



Instruction Manual

FS00

Float level switch



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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

Ballast Weight:

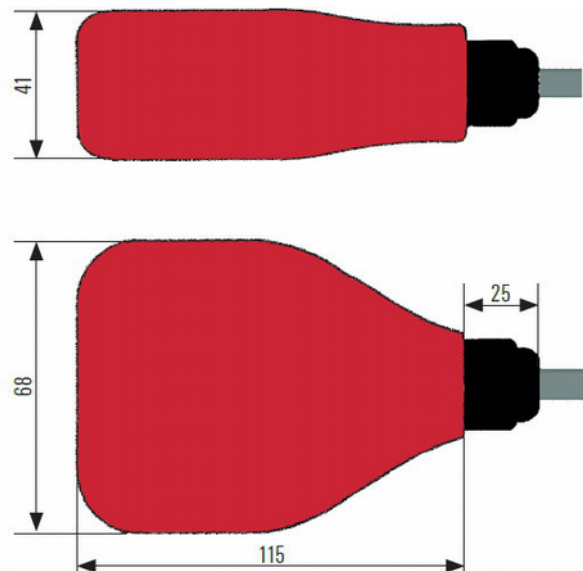
Material: filled polyamide (black)

Dimensions: 30 x 34 x 190 mm

Order Code:

Order number:	FS00.	S.	N.	5.	1.	0
Level float switch						
Contact function:	S = N/O (on rising level) O = N/C (on rising level) W = SPDT					
Cable material:	N = Neoprene (up to 40 °C) P = Polyurethane (PUR, up to 40 °C) L = TPE FD special (up to 95 °C) S = special material					
Cable length:	5 = 5 m 10 = 10 m 20 = 20 m 99 = special length					
Ballast weight:	0 = without 1 = with					
Options:	0 = with 9 = please specify in plain text					

Dimensions:



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: ± 45°
Protection class: IP68
Weight:
float: 110 g
ballast weight: ca. 330 g
Medium density: min. 0,8 g/cm³