

MODEL FE

ELECTRODE LEVEL SENSOR



Features

- Usable in a wide range of liquids
- Up to 6 points detection
- Safe low voltage and small currents
- Switch points easily adjusted in field
- Simple to install and adjust large terminal enclosure for wiring

General Description

The FE series of level sensors are designed for point level indication of conductive liquids. Used in conjunction with one or more RE7000 relays, the FE can reliably detect up to 6 separate levels in tanks up to 6 meter deep.

Operating levels can be easily changed in the field by cutting the length of the electrodes. The material of electrode is selected from 316SS, Hastelloy B and C, and Titanium for the chemical compatibility.

Operational Description

A typical system consists of three major components, an electrode holder, the electrodes, and a relay unit.

The electrode holder serves as a mechanical support for the electrodes and electrically insulates them from the tank. The electrodes are vertically mounted to the holder, above the liquid, with their lower ends positioned at the required actuation levels. The relay unit provides the voltage and current required (8V, 5mA AC Max.) for sensing as well as suitable relay outputs.

Applications

The FE series can be used in any suitable, conductive liquids. Applications involve both alarm point detection and pump valve control. Since the FE series contain no moving parts, it is very reliable and can be used in tanks where mixers or other moving equipment would damage ordinary float switches or level detectors.

Electrode Selection

Material	Model		
	316SS	FE□2	FE22
Hastelloy B	FE□3B	FE23B	FE83B
Hastelloy C	FE□3C	FE23C	FE83C
Titanium	FE□4	FE24	FE84

The electrode material can be selected according to liquids.

- 316SS : Water, Ammonia, Caustic soda, etc.
- Hastelloy B: Hydrochloric acid, etc.
- Hastelloy C: Low temp. Hydrochloric acid, Sulfuric acid, etc.
- Titanium : Seawater, High temp. & Concentrated Nitric acid, Ferric chloride, etc.

Specifications

Model	FE2	FE22	FE82
Description	Standard	with SS flange	Tread mounting
Drawing			
Max. Poles	7	7	6
Mounting	JIS10K100A (4 holes)	JIS10K100A (4 holes)	G2
Operating Temperature	-20°C to 50°C	-20°C to 100°C Option 150°C Max.	-20°C to 50°C
Maximum Pressure	Atmospheric	1MPa /10 bar	Atmospheric
Material	Housing	ABS	PVC
	Mounting	PVC* ¹	PVC
	Electrode	316SS, Hastelloy B, Hastelloy C, Titanium	
	Insulation Tube	Polyolefin* ¹	
Cable entry		JIS F 20a (G3/4)	
Protection	IP45* ²	IP45* ²	IP43* ²

*¹Other materials are available.

*²IP65 is optionally available.