

# MODEL FS

## WIDE DIFFERENTIAL FLOAT SENSOR



### Features

- Direct pump control
- Adjustable ON/OFF switching levels
- Unaffected by magnetic fields
- Simple installation

### General Description

The Model FS is a simple float sensor designed for top mounting in open tanks or vessels. The FS can be installed by bulkhead, screw-in or flange mounting. Control range is adjustable from 60mm to 1500mm. This sensor is designed for use as a reliable component in hydraulic units, boilers, magnetic cooling equipment, irrigation systems, etc. The model FS is an economical solution for emptying and filling control.

### Operational Description

The model FS consists of a micro-switch operated by a vertical rod and float mechanism. The float freely moves between upper and lower stoppers which are fixed on the rod at the customer's requested points. As the liquid level rises, the float moves up until it reaches to the upper stopper. The rod will then be pushed up by the buoyancy of float, and the micro switch will be operated. When the liquid level falls, the float moves down until it reaches to the lower stopper. Then the rod will be fallen down by the weight of the float, and the micro switch operation will be reversed. A spring mechanism attached to the rod is designed to provide mechanical hysteresis. During the float traveling on the rod, the operating state of micro switch is held until the float reaches the upper or lower stoppers.

The stoppers on the rod can be adjusted to obtain desired switching range, and the 5A rated, single-pole, double-throws switch makes the model FS suitable for either empty or full operations.

### Installation Notes

Installation of the model FS is extremely simple and easily accomplished. When installing the switch, the following points should be noted:

1. The spring operation tension is factory set, but may require adjustment on site, especially if the length of the operating rod is changed. Correct operation should be checked and the spring tension adjusted if necessary.
2. It is important that the shaft and rod be mounted so that their axis is truly vertical.

## Specifications

Model	FS-2S	
Drawing		
Mounting	Equivalent JIS5K50A t=2	
Contact rating	1 SPDT, 250V 5A AC, 125V 0.6A DC (Resistive)	
Operating Temperature	Housing	0°C to 55°C
	Wetted parts	0°C to 80°C
Life expectancy	4 × 10 <sup>5</sup> Operations	
Material	Float	304SS
	Rod	304SS
	Stopper	304SS
	Flange	304SS
	Bellows	Neoprene (Option: Silicon)
	Housing	Phenol (Cover: Polypropylene)
Cable Entry	Equivalent JIS F 20a (G3/4)	
Protection	IP42	
Minimum S.G.	0.85	
Operating differential	60mm to 850mm (at L=1000mm)	

## Ordering Information

FS-2S	
N	Neoprene: Standard
S	Silicone
500	500mm
1000	1000mm
1500	1500mm
□□□□	Specify the rod length (150~1500mm)
FS-2S	N 500 = FS-2S-N-500