

FK10

Conductive Level Switch

- Easy installation
- Sturdy, heavy-duty plastic or stainless steel housing
- Process connection of plastic or stainless steel
- Electrode stems made of stainless steel, titanium and Hastelloy C
- Single or multiple electrodes (up to 5 switching points)
- Low-cost OEM model available
- Electrode relay for limit values, pump control or pump control with overflow and dry-running protection (see FK01 / FKE data sheet)



Description:

Model series FK10 conductive level switches are intended to be used with the FKE electrode relay for detecting the level of conductive fluids. An A.C. voltage is applied to an electrode insulated from the tank. When the electrode is wetted by the process fluid, a low current flows from the electrode through the fluid to the tank wall (in the case of plastic tanks, the current flows to a ground electrode). This current flow is detected by the electrode relay and output as a switching signal.

Typical Applications:

- To detect the fill limit in tanks containing conductive fluids
- To report whether the tank is empty or full
- To switch over between two filling heights
- To provide overflow protection
- To provide dry-running protection

Benefits:

- No moving parts
- Not influenced by specific gravity of fluid

Models:

- FK10.1:** Single/multiple-electrode designs with mounting thread at plastic housing
Stainless steel housing with plastic or stainless steel mounting thread
- FK10.2:** OEM design with plastic (Delrin) housing as a one- or two-electrode sensor probe, process connection (1/2" or 1"), and stainless steel electrode(s) with permanently attached connection cable (3 m PUR)

Technical Specifications:

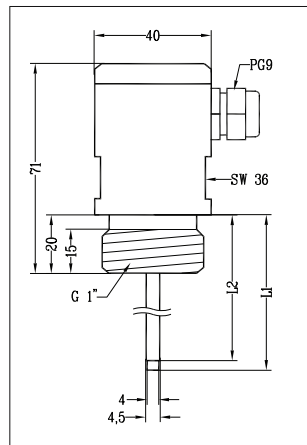
- Max. pressure:** 10 bar (plastic);
20 bar (stainless steel)*
- Max. temperature:** -20°C...90°C (plastic);
-20°C...100°C (stainless steel)
-40°C...150°C (stainless steel)
- Protection type:** IP65 (FK10.1)
IP68 (FK10.2)

*)suitable for vacuum applications

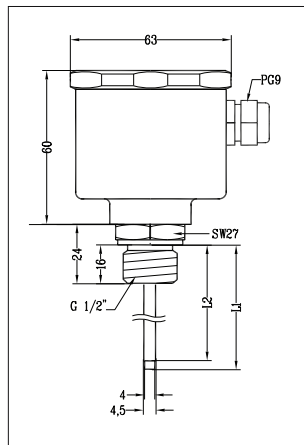
Materials:

- Housing:** Delrin, polypropylene,
PTFE, stainless steel 1.4571
- Process connection:** Delrin, polypropylene,
PTFE, stainless steel 1.4571
- Sensor stem:** Stainless steel 1.4404, Hastelloy C, titanium
- Coating:** Polyamide, Halar (PTFE)

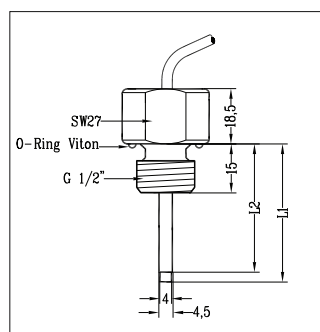
Dimensions:



FK10.1.1.15.1... (plastic)



FK10.1.6 .15.1... (stainless steel)



Model Coding:

Order Number: FK10. 1. 1. 15. 1. 1. 1. 1. LA

Conductive Level Switch

Model:

- 1 = Standard
2 = OEM design
(minimum order: 20 units;
available upon request)

Materials for connector housing / Process connection:

- 1 = Delrin (standard)
2 = Delrin / stainless steel 1.4571
3 = Polypropylene, small
4 = Polypropylene, small / stainless steel 1.4571
5 = Polypropylene, large
6 = Polypropylene, small / stainless steel 1.4571
7 = PTFE, small
8 = PTFE, small / stainless steel 1.4571
9 = PTFE, large
10 = PTFE, large / stainless steel 1.4571
11 = Stainless steel 1.4571 / stainless steel 1.457

Process connection:

- 15 = G1/2 thread (max. 1 electrode)
25 = G1 thread** (max. 3 electrodes)
2 electrodes with stainless steel connection
32 = G1 1/4 (stainless steel connection only, max. 4 electrodes)
40 = G1 1/2 thread (max. 5 electrodes)
50 = G2 thread (max. 7 electrodes)
F50 = DIN DN50 flange

Number of electrodes:

1...7

Electrode material:

- 1 = Stainless steel 1.4404 (standard)
3 = Hastelloy C (4 mm diameter only)***
4 = Titanium (4, 8, 10 mm diameters only)***

Electrode diameter:

- 1 = 4 mm (standard)
2 = 6 mm
3 = 8 mm
4 = 10 mm

Electrode insulation:

- 1 = Polyamid (standard)
2 = Halar (PTFE)

Electrode length (from edge of seat)

LA = length 500 mm
LB = length 1,000 mm
LS = Special order
Example of ordering notation: L₁300 / L₂400 / L₃500, etc.

** max. two electrodes with stainless steel thread
*** with electrode isolation from Halar only