# Stem Mounted Multi-Point Level Switch
# Series: FL

The Series FL Stem Mounted Multi-Point Level Switch is designed to meet demanding customer applications for liquid level sensing in rugged hostile environments. Each FL is manufactured to the users specifications, making it fit to work precisely according to the application requirements. FLE's have one, two, or three switches built in 5/16" Ø 316L stainless steel stems up to 48" in length, perfect for precise level control in small vessels. FLR switches use stronger 0.50" Ø 316L stainless steel stems, which allows for lengths up to 153" (12.75 feet), and up to seven switch points.

## Features

- Custom tailored to user specifications
- Long switch life
- Multiple float styles and specific gravity options
- Up to seven switch points

# FL Series Specifications

## Performance

- FLR: 7 Switch Points
  Min. distance between levels: 3 inches (76.2 mm)
- FLE: 3 Switch Points
  Min. distance between levels: 2 inches (50.8 mm)

## Environmental

- Operating Temperature:
  14° to 212°F (-10° to 100°C)
- CSA Operating Temperature
  -40° to 185°F (-40° to 85°C)

## Certification

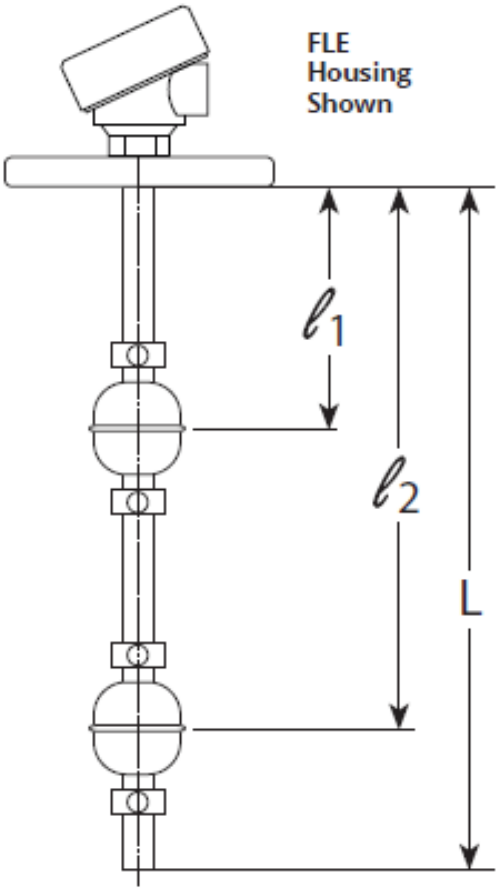
- FLE:
  NEMA 4 & 7, IP65, IP43
- FLR:
  CSA/cCSAus General Purpose
  Max operating ambient 85°C
  NEMA 4 & 7, IP65

## Electrical

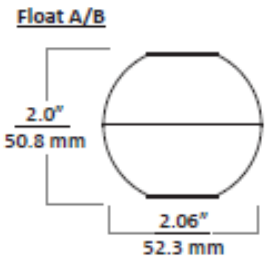
- Switch Rating:
  FLE: 20 VA, 50 VA
  FLR: 50 VA, 180 VA
- Max Current:
  0.5 A AC
- Max Voltage:
  220 VAC

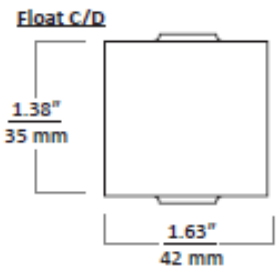
## Physical

- Maximum Stem Length:
  FLE: 48 inches (1219.2 mm)
  FLR: 153 inches (3886.2 mm)
- Stem Diameter:
  FLE: 5/16 inch (7.9 mm)
  FLR: 0.5 inch (12.7mm)
- Cable Entry:
  FLE: 3/4 inch
  FLR: 3/4 inch
- Wetted Material:
  316L Stainless Steel

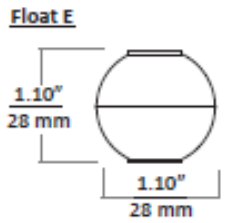


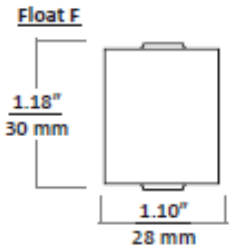

FLR Floats




FLE Floats



# FLR Model Configuration Options

Model Number: FLR - ____ ____ - ____ - ____ - ____ - ____ - ____
A B C D E F G

## A. Mounting Type

- ☐ **0A** Flat face ANSI flange 150#
- ☐ **3SF** Triclamp
- ☐ **4T** NPT plug mounted from outside of tank

## B. Mounting Size

- ☐ **1.5*†** (NPT plug only)
- ☐ **2*** (Flange, Triclamp, or NPT plug)
- ☐ **2.5*** (Flange or NPT plug)
- ☐ **3*** (Flange or NPT plug)

* Note: Add an 'S' after mount size for Slide Connection
† Note: 1.5 NPT plug requires floats C or D.

## C. Housing

- ☐ **H3** NEMA 4 & 7, IP65 (3/4 in. cable entry)
- ☐ **W__** No housing, mounting option with 3/4 NPT plug and lead wires 1 - 15 feet in 1 foot increments

## D. Reed Switch

- ☐ **B** 50 VA
- ☐ **C** 180 VA

## E. Number of Switch Points

- ☐ **1-7** Select the number of switch points required

## F. Float Type

- ☐ **A** 316L SS (2.06 in. diameter, 0.59 SG)
- ☐ **B** 316L SS (2.06 in. diameter, 0.92 SG)
- ☐ **C** 316L SS (1.63 in. diameter, 0.607 SG)
- ☐ **D** 316L SS (1.63 in. diameter, 0.92 SG)

## G. Probe Length (in.)

- ☐ __ inches (up to 153 in.)

## Switch Point Location(s)

(Measured from process connection)

- ☐ **1** ____ inches (designate NO or NC position)
- ☐ **2** ____ inches (designate NO or NC position)
- ☐ **3** ____ inches (designate NO or NC position)
- ☐ **4** ____ inches (designate NO or NC position)
- ☐ **5** ____ inches (designate NO or NC position)
- ☐ **6** ____ inches (designate NO or NC position)
- ☐ **7** ____ inches (designate NO or NC position)

Note: Allow at least 2 inches from fixed process connection to first switch location (up to 6 inches for slide connections), 3 inches between switch locations, and 2 inches from last switch location to bottom of probe.

# FLE Model Configuration Options

Model Number: FLE - ____ ____ - ____ - ____ - ____ - ____ - ____ - ____
A B C D E F G

## A. Mounting Type

- ☐ **0A** Flat face ANSI flange 150#
- ☐ **3SF** Triclamp
- ☐ **4T** NPT plug mounted from outside of tank

## B. Mounting Size

- ☐ **1.5** (NPT plug only)
- ☐ **2** (Flange, Triclamp, or NPT plug)
- ☐ **2.5** (Flange or NPT plug)
- ☐ **3** (Flange or NPT plug)

## C. Housing

- ☐ **H3** NEMA 4 & 7, IP65 (3/4 in. cable entry)
- ☐ **B3** Non-metallic housing, IP43 (3/4 in. cable entry)
- ☐ **W__** No housing, mounting option with 3/4 NPT plug and 12 or 36 inch lead wires

## D. Reed Switch

- ☐ **A** 20 VA
- ☐ **B** 50 VA

## E. Number of Switch Points

- ☐ **1-3** Select the number of switch points required

## F. Float Type

- ☐ **E** 316L SS (1.10 in. diameter, 28mm, 0.65 SG)
- ☐ **F** 316L SS (1.18 in. x 1.10 in. cylinder, 0.78 SG)

## G. Probe Length (in.)

- ☐ __ inches (up to 48 in.)

## Switch Point Location(s)

(Measured from process connection)

- ☐ **1** ____ inches (designate NO or NC position)
- ☐ **2** ____ inches (designate NO or NC position)
- ☐ **3** ____ inches (designate NO or NC position)

Note: Allow at least 1.25 inches from process connection to first switch location, 2 inches between switch locations, and 1.25 inches from last switch location to bottom of probe.