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 incorporates 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 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 H₂O

Static Accuracy:

  Level: ±0.05% FS TEB* for level ranges >10 ft H₂O
  ±0.1% FS TEB* for level ranges ≤10 ft H₂O

  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°C to 50°C

  Operating temperature range: -20°C 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