

# Switch-Tek™ LP15

Capacitance Liquid Level Switch

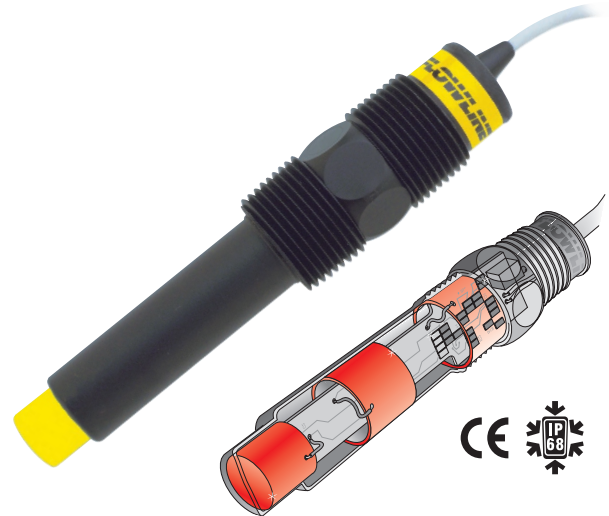


## Application

The general purpose guard capacitance point level switch provides high or low liquid level detection of water based conductive liquids with light coating, crystallizing or scaling characteristics with a 1A relay output. Media examples include copper sulfate and brine. For best performance, install the sensor vertically and the RF guard eliminates the coating signal path between the active and reference electrodes. The submersible PP liquid level sensor can be mounted inside the tank or through non-metallic tank walls as a high level alarm or low level alarm.

## Features

- Guard circuit optimizes performance in coating type media
- Submersible PP sensor body and cable for corrosive liquids
- 60VA SPST relay selectable NO or NC via power supply wiring polarity
- Compatible with Switch-Pak fitting for vertical tank installation



## Key Benefits

- Ideal for use as a high or low level switch in general purpose applications
- Well suited for use in corrosive liquids

## Compatible Products

### SWITCH-PRO™

Remote Level Controller



LC4X

The general purpose remote level controller is offered in three configurations for pump and valve control. The LC40 accepts one level sensor input and provides one 10A relay. The LC41 accepts two level sensor inputs and provides one latching 10A relay for automatic fill or empty control. The LC42 accepts three level sensor inputs with one latching 10A relay output for automatic fill or empty control, and a second non-latching 10A relay for high or low level alarm. For field mount installation, add a single or dual indicator NEMA box.

### SWITCH-PRO™

Compact Level Controller



LC1X

The general purpose compact level controller is offered in two configurations for pump and valve control. The LC10 accepts one level sensor input and provides one 16A relay for high level control or low level control. The LC11 accepts two level sensor inputs and provides one latching 16A relay for automatic fill or empty control. The optional flash alarm brings attention to alarm conditions. Package this level controller with our liquid level switch sensors and fittings.

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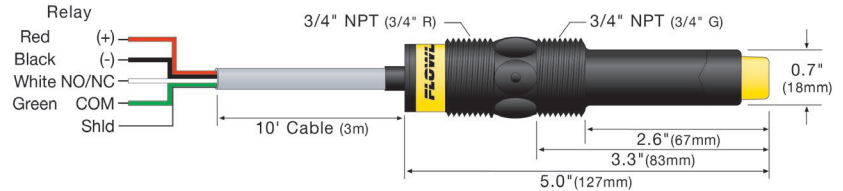
Capacitance Liquid Level Switch



## Specifications

|                          |   |
|--------------------------|---|
| <b>Orientation:</b>      | Universal   |
| <b>Accuracy:</b>         | ± 1mm in water  |
| <b>Repeatability:</b>    | ± 0.5mm in water  |
| <b>Dielectric range:</b> | > 20 constants  |
| <b>Conductive range:</b> | > 100 µ   |
| <b>Supply voltage:</b>   | 12-36 VDC   |
| <b>Consumption:</b>      | 25 mA maximum   |
| <b>Contact type:</b>     | (1) SPST relay  |
| <b>Contact rating:</b>   | 60 VA, 1A maximum   |
| <b>Contact output:</b>   | Selectable NO / NC  |
| <b>Process temp.:</b>    | F: -40° to 176°<br>C: -40° to 80°   |
| <b>Pressure:</b>         | 150 psi (10 bar) @<br>25° C, derated @ 1.667<br>psi (0.113 bar) per °C<br>above 25° C |
| <b>Sensor rating:</b>    | NEMA 6 (IP68)   |
| <b>Sensor material:</b>  | Polypropylene   |
| <b>Cable jack. mat.:</b> | Polypropylene   |
| <b>Cable type:</b>       | 4-conductor, shielded, #22<br>AWG   |
| <b>Cable length:</b>     | 10' (3m)  |
| <b>Process mount:</b>    | 3/4" NPT (3/4" G / Rp)  |
| <b>Mount. gasket:</b>    | Viton®  |
| <b>Classification:</b>   | General purpose   |
| <b>Compliance:</b>       | CE  |

## Dimensions



## Fittings



### P/N DESCRIPTION

#### Switch-Pak™ Fitting Components

|                  |  |
|------------------|--|
| <b>LM45-7001</b> | 2" NPT plug fitting, 3/4" NPT nipple, PVC  |
| <b>LM45-1001</b> | 2" NPT plug fitting, 3/4" NPT nipple, PP   |
| <b>LM45-5001</b> | 2" NPT plug fitting, 3/4" NPT nipple, PVDF |

#### Smart Trak™ Fitting Components

|                  |   |
|------------------|---|
| <b>LM10-1201</b> | 2' track, 2" NPT plug fitting, 3/4" NPT nipple, PP  |
| <b>LM10-1401</b> | 4' track, 2" NPT plug fitting, 3/4" NPT nipple, PP  |
| <b>LM10-1601</b> | 6' track, 2" NPT plug fitting, 3/4" NPT nipple, PP  |
| <b>LM10-1801</b> | 8' track, 2" NPT plug fitting, 3/4" NPT nipple, PP  |
| <b>LM10-1001</b> | 10' track, 2" NPT plug fitting, 3/4" NPT nipple, PP |
| <b>LM10-1101</b> | 1m track, 2" NPT plug fitting, 3/4" NPT nipple, PP  |
| <b>LM10-1301</b> | 2m track, 2" NPT plug fitting, 3/4" NPT nipple, PP  |
| <b>LM10-1701</b> | 3m track, 2" NPT plug fitting, 3/4" NPT nipple, PP  |

#### Smart Trak™ Level Switch Car Kit

|                  |                                    |
|------------------|------------------------------------|
| <b>LM30-1001</b> | Level switch car kit, 3/4" NPT, PP |
| <b>LM30-1061</b> | Level switch car kit, 3/4" Rp, PP  |

## Ordering

LP15 - 14  5

### PROCESS MOUNT (1) (2)

|          |                 |
|----------|-----------------|
| <b>0</b> | NPT (US)        |
| <b>2</b> | G / Rp (Metric) |

## NOTES

- 1) To special order a 25' (7.6m) or 50' (15.2 m) level sensor cable, place the cable length at the end of the part number (ie: LP15-1405-25'). For PP, add \$50 for 25' (7.6m) or \$100 for 50' (15.2m) to the price.
- 2) The long Metric level sensor has straight G threads on the sensing side and conical Rp threads on the cable side of the wrench flat.