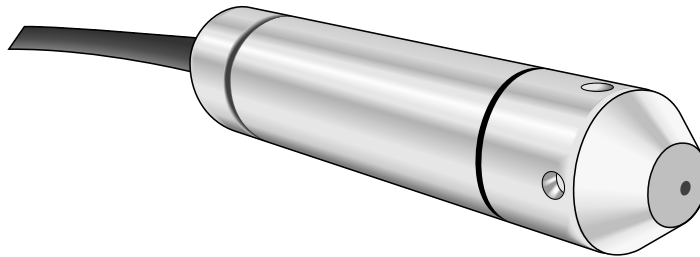

Submersible Pressure Transducers

Models CS400, CS405, and CS408

These submersible pressure transducers, manufactured by Pressure Systems, measure surface water, ground water, or hostile fluid levels. They are piezoresistive sensors that incorporate an isolated stainless steel diaphragm into a stainless steel package. The sensor assembly is housed in welded 316 SS or titanium 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.

These units are 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
- User-specified pressure ranges available
- Welded 316 stainless steel construction
- Computer tested, calibrated and serialized
- Unique cable seal system
- Fully temperature compensated
- Compatible with Campbell Scientific's CR510, CR10(X), CR23X, CR7, CR5000 and CR9000 dataloggers

Ordering Information

When ordering a transducer, specify the desired psi range, choose either a polyurethane-jacketed or Tefzel-jacketed cable and specify the lead length, in feet, after the L.

CS400_L Four-wire pressure transducer with an accuracy of $\pm 0.25\%$ FSO. Compatible with the PST3/8 system and connects directly to a multiplexer. Requires a 7977 resistor assembly to connect with a datalogger.

CS405_L Four-wire pressure transducer with an accuracy of $\pm 0.1\%$ FSO. Compatible with the PST3/8 system and connects directly to a multiplexer. Requires a 7977 resistor assembly to connect to a datalogger.

CS408_L SDI-12 pressure transducer with an accuracy of $\pm 0.05\%$ FSO.

7977 100 Ohm Shunt Resistor Assembly for the CS400 or CS405

14421 Optional titanium housing for the CS400 or CS405

13462 Optional 1/4" NPT Pressure Cap

7421 Optional Split Mesh Grip



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Manufacturer's Specifications (Pressure Systems)

Performance

User Specified Pressure Ranges:	0-5, 15, 30, 50 100 psig (CS408) 0-2 through 0-300 psig (CS400, CS405)
Static Accuracy:*	±0.25% FSO BFSL (CS400) ±0.1% FSO BFSL (CS405) ±0.05% FSO BFSL (CS408)
Thermal Error:**	0.022% FSO °C ⁻¹ worst case
Proof Pressure:	1.5 x rated pressure
Burst Pressure:	2.0 x rated pressure
Resolution:	Infinitesimal

* Static accuracy includes the combined errors due to nonlinearity, hysteresis and nonrepeatability on a Best Fit Straight Line (BFSL) basis, at 25°C, per ISA S51.1.

**Thermal error is the maximum allowable deviation from the Best Fit Straight Line due to a change in temperature, per ISA S51.1.

Environmental

Compensated temperature range:	0° to 27°C
Operating temperature range:	-20° to 60°C

Physical

Weight:	4 oz., 113 g (not including 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 0.04 lb, (18 g) per foot. 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:	30 to 65 mV full scale at 0.5 mA excitation, ratiometric (CS400, CS405); SDI-12 digital interface standard (CS408)



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