

Series 700 Submersible Liquid Level Transducers



Features

- Standard stocked ranges of 0.25 bar G, 0.5 bar G or 1 bar G range, other ranges available to order
- 4-20mA output standard, 9 to 30VDC loop voltage required (mV, mV/V or VDC outputs optional)
- Temperature compensated (10 to 30°C)
- -20 to 60°C operating range
- High static accuracy & repeatability
- Small rugged package
- Piezoresistive pressure sensing
- Computer tested & calibrated
- Welded 316 stainless steel construction
- Shielded cable with polyurethane cable jacket (Tefzel optional)
- Unique cable seal system
- Intrinsically safe (approved barriers to be used in hazardous environments)
- Choice of optional nose caps to suit a variety of applications
- Desiccant vent tube moisture barrier supplied as standard (replace when crystals turn pink)
- Suitable for a wide variety of applications
- Reverse polarity and short circuit output protected
- Optional vent tube aneroid bellows
- Optional surge/lightning protection
- Optional 1/2" male NPT conduit fitting
- High accuracy models (as low as 0.1% static accuracy) available to order
- 12 months warranty
- CE approved

Description

The Series 700 family of submersible liquid level pressure transducers is specifically designed to meet the rigorous environments encountered in liquid level measurement and control. It can be configured to perform to specifications under the most adverse, reactive conditions.

These transducers incorporate the latest advancements in piezoresistive pressure sensing technology. A stability enhancing charged "Field Shield" is vapour deposited directly to the pressure cell. A welded 316 stainless steel diaphragm with a spring ratio of 1000:1 with the piezoresistive pressure cell is used for contact with the media.

The series 700 also features state of the art surface mount internal signal conditioning which provides a power supply rejection of 0.001% and a 4-20mA process signal.

Each transducer is shipped with a desiccant barrier which prevents moisture from entering the cable vent tube and with a traceable calibration card. An optional aneroid bellows can be fitted instead for the desiccant barrier for applications in which the desiccant tube cannot be replaced.

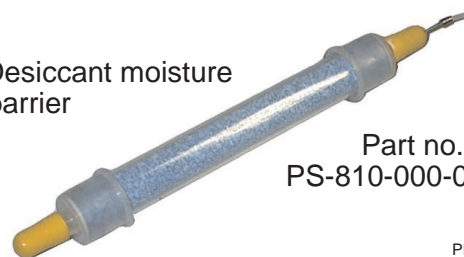
A range of field installable nose caps are optionally available. The open faced nose cap is supplied as standard and is ideal for wastewater and greasy applications where clogging of the sensor is a concern, the closed face nose cap is best used where sharp protruding objects may be encountered. The 1/4" NPT nose cap can be used for calibration and also allows the sensor to be used as either an in line or submersible sensor. The Piezometer nose cap allows the unit to be buried in the ground without damage to the sensor diaphragm.

Typical applications include well monitoring, pump control, ground water monitoring, soil remediation, oceanographic research, lift stations, level monitoring & control and surface water monitoring.

The transducer is certified intrinsically safe. When installed in hazardous areas approved electrical barriers must be used and local & national electrical standards adhered to.

Refer to "Series 700 Submersible Transducers - Options" brochure for details on options and accessories.

Desiccant moisture barrier



Part no.:
PS-810-000-0000

PRES700-2.0-0

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SPECIFICATIONS

Specifications are subject to change without notice

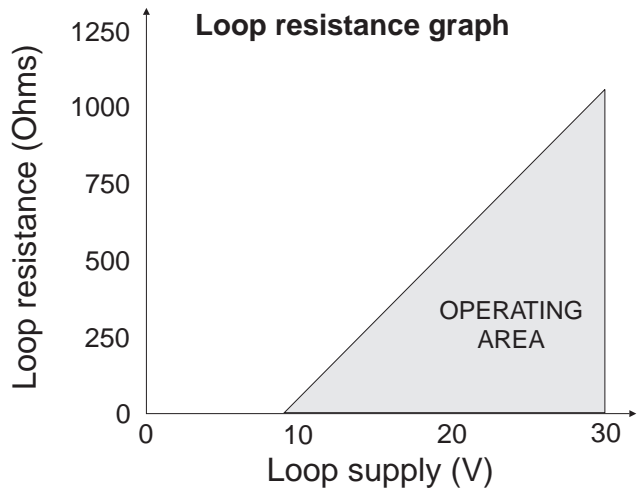
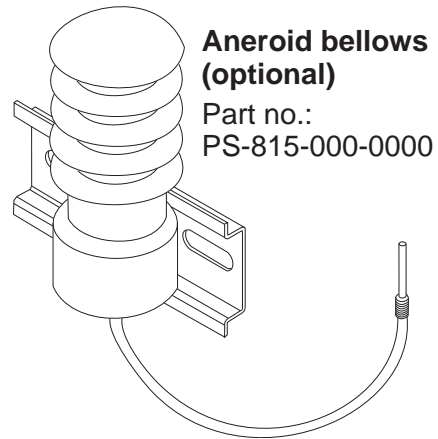
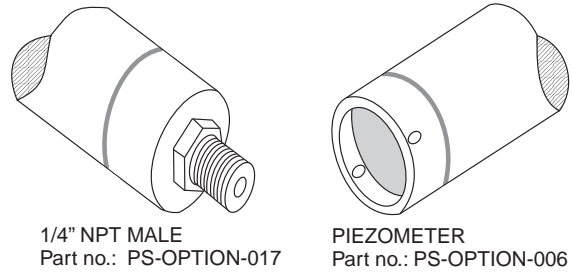
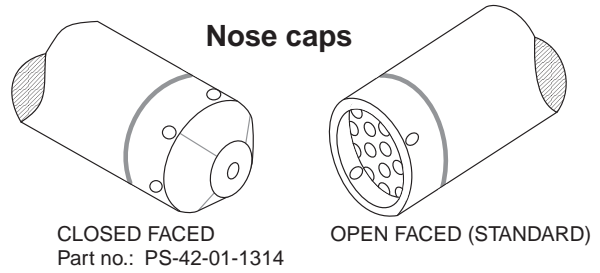
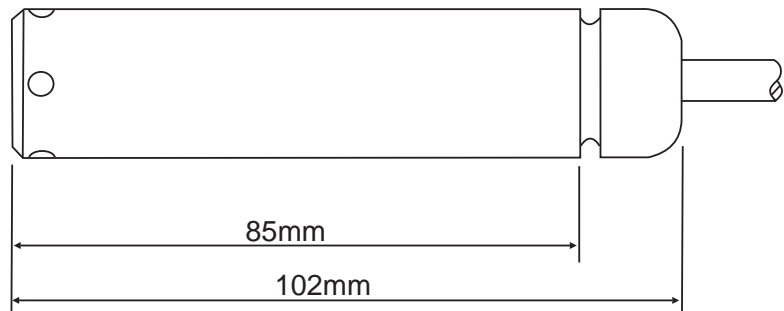
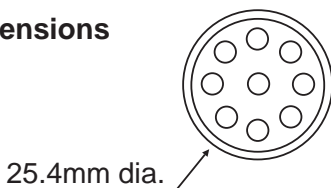
- Bore Dimension: 25.4mm diameter
 - Standard Pressure Ranges: 0.25 bar G, 0.5 bar G or 1 bar G other ranges available to order
 - Proof Pressure: 1.5 x F.S.
 - Burst Pressure: 2.0 x F.S.
 - Compensated Temperature Range: 10 to 30°C
 - Operating Temperature Range: -20 to 60°C
 - Static Accuracy: ±1.00% FSO best fit straight line
 - Thermal error: ±0.01% FSO/°C
 - Resolution: Infinitesimal
 - Excitation: 9 - 30 VDC
 - Input current: 20mA max.
 - Zero offset: ±0.12mA
 - Output impedance: <10Ω
 - Pressure Connection: Standard submersible, open-faced screen
 - Electrical Connection: Standard submersible cable exit
 - Wiring: Red + excitation
Black - excitation
Blue shield
 - Cable: Polyurethane jacketed shielded cable with polyethylene vent tube and Kevlar tension members; 90 kg pull strength
 - Wetted Materials: 316 SS
 - Dimensions: 25.4mm (dia) x 102mm (l)
 - Weight: 198 gms (not including cable or desiccant tube)
- The series 700 family of submersible pressure transducers is Intrinsically Safe with approvals to FM, CSA, and UL, when used with an approved barrier device.

ORDER CODE FOR STOCKED PRODUCTS

- PS700S025A05MP1 (0.25 bar G 5m cable)
- PS700S050A10MP1 (0.50 bar G 10m cable)
- PS700S100A12MP1 (1 bar G 12m cable)

See "Series 700 Submersible Transducers - Options" brochure for details of options and accessories.

Dimensions



$$\text{Maximum loop resistance (Ohms)} = \frac{(\text{Loop supply}) - 9V}{20mA}$$