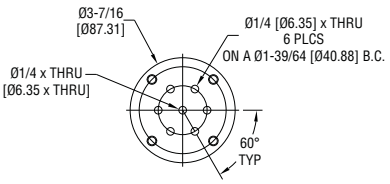
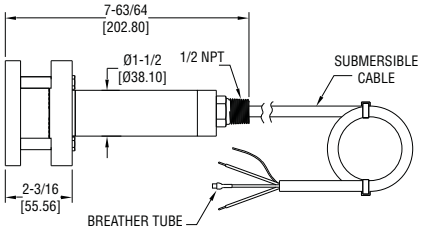
# Series PBLT2 Submersible Level Transducer

## Specifications - Installation and Operating Instructions




**The PBLT2 Submersible Level Transducer** is manufactured for years of trouble free service in the harshest applications. The PBLT2 measures the height of liquid above its position in the tank referenced to atmospheric pressure. The transducer consists of a piezoresistive sensing element, encased in a 316 SS housing. Perfect for wastewater and slurry applications with features to protect the unit from these demanding applications. Superior lightning and surge protection utilizing dual arrestor technology, grounded to case, eliminating both power supply surges and lightning ground strike transients (surge protection is not guaranteed and is not covered by warranty). Large diameter 316 SS diaphragm seal is non-clogging and damage resistant to floating solids.

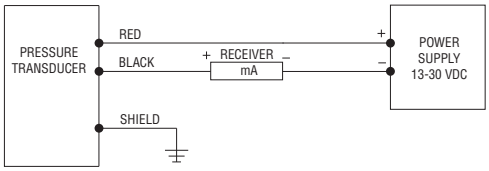
Comes equipped with a 270-pound tensile strength, shielded, vented cable. Ventilation tube in the cable automatically compensates for changes in atmospheric pressure above the tank. The vent tube has a filter attached to the end that will block particles, such as dust, dirt, and water droplets, from entering the tube.

### APPLICATIONS

• Wastewater: sludge pits, clarifiers, digesters; Alum tanks; Chemical storage tanks; Oil tanks; Lime slurry; Sumps; Reservoirs.

### ELECTRICAL INSTALLATION

An external power supply delivering 13-30 VDC with minimum current capability of 40 mA DC (per transmitter) is required to power the control loop. See figure below for connection of the power supply, transmitter and receiver.




The maximum receiver load resistance (RLmax) for the DC power supply voltage (Vsup) is expressed by the formula:

$$RLmax = \frac{Vsup - 13V}{0.02A}$$

Shielded cable is recommended for control loop wiring.

### SPECIFICATIONS

**Service:** Compatible liquids.
**Wetted Materials:** 316 SS, 316L SS, Buna-N, cable: ETFE or polyurethane.
**Accuracy:** ±.25% full scale.
**Temperature Limits:** 0 to 200ºF (-18 to 93ºC).
**Compensated Temperature Range:** 0 to 180ºF (-18 to 82ºC).
**Thermal Effect:** Less than ±.02%/ºF.
**Pressure Limit:** 2X full scale.
**Power Requirement:** 13 to 30 VDC.
**Output Signal:** 4 to 20 mA DC, two wire.
**Response Time:** 50 msec.
**Loop Resistance:** 850 ohms at 30 VDC.
**Electrical Connection:** Wire pigtail.
**Mounting Orientation:** Suspended in tank below level being measured. Can be placed on the bottom of the tank on its side.
**Weight:** 4.3 lb (2.0 kg).
**Electrical Protection:** Lightning and surge protection.

**Model Number Guide**

| Example | PBLT2 | 20 | 40 | | PBLT2-20-40 |
|---|---|---|---|---|---|
| Construction | PBLT2 | | | | Cage style submersible level transmitter, ETFE cable |
| Range | | XXX | | | In psi (5000 psi maximum) |
| Cable Length | | | XXX | | In feet (1500 feet maximum) |
| Options | | | | PU | Polyurethane cable |

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