## FL - Magnetic Float Level Sensors



The FL Magnetic 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.

## Features

- Custom tailored to user specifications
- Long switch life
- Up to seven switch points


## FL General Specifications

## loll Performance

- FLR: 7 Switch Points

Min. distance between levels: 1.75 in. (45mm)

- FLE: 3 Switch Points


## Connectivity

- Output: 4-20 mA, Resistive


## Environmental

- Operating Temperature: $14^{\circ}$ to $212^{\circ} \mathrm{F}\left(-10^{\circ}\right.$ to $\left.100^{\circ} \mathrm{C}\right)$


## Certification

- FLE:

NEMA 4 \& 7, IP65
IP43

- FLR:

NEMA 4 \& 7, IP65


## Electrical

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


## Physical

- Stem Length: FLE: 24 in. (610 mm) FLR: 153 in. ( 3900 mm )
- Cable Entry:

FLE: 1/2 in. / 3/4 in. FLR: $1 / 2$ in. / 3/4 in.

## Float AA



Float BB


Float K


## Options

Part Number: FLR - $\qquad$ $-\quad-$ $-$ $\qquad$ $-$ $\qquad$ $-$ $\qquad$ $-$ $\qquad$ $-\frac{}{I}$

## A. Mounting Type

$\square 0 \quad$ Flat face flange
$\square \mathbf{1}$ Raised face flange
$\square 2$ Slide adapter
$\square 3$ 3A Sanitary ferrule
$\square 4$ Plug mounted from outside of tank
$\square 5$ Plug mounted from inside of tank

## B. Mounting Option and Size

$\square \mathbf{A}$ Ansi flange 150\# (size $=2,2.5,3,4$ )
$\square$ J JIS flange $10 \mathrm{~kg} / \mathrm{cm} 2$ (size=2)
$\square$ D DIN flange $10 \mathrm{~kg} \mathrm{~cm} 2($ size $=50$ )
$\square$ SF 3A Sanitary ferrule (size=2, 2.5, 3, 4)
$\square \mathbf{T} \quad$ NPT plug (size $=1.5,2,2.5,3,4$ )
(inside size $=0.25,0.5,0.75,1,1.5,2$ )
$\square \mathbf{G} \quad$ PF plug $($ size $=2,2.5,3)$
(inside size $=0.75,1,1.5,2$ )
$\square \mathbf{R} \quad$ RT plug (size $=2,2.5,3$ )
(inside size $=0.75,1,1.5,2$ )
$\square$ Other
C. Material
$\square$ S 304 SS
S6 316L SS
D. Housing
$\square$ H1 NEMA 4 \& 7, IP65 (1/2 in. canle entry)
$\square$ H3 NEMA $4 \& 7$, IP65 (3/4 in. cable entry)
$\square \mathbf{W} \quad$ No housing, mounting option with 3/4 NPT plug and 12 in . lead wires

## E. Reed Switch

$\square$ A 50 VA
$\square \mathbf{C} \quad 180$ VA

## F. Number of Switch Points

$\square$ 1-7 Select the number of switch points required

## G. Number of Floats

$\square$ 1-7 Select the number of floats required

## H. Float Type

$\square \mathbf{K} \quad$ Buna (for A reed switch only)
$\square$ AA 316L SS (2.06 in. diameter)
$\square$ BB 316L SS (1.63 in. diameter)

## I. Probe Length (in./mm)

$\square \mathbf{L}_{-} \quad$ in./mm

## Switch Point Location(s)

(Measured from process connection)
$\square \mathbf{1} \quad \mathrm{in} . / \mathrm{mm}$ (designate NO or NC position
$\qquad$ in./mm (designate NO or NC position
$\qquad$ in./mm (designate NO or NC position
$\qquad$ in./mm (designate NO or NC position in./mm (designate NO or NC position
$\square 6$ $\qquad$ in./mm (designate NO or NC position
$\square 7$ $\qquad$ in./mm (designate NO or NC position

## Options

Part Number: FLE - $\qquad$ $-\frac{}{D}$ $-$ $\qquad$ $-$ $\qquad$ - $\qquad$ $-$ $\qquad$ $-$ $\qquad$

## A. Mounting Type

$\square \mathbf{0}$ Flat face flange
$\square 1$ Raised face flange
$\square 3$ 3A Sanitary ferrule
$\square 4$ Plug mounted from outside of tank
$\square 5$ Plug mounted from inside of tank
$\square 6$ OL flange
$\square 7$ OL housing

## B. Mounting Option and Size

$\square$ A Ansi flange 150\# (size=2, 2.5, 3, 4)
$\square$ J JIS flange $10 \mathrm{~kg} / \mathrm{cm} 2$ (size=2)
$\square$ SF 3A Sanitary ferrule (size=2, 2.5, 3, 4)
$\square \mathbf{T} \quad$ NPT plug (size $=1.5,2,2.5,3,4$ )
(inside size $=0.25,0.5,0.75,1,1.5,2$ )
$\square \mathbf{G} \quad$ PF plug $($ size $=2,2.5,3)$
(inside size $=0.75,1,1.5,2$ )
$\square \mathbf{R} \quad$ RT plug (size $=2,2.5,3$ )
(inside size=0.75, 1, 1.5, 2)
$\square \mathbf{X} \quad$ Other
C. Material
$\square \mathbf{S} 304$ SS
S6 316L SS

## E. Reed Switch

$\square$ A 20 VA
$\square \mathbf{C} 50 \mathrm{VA}$

## F. Number of Switch Points

$\square$ 1-3 Select the number of switch points required
G. Number of Floats
$\square$ 1-3 Select the number of floats required

## H. Float Type

$\square \mathbf{K} \quad$ Buna (for A reed switch only)
$\square$ AA 316L SS (2.06 in. diameter)
$\square$ BB 316 L SS (1.63 in. diameter)

## I. Probe Length (in./mm)

$\square \mathbf{L}_{-} \quad$ in./mm

## Switch Point Location(s)

(Measured from process connection)
$\square 1$ $\qquad$ in./mm (designate NO or NC position
$\square 3$ $\qquad$ in./mm (designate NO or NC position
D. Housing
$\square$ H1 NEMA 4 \& 7, IP65 (1/2 in. canle entry)
$\square$ H3 NEMA $4 \& 7$, IP65 (3/4 in. cable entry)
$\square$ B1 Non-metallic housing, IP43
( $1 / 2$ 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 in . lead wires

