# Submersible Pressure Transducer

### Model CS408

The CS408 is an SDI-12 submersible pressure transducer, manufactured by Pressure Systems, that measures surface water, ground water, or hostile fluid levels. It has a piezoresistive sensor that incorporate an isolated stainless steel diaphragm into a stainless steel package. The sensor assembly is housed in welded 316 SS case that includes a diaphragm shield for protection against debris.

Each transducer is shipped with a calibration sheet. The sheet specifies I/O conditions, as well as actual data reflecting the unit's static accuracy and thermal characteristics. Each vented transducer is also shipped with a desiccant tube to extract water vapor from air entering the vent tube.

The CS408 is designed for installation in a Class 1, Division 1, Groups A, B, C and D; Class II, Division 1, Groups E, F and G; and Class III Division 1 hazardous location when connected to an approved electrical barrier.



#### **Features**

- High static accuracy and repeatability
- Small, rugged package
- Welded 316 stainless steel construction
- · Computer tested, calibrated and serialized
- Unique cable seal system

- Fully temperature compensated
- Compatible with Campbell Scientific's, CR200series, CR510, CR800, CR10X, CR1000, CR3000, and CR5000 dataloggers
- Directly connect to our dataloggers

## **Ordering Information**

CS408 SDI-12 pressure transducer; must choose a cable type and a measurement range.

#### Cable options

- -L Polyurethane cable with user-specified lead length; enter lead length, in feet, after the -L. For example, CS408-L25 orders a 25' polyurethane cable.
- -LT Tefzel cable with user-specified lead length; enter lead length, in feet, after the -L. For example, CS408-LT25 orders a 25' Tefzel cable.

#### Measurement range options

- -5 0 to 5 psig range
- -15 0 to 15 psig range
- -30 0 to 30 psig range
- -50 0 to 50 psig range
- -100 0 to 100 psig range
- 16244 Spare dessicant
- 13462 Optional ¼" NPT Pressure Cap
- 7421 Optional Split Mesh Grip



### Manufacturer's Specifications (Pressure Systems)

#### Performance

User Specified Level Ranges: 0-10, 35, 70, 115, 230 ft H<sub>2</sub>O

Static Accuracy:

Level:  $\pm 0.05\%$  FS TEB\* for level ranges >10 ft H<sub>2</sub>O

±0.1% FS TEB\* for level ranges ≤10 ft H<sub>2</sub>O

Temperature:  $\pm 0.5$ °C Excitation:  $\pm 0.5$  Vdc

Resolution:

Level:  $\pm 0.0001\%$  FS
Temperature:  $\pm 0.001^{\circ}$ C
Excitation:  $\pm 0.1$  Vdc

Proof Pressure: 1.5 x rated pressure Burst Pressure: 2.0 x rated pressure

#### **Environmental**

Compensated temperature range: 0° to 50°C Operating temperature range: -20° to 60°C

#### Physical

Weight: 26 oz., 750 g (with 25 ft cable)

Cable: Polyurethane-jacketed or Tefzel-jacketed, shielded cable with

polyethylene vent tube and Kevlar tension members. Pull strength is 200 lbs. Conductors are 22 awg. Approximate weight is 0.05 lb, per foot (79 g/m). Polyurethane-jacketed cables contain water-block tape to prevent moisture intrusion through small cuts in the cable

from reaching the transducer.

Dimensions:

Transducer: 4.5" (11.4 cm) length, 1.0" (2.5 cm) diameter

Cable: 0.28" (0.71 cm) diameter

Output: SDI-12 digital interface standard

<sup>\*</sup> Total Error Band (TEB) includes the combined errors due to nonlinearity, hysteresis, nonrepeatability, and thermal effects over the compensated temperature range, per ISA S51.1.