# Switch-Tek<sup>™</sup> LU10

Ultrasonic Liquid Level Switch



# **Application**

CSA approved for use in hazardous locations, the intrinsically safe ultrasonic level switch provides high or low liquid level detection of chemical, solvent or low viscosity petroleum based liquids with a 1A relay output. Media examples include hydrochloric acid, acetone and diesel fuel oil. The submersible PP or PFA level switch sensor is universally mounted through the tank wall or inside the tank, and connected to a PLC or relay controller.

# **Features**

- CSA approved intrinsically safe for use in hazardous environments
- Submersible polypropylene or PFA Teflon® sensor and cable for corrosive liquids
- 60VA SPST relay selectable NO or NC via power supply wiring polarity
- Compatible with Smart Trak and Switch-Pak installation fittings



# **Key Benefits**

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

# **Compatible Products**



LC4X

#### SWITCH-PRO™

Remote Level Controller

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.



LC1X

#### SWITCH-PRO™

Compact Level Controller

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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# **Specifications**

Orientation: Universal

Accuracy: ± 1mm in water

Repeatibility: ± 0.5mm in water

Supply voltage: 12-36 VDC

Consumption: 25 mA maximum

Contact type: (1) SPST relay

Contact rating: GP: 60 VA

IS: 32 VDC @ 0.5A

Contact output: Selectable NO / NC
Process temp.: F: -40° to 176°

C: -40° to 80°

Pressure: 150 psi (10 bar) @

25° C, derated @ 1.667 psi (0.113 bar) per °C

above 25° C

Sensor rating: -1XX5: NEMA 6 (IP68)

-2XX5: NEMA 4X (IP65)

Sensor material: -1XX5: PP

-2XX5: PFA

Cable jack. mat.: -1XX5: PP

-2XX5: PFA

Cable type: 4-conductor, shielded, #22

AWG

Cable length: 10' (3m)

**Process mount:** 3/4" NPT (3/4"" G / Rp)

Mount. gasket: Viton®

Classification: Intrinsically safe
Certificate: CSA, LR 79326

Compliance: CE

Approvals: Class I, Groups A, B, C

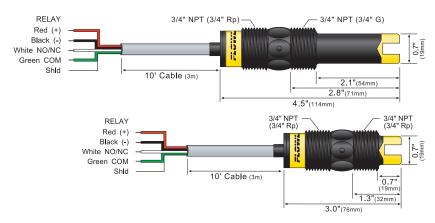
& D; Class II, Groups E,

F & G; Class III

Parameters: Vmax = 32V, Imax = 300

mA, Pmax = 1.3W, Ci = 0  $\mu$ F, Li = 0  $\mu$ H

# **Dimensions**



# **Fittings**

#### P/N DESCRIPTION

# Switch-Pak™ Fitting Components LM45-7001 2" NPT plug fitting,

 LM45-7001
 2" NPT plug fitting, 3/4" NPT nipple, PVC

 LM45-1001
 2" NPT plug fitting, 3/4" NPT nipple, PVDF

 LM45-5001
 2" NPT plug fitting, 3/4" NPT nipple, PVDF

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## Smart Trak™ Fitting Components

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



2m track, 2" NPT plug fitting, 3/4" NPT nipple, PP 3m track, 2" NPT plug fitting, 3/4" NPT nipple, PP



## Smart Trak™ Level Switch Car Kit

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

# Ordering SENSOR MATERIAL (1) 1 PP 2 PFA SENSOR LENGTH 3 Short 4 Long

# PROCESS MOUNT (2)

- 0 NPT (US)
- 2 G / Rp (Metric)

# **NOTES**

- 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: LU10-1305-25'). For PP, add \$50 for 25' (7.6m) or \$100 for 50' (15.2m) to the price. For PFA, add \$200 for 25' (7.6m) or \$400 for 50' (15.2m) to the price.
- The short Metric level sensor has conical Rp threads on both sides of the wrench flat. 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.