

# 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, Hastelloy B or 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)

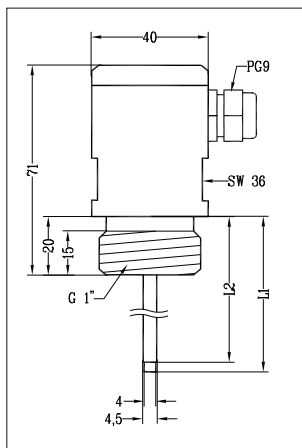
## Technical Specifications:

- Max. pressure:** 10 bar (plastic);  
20 bar (stainless steel)
- Max. temperature:** -20°C...90°C (plastic);  
-20°C... 100°C (stainless steel)
- Protection type:** IP65 (FK 10.1)  
IP68 (FK 10.2)

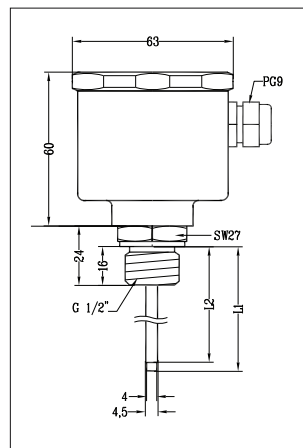
## Materials:

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

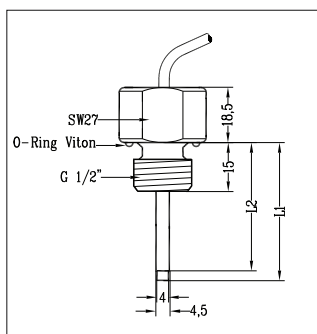
## Dimensions:



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:

- 0 = Delrin (OEM-design only)  
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)  
32 = G1 1/4 (stainless steel connection  
only, max. 4 electrodes)  
40 = G1 1/2 thread (max. 5 electrodes)  
50 = G2 thread  
F50 = DIN DN50 flange

#### Number of electrodes:

1...5

#### Electrode material:

- 1 = Stainless steel 1.4404 (standard)  
2 = Hastelloy B (4 mm diameter only)\*\*  
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: L<sub>1</sub>300 / L<sub>2</sub>400 / L<sub>3</sub>500, etc.

\* max. two electrodes with stainless steel thread

\*\* with electrode isolation from Halar only

PKP Prozessmesstechnik GmbH

Borsigstraße 24 · D-65205 Wiesbaden

+49 (0) 6122-7055-0 · +49 (0) 6122-7055-50  
Email: info@pkp.de · Internet: www.pkp.de

PKP Process Instruments Inc.

10 Brent Drive · Hudson, MA 01749

+1-978-212-0006 · +1-978-568-0060  
Email: info@pkp.eu · Internet: www.pkp.eu

