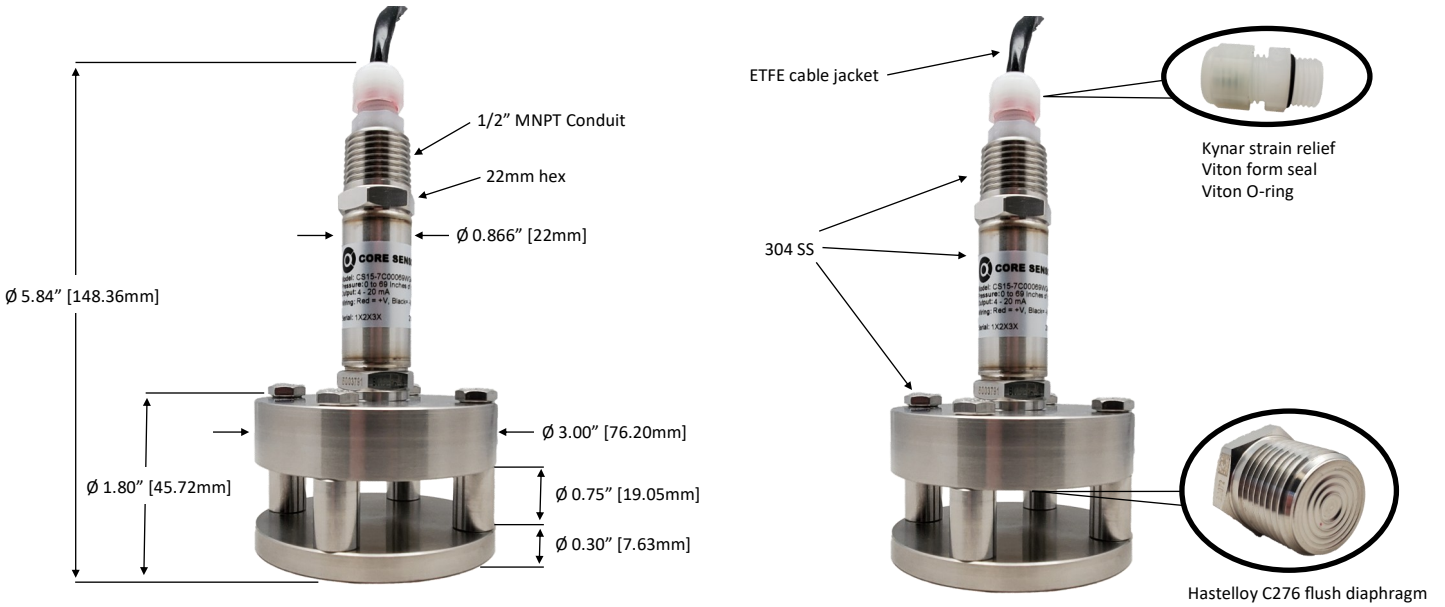
Electrical (Low Power Voltage)

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

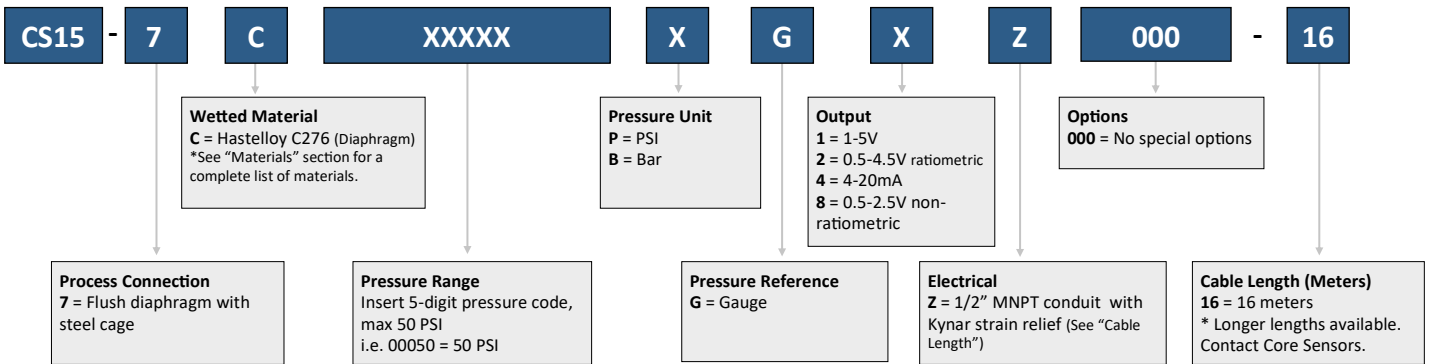
For wiring information, visit core-sensors.com/wiring

DIMENSIONS & MATERIALS

*Dimensions are for reference only



MODEL NUMBER CONFIGURATION



Ordering Example: CS15-7C00010PG4Z000-16 (Steel cage, Hastelloy C276, 0-10 PSI gauge, 4-20mA, 1/2" MNPT conduit w/ Kynar strain relief, 16 meter cable)
 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.

****Disclaimer:** Unless otherwise agreed in writing, Core Sensors products are not authorized for use in applications including medical devices, life support systems, in-flight aerospace, nuclear or any other application where the product failure could result in personal injury or death.

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