



# ***Instruction Manual***

## ***FS00***

*Float level switch*



PKP Prozessmesstechnik GmbH  
Borsigstraße 24  
D-65205 Wiesbaden-Nordenstadt  
Tel.: ++49-(0)6122-7055-0  
Fax: ++49-(0)6122-7055-50  
Email: [info@pkp.de](mailto:info@pkp.de)

## ***Contents***

---

1 Introduction	2
2 Safety Information	2
3 Functional Description	3
4 Installation	3
5 Electrical Connection, Connection Cable, Dimensions	3
6 Specifications: See data sheet in the appendix	

## ***1 Introduction***

---

Series FS00 float level switches are noted for their reliable function and easy operation. To obtain the greatest benefit from this device, please observe the following cautionary statement: **Persons who are responsible for setting up or operating this device must be sure to read the and understand the operating instructions and the safety information pertaining to it.**

## ***2 Safety Information***

---

### ***2.1 General Instructions***

To ensure safe operation, the device must only be operated according to the information in the operating instructions. When the device is in use, the regulations and safety standards applicable to the specific application must also be observed. This statement also applies to the use of accessories.

### ***2.2 Proper Usage***

Series FS00 float level switches are used for monitor the level of liquid media. Any application extending beyond this specific intended use does not constitute proper usage. Series FS00 float level switches must not be employed as the sole means of avoiding hazardous conditions in machinery and installations. The machinery and installations must be designed in such a manner that faulty conditions and malfunctions will not present hazardous situations for operating personnel.

### ***2.3 Qualified Personnel***

Series FS00 float level switches must only be used by qualified, knowledgeable personnel trained in correct use of these devices. Qualified personnel are those persons familiar with setting up and assembling these devices, placing them in service and operating them. In addition, such personnel must also be qualified to perform the work associated with the application for which the device is being used.

### ***3 Functional Description***

---

The FS00 float switch functions according to the general principle describing the buoyancy of floating bodies. A hollow float is raised by the rising liquid until it reaches an angle of 45° from horizontal, where a switching action takes place. The FS00 consists of a float made of polypropylene with a water-proof, position-dependent electromechanical microswitch. The floats in this series are fitted with cables made of various materials and of varying lengths.

### ***4 Installation***

---

The switch can be attached with screws to the side of a container. In the case of an open container, it can be suspended in the container from above. The switching point can be set by moving the optional weights.

### ***5 Electrical Connection, Connection Cable, Dimensions***

---

For information on these specifications, see the data sheet in the appendix to this description.

# FS00

## Float Level Switch

- **low-cost version**
- **simple installation**
- **vertical or horizontal mounting**
- **high switching rate, 10 (8) A, 250 VAC**
- **N/O, N/C or SPDT version available**
- **different cable materials, medium dependent**
- **max. temperature: 95 °C**



### Description:

The float level switches FS00 work according to the lift principle.

A hollow float is raised by the rising liquid until it reaches an angle of 45 ° from horizontal when switching takes place. The mercury free float switch can be mounted to the tank or container via a through hole such as a 1/2" cable gland or from the tank top. The switch point is defined by manipulating placement of an optional ballast weight on the connecting cable or by inserting cable through a tube of the desired length.

The FS00 level switch consists of a polypropylene housing with an integrated watertight and position dependent electromechanical microswitch. Cable connections from different materials and in different lengths may be chosen to suit the medium and tank dimensions.

### Typical applications:

The FS00 float level switches are compatible to virtually all liquid media which do not affect the materials of the switch or cable. The unit is absolutely independent from the pollution of the medium. The FS00 may be used as MIN, MAX monitor, to control valves or pumps or as an alarm switch.

## Material and Contact Function:

**Materials:** PP housing, mirror welded capnut PG 11 made of PA connection cable according to order code

**Contact function:**  
based on rising level

**FS00.S...** N/O, 10 (8) A, 250 VAC  
color: red  
**FS00.O...** N/C, 10 (8) A, 250 VAC  
color: yellow  
**FS00.W...** SPDT, 6 (4) A, 250 VAC  
color: orange

## Connection Cable:

3-wire for N/O and N/C, 4-wire for SPDT

### Cable material:

**Neoprene** black  
standard cable for general use  $T_{max}$ : 40 °C  
**Polyurethane** yellow (3-wire), orange (4-wire)  
for mineral oil / gasoline,  $T_{max}$ : 40 °C  
**TPE FD special** green  
for bio oil and -grease, chemicals,  
 $T_{max}$ : 95 °C  
**Special cable** on request

## Electrical connection:

**FS00.S...** brown = COM  
blue = signal (switched on by full tank)  
green / yellow = protective ground  
**FS00.O...** brown = COM  
blue = signal (switched on by empty tank)  
green / yellow = protective ground  
**FS00.W...** brown = COM  
blue = Signal (switched on by full tank)  
black = signal (switched on by empty tank)  
green / yellow = protective ground

## Technical Data:

**Operating temperature:** max. 40 °C, with TPE FD special cable up to 95 °C  
**Storage temperature:** max. 95 °C  
**Max. pressure:** 2 bar  
**Switching angle:**  $\pm 45^\circ$   
**Protection class:** IP68  
**Weight:**  
float: 110 g  
ballast weight: ca. 330 g  
**Medium density:** min. 0,8 g/cm<sup>3</sup>

## Order Code:

<b>Order number:</b>	FS00.	S.	N.	5.	1.	0
<b>Level float switch</b>						
<b>Contact function:</b>	S = N/O (on rising level) O = N/C (on rising level) W = SPDT					
<b>Cable material:</b>	N = Neoprene (up to 40 °C) P = Polyurethane (PUR, up to 40 °C) L = TPE FD special (up to 95 °C) S = special material					
<b>Cable length:</b>	5 = 5 m 10 = 10 m 20 = 20 m 99 = special length					
<b>Options:</b>	0 = with 9 = please specify in plain text					

## Accessory:

### Ballast Weight FS00-Z.G:

**Material:** filled polyamide (black)  
**Dimensions:** 30 x 34 x 190 mm  
**Weight:** approx. 330 g

## Dimensions:

