

# Suspended float switch

## For water and wastewater

### Model RLS-6000

WIKA data sheet LM 50.09

#### Applications

- Wastewater lifting stations
- Pumping stations
- Settling pits
- Particle-laden media

#### Special features

- Adjustable switch position through screw-adjustable float
- Switch rod actuator, potential-free reed switch
- Switch contact freely definable as normally closed, normally open or change-over contact
- Also reliable in strongly contaminated media

#### Description

The model RLS-6000 suspended float switch is used for monitoring strongly contaminated media, e.g. in wastewater lifting stations and pumping stations. The adjustable float rises and falls with the liquid level and moves the float rod depending on the level. When the float rod reaches the end position in the case, the magnet at the end of the float rod actuates the reed switch potted inside.

The triggering of the reed contacts by the permanent magnet is contact-free and thus free from wear. The float can be mounted and adjusted via a screw connection. This enables easy installation and fine adjustment of the desired switch point over a length of ~ 50 mm (~ 2.0 in).



Suspended float switch, model RLS-6000

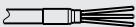
Due to the special mechanical design of the float system, the model RLS-6000 float switch is also suitable for adhesive media. Due to the large-dimension float body, adhesions will not affect the function of the float switch. During maintenance, cleaning as required can prevent a too strong ballasting of the float by deposits.

## Specifications

Suspended float switch, model RLS-6000				
<b>Measuring principle</b>	Potential-free switching reed contact is triggered by a magnet at the end of the switch rod.			
<b>Measuring ranges</b>	Sensor length: Freely selectable from 150 ... 1,000 mm (6 ... 39.2 in)			
<b>Switching output</b>	1 switching output, alternatively normally open (NO), normally closed (NC) or change-over (SPDT) contact - on rising level  2 switching outputs on request			
<b>Switch position</b>	see "Dimensions in mm (in)" L - 10 mm (0.4 in)			
<b>Switching power</b>	Normally open, normally closed: AC 100 V; 10 VA; 0.5 A DC 100 V; 10 W; 0.5 A  Change-over contact: AC 100 V; 5 VA; 0.25 A DC 100 V; 5 W; 0.25 A			
<b>Accuracy</b>	±3 mm (~0.12 in) switch point accuracy incl. hysteresis, non-repeatability			
<b>Mounting position</b>	Vertical			
<b>Process connection</b>	G ½			
<b>Float model</b>	<b>Outer Ø D</b>	<b>Height</b>	<b>Density</b>	<b>Material</b>
■ up to 499 mm (19.6 in) sensor length	60 mm (2.4 in)	90 mm (3.5 in)	≥ 1,000 kg/m <sup>3</sup> (62.4 lbs/ft <sup>3</sup> )	PP
■ from 500 mm (19.7 in) sensor length	100 mm (3.9 in)	170 mm (6.7 in)	≥ 1,000 kg/m <sup>3</sup> (62.4 lbs/ft <sup>3</sup> )	PP
<b>Max. pressure strength</b>	Ambient pressure			
<b>Material</b>	Probe tube: Stainless steel 316Ti Float: PP Process connection: PVC  Case: PVC Electrical connection: See table below			
<b>Permissible temperatures</b>	-10 ... +60 °C (14 ... 140 °F) -10 ... +60 °C (14 ... 140 °F) -10 ... +60 °C (14 ... 140 °F)			
■ Medium				
■ Ambient				
■ Storage				

Electrical connections	Ingress protection per IEC/EN 60529	Protection class	Material	Cable length
Cable outlet	IP66	II	PVC	■ 2 m (6.5 ft)
Cable outlet	IP66	II	PUR	■ 5 m (16.4 ft) other lengths on request

## Connection diagram

Cable outlet		
	Normally open/normally closed (NO/NC)	Change-over contact (SPDT)
	<b>S1</b> WH —┐ BN —┘	<b>S1</b> WH —┐ BN —┘ GN —┘

### Legend

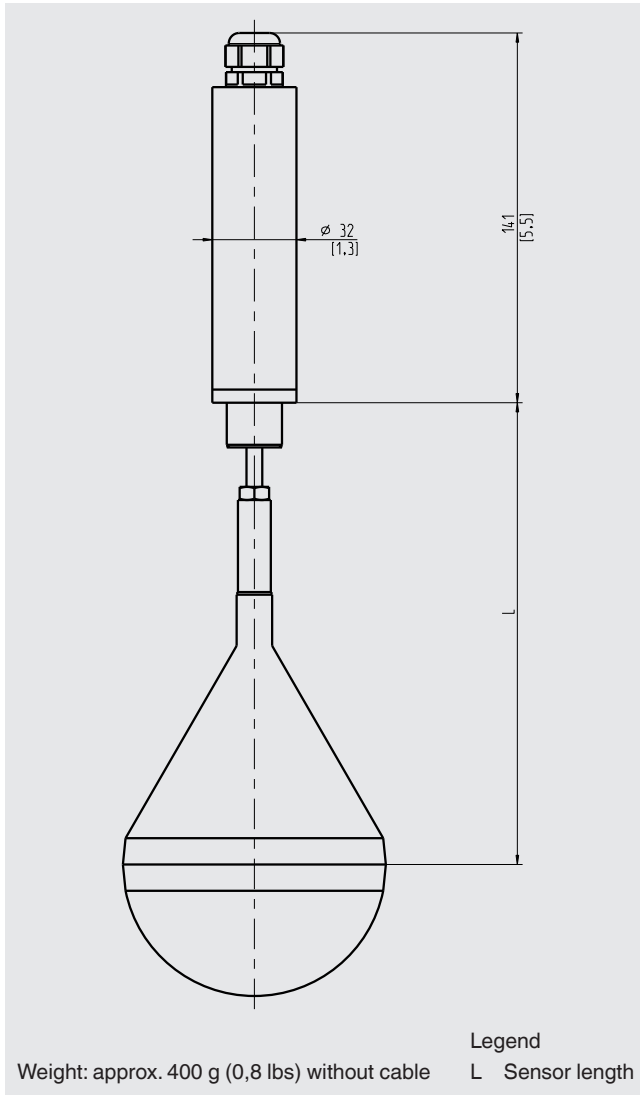
S1	Switch point 1
WH	White
BN	Brown
GN	Green

## Electrical safety

Insulation voltage

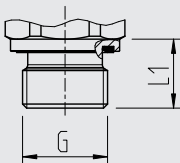
DC 2,120 V

## Dimensions in mm (in)



## Process connection

Installation from outside



G

L<sub>1</sub>

G ½

12 mm

## Approvals

Logo	Description	Country
	<b>EU declaration of conformity</b> <ul style="list-style-type: none"><li>■ Low voltage directive</li><li>■ RoHS directive</li></ul>	European Union

## Manufacturer's information and certificates

Logo	Description
-	China RoHS directive

Approvals and certificates, see website

## Ordering information

Model / Switching function / Electrical connection / Cable length / Sensor length

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