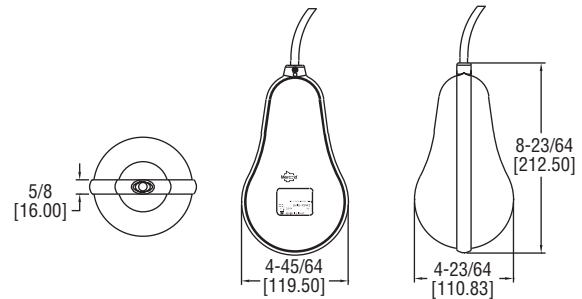


# Switch-Tek LV42 Series Large Float Switch

## Specifications - Installation and Operating Instructions



The LV42 Series Large Float Level Switch is a mercury-free self counterweighted floating switch designed for the automation of pumps, specifically filling and draining of tanks, wells, and reservoirs. The LV42 Series body is free of any irregularities making it ideal for use in sewage water applications. The polypropylene body consists of a double airtight chamber with high-pressure melted polypropylene re-injection sealing to ensure a perfect seal against infiltration. Cable hangers are available to suit a variety of mounting applications. Featuring CE approval, high temperature durability, oil resistance, and drinking water suitability.

### INSTALLATION

The basic operating principle of the LV42 Series is very simple. As fluid level rises the micro-switch located inside the LV42 Series is counter-balanced in such a way that it generates a flipping action in the position of the switch. When fluid level decreases the float starts in an inverted state then positions correctly. This change in position generates a signal that can be used to actuate a motor or signal an indicator alarm. To ensure the proper function of the LV42 Series, it is necessary to secure the electric cable inside the tank or well as illustrated in Figure 1. The length of the cable measured between the fixture point and the body of the LV42 Series should be a minimum of 6 in (15 cm). It is essential to ensure that there are no obstructions in the LV42 Series operational area before operation. During operation, **adjustments to the LV42 Series cable must not be made under any circumstances**, due to the fact that any unwanted cable connections made while the LV42 Series is immersed in water can lead to electric shock.

There is a hanging bracket accessory option available (LV49-9000), for wire arrangement. The bracket allows the cable of the LV42 Series to be held in place at the top of the tank.

**Note:** The LV42 Series is self counterweighted and can be used without the need of additional counterweight, clamp, or bracket. The previous are means to simplify installation and aid in organizing the use of multiple float switches.

### ELECTRICAL CONNECTIONS

SPDT, single pole double throw allows for operation of both increasing and decreasing level, depending on the connections made between the terminals of the micro-switch and the cable. SPDT, a three-conductor cable (without ground option), has one lead that is common, one that is normally open (NO), and the other that is normally closed (NC), for the proper connections of these conductors please refer to the wiring diagrams in Figures 2 and 3.

### SPECIFICATIONS

**Service:** Compatible liquids, slurries.

**Wetted Materials:**

Housing: Polypropylene;  
Cable: PVC.

**Operating Temperature:** -4 to 122°F (-20 to 50°C).

**Pressure Limits:** 29 psi (2 bar).

**Enclosure Rating:** IP68.

**Switch Type:** SPDT.

**Electrical Rating:** 10 (3) A @ 250 VAC.

**Mounting Orientation:** Vertical.

**Shipping Weight:**

Housing: 2.4 lb (1100 g);  
Cable: 0.77 oz (21.27 g) per foot.

**Agency Approval:** CE.

### NOTICE

When making the connections described above, ensure that the maximum motor power does not exceed the values indicated on the level switch. The power supply cable is an important part of the LV42 Series. Should the cable appear to be damaged, discontinue use immediately and proceed to replace the unit. The yellow/green wire found on some units is the ground wire and must be connected to a suitable ground terminal with the dimension greater than 1mm<sup>2</sup>. The terminal used must also be protected against accidental break.

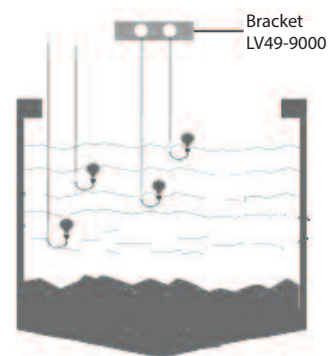
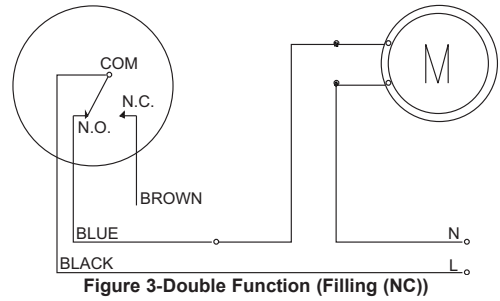
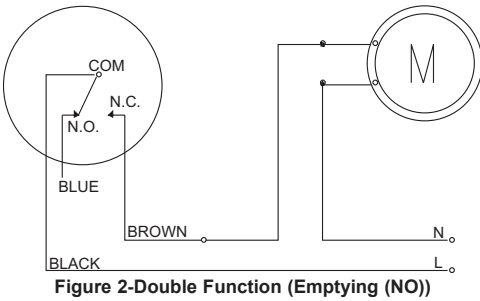


Figure 1: Installation

WIRING DIAGRAMS  
3 x 1 CABLE



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.)

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#### 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

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