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# 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 piezo-resistive 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, CR200-series, 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 desiccant

13462 Optional 1/4" NPT Pressure Cap

7421 Optional Split Mesh Grip



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## 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:	±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:	±0.5°C
Excitation:	±0.5 Vdc
Resolution:	
Level:	±0.0001% FS
Temperature:	±0.001°C
Excitation:	±0.1 Vdc
Proof Pressure:	1.5 x rated pressure
Burst Pressure:	2.0 x rated pressure

\* 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.

### 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



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