



## FS 1 – Liquid Level Float Sensor



Certificate: ATEX



### Technical Parameters:

Model	IM2 Ex ia I
Nominal voltage	48 V/DC from a safety transformer
Nominal current	2A/DC, 4A /AC
Service life	12,000 switches-on
Ambient temperature	+1°C - 80°C
Protection	IP 68
Dimensions	casing diameter 75 mm length 123 mm standard conductor length 10 m
Weight	1.3 kg

### Use:

A FS 1 level float sensor is designed for switching on and off regulating and signalling circuits depending on the liquid level height.

Its structure enables its utilisation in heavy industrial plants in environments with high air humidity, for submerging even in mechanically contaminated liquids with the specific gravity up to  $1.4 \text{ g/cm}^3$  at the temperature range from  $+1^\circ\text{C}$  to  $80^\circ\text{C}$ . It can be used for all fireproof liquids.

It is made with the IP 68 protection and also intended for use in environments with a methane explosion hazard as a IM2 Ex ia I model for deep mines. It is used for checking inundation of mine galleries and together with JPB-BOS to control a pump.

### Description:

AFS 1 float sensor is turned over when submerged to a liquid by the effect of upward lift and weight, and a micro-switch switches on or disconnects contacts. The level differential necessary for turning over the float is 160–180 mm.

The sensor conductor is fixed to the tank above its maximum level. For special cases, when the level differential can be up to 5 m, we recommend placing the sensor behind a partition which calms down flow of the liquid or fixing it to the tank wall.

When used for sensing levels in the environment with a methane explosion hazard in the mine underground the float sensor is placed to a special structure fixed to the gallery supports at places where we would like to sense inundation of mine galleries.

**The catalogue has only those selected important parameters for your final decision. For project designs always ask for the user's guide for this product and any engineering consultation about possible uses.**