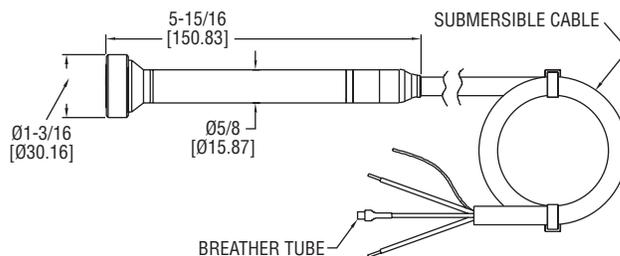




## DeltaSpan LD35 Series Submersible Level Transmitter

### Specifications - Installation and Operating Instructions



The LD35 Series Submersible Level Transmitter is designed with a flush diaphragm tip that will not clog in harsh applications such as sewage lift stations. Narrow body design allows the FBLT to fit into stilling wells and narrow installations. The FBLT features a robust FKM fluoroelastomer diaphragm that is PTFE coated for a stick resistant surface that will hold up in aggressive fluids. The diaphragm cavity is filled with a gel that will not leak out versus oil or grease that our competitors use. Body is constructed of 316 SS and the cable is either polyurethane or ETFE for more corrosive applications.

The unit measures the height of liquid above the position that it is mounted in a tank or pit in reference to atmospheric pressure. Ventilation tube in the cable automatically compensates for changes in atmospheric pressure above the fluid. The vent is protected with a maintenance free filter, eliminating particulate or water droplets from entering the transmitter. For extra protection against humidity, we offer the LD90-3000 desiccant filter that can be attached to the vent tube.

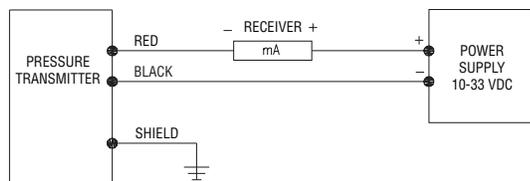
The LD35 Series incorporates lighting and surge protection (not guaranteed or covered by warranty) to stand up in harsh applications.

#### Applications

Sewage lift stations, industrial slurries, industrial sumps, landfill leachate, reservoirs, sludge pits, oil tanks, etc.

#### ELECTRICAL INSTALLATION

An external power supply delivering 10 to 33 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:

$$RL_{max} = \frac{V_{sup} - 10V}{0.02A}$$

Shielded cable is recommended for control loop wiring.

#### MAINTENANCE/REPAIR

Upon final installation of the LD35 Series, no routine maintenance is required. The LD35 Series is not field serviceable and should be returned if repair is needed (field repair should not be attempted and may void warranty).

#### SPECIFICATIONS

**Service:** Compatible liquids.

**Wetted Materials:**

- Body: 316 SS;
- Cable: Polyether polyurethane or ETFE;
- Diaphragm: PTFE coated FKM fluoroelastomer;
- Label: Polyethylene polyamid.

**Accuracy:** ±0.25% FS (absolute).

**Temperature Limits:** -4 to 176°F (-20 to 80°C).

**Compensated Temperature Limits:** 32 to 140°F (0 to 60°C).

**Thermal Effect:** ±0.0075%/°F (±0.0135%/°C).

**Pressure Limit:** 2x range.

**Power Requirements:** 10 to 33 VDC.

**Output Signal:** 4 to 20 mA DC 2-wire.

**Response Time:** < 50 ms.

**Max Loop Resistance:** 1000 Ω @ 30 VDC.

**Electrical Connections:** Wire pigtail.

**Mounting Connection:** Suspended below point being monitored.

**Electrical Protection:** Surge/lightning protected per EN61000-4-5, Class 5.

**Weight:**

- Body: 0.3 lb (0.136 kg);
- Cable: 0.037 lb (0.009 kg) per foot.

**Agency Approval:** CE.

#### Part Number Block

LD35-S101	11.55 ft	Polyurethane
LD35-S111	15 ft	Polyurethane
LD35-S121	20 ft	Polyurethane
LD35-S131	30 ft	Polyurethane
LD35-S201	11.55 ft	ETFE
LD35-S211	15 ft	ETFE
LD35-S221	20 ft	ETFE
LD35-S231	30ft	ETFE

*For complete product documentation, video training, and technical support, go to [www.flowline.com](http://www.flowline.com).*

*For phone support, call 562-598-3015 from 8am to 5pm PST, Mon - Fri.*

*(Please make sure you have the Part and Serial number available.)*

#### **Warranty**

Flowline warrants to the original purchaser of its products that such products will be free from defects in material and workmanship under normal use and service in accordance with instructions furnished by Flowline for a period, which is equal to the shorter of one year from the date of purchase of such products or two years from the date of manufacture of such products. Flowline's obligation under this warranty is solely and exclusively limited to the repair or replacement, at Flowline's option, of the products or components, which Flowline's examination determines to its satisfaction to be defective in material or workmanship within the warranty period. Flowline must be notified pursuant to the instructions below of any claim under this warranty within thirty (30) days of any claimed lack of conformity of the product. Any product repaired or replaced under this warranty will be warranted only for the remainder of the original warranty period.

#### **Returns**

Products cannot be returned to Flowline without Flowline's prior authorization. To return a product that is thought to be defective, go to [www.flowline.com](http://www.flowline.com), and submit a customer return (MRA) request form and follow the instructions therein. All warranty and non-warranty product returns to Flowline must be shipped prepaid and insured. Flowline will not be responsible for any products lost or damaged in shipment.

#### **Limitations**

This warranty does not apply to products which: 1) are beyond the warranty period or are products for which the original purchaser does not follow the warranty procedures outlined above; 2) have been subjected to electrical, mechanical or chemical damage due to improper, accidental or negligent use; 3) have been modified or altered; 4) anyone other than service personnel authorized by Flowline have attempted to repair; 5) have been involved in accidents or natural disasters; or 6) are damaged during return shipment to Flowline. Flowline reserves the right to unilaterally waive this warranty and dispose of any product returned to Flowline where: 1) there is evidence of a potentially hazardous material present with the product; or 2) the product has remained unclaimed at Flowline for more than 30 days after Flowline has dutifully requested disposition. This warranty contains the sole express warranty made by Flowline in connection with its products. ALL IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY DISCLAIMED. The remedies of repair or replacement as stated above are the exclusive remedies for the breach of this warranty. IN NO EVENT SHALL FLOWLINE BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND INCLUDING PERSONAL OR REAL PROPERTY OR FOR INJURY TO ANY PERSON. THIS WARRANTY CONSTITUTES THE FINAL, COMPLETE AND EXCLUSIVE STATEMENT OF WARRANTY TERMS AND NO PERSON IS AUTHORIZED TO MAKE ANY OTHER WARRANTIES OR REPRESENTATIONS ON BEHALF OF FLOWLINE. This warranty will be interpreted pursuant to the laws of the State of California. If any portion of this warranty is held to be invalid or unenforceable for any reason, such finding will not invalidate any other provision of this warranty.

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