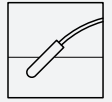


# Float Switch

## LFL2-BK-U-PUR10-EMS



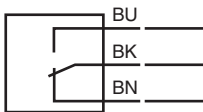
- Switch element: microswitch, **mercury-free**
- Limit value detection for fluids
- Ball design: high buoyancy



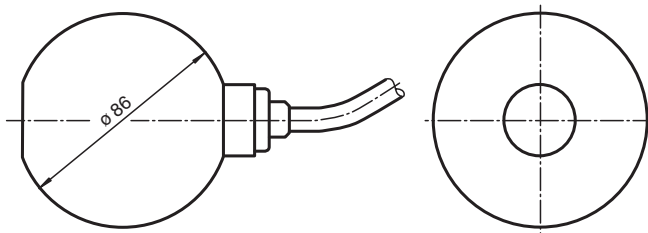
### Function

The microswitch (change-over contact) is integrated in a PP float and is activated in the event of deviations from the horizontal position. The switching ball in the float, which moves along an axis, activates the microswitch.

### Connection



### Dimensions



### Technical Data

#### Electrical specifications

Contact loading	250 V AC/3 A; 150 V DC/0.25 A resistive load; 60 V DC/1 A resistive load
Rated insulation voltage	300 V

Release date: 2020-10-05 Date of issue: 2020-10-05 Filename: 288564\_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0002  
pa-info@us.pepperl-fuchs.com

Germany: +49 621 776 2222  
pa-info@de.pepperl-fuchs.com



Singapore: +65 6779 9091  
pa-info@sg.pepperl-fuchs.com

 **PEPPERL+FUCHS**

## Technical Data

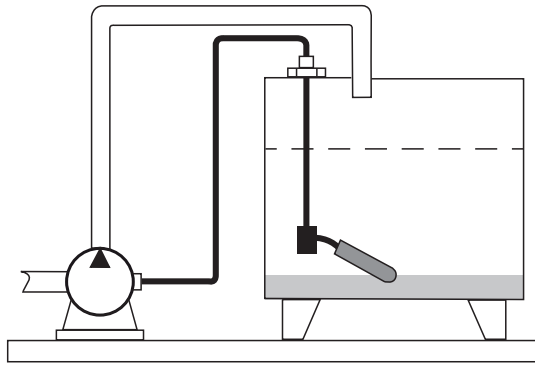
Pulse withstand voltage	4 kV
Electrical life	≥ 5 x 10 <sup>4</sup> switching cycles
<b>Directive conformity</b>	
Low voltage	
Directive 2014/35/EU	EN 60947-5-1:2004 + Cor.:2005 + A1:2009
<b>Conformity</b>	
Degree of protection	IEC 60529:2001
<b>Application</b>	
Description	microswitch with switching ball, change-over contact
<b>Function and system design</b>	
Equipment architecture	This device may be used with any sequential circuit, as long as the circuit can support the electrical circuit values of the switching elements.
<b>Operating conditions</b>	
Installation conditions	
Installation instructions	range of application and minimum length between mounting and float: ≥ 100 mm (4 inch), preferred for fuels, heating oils, oily fluids mounting: The float switch is mounted by means of a counter weight or rods (e. g. float switch combination) from the top. The pivot of the cable should always be horizontal.
Process conditions	
Process pressure (static pressure)	≤ 2 bar (29 psi) at 20 °C (68 °F)
Density	≥ 0.6 g/cm <sup>3</sup>
<b>Ambient conditions</b>	
Ambient temperature	5 ... 70 °C (41 ... 158 °F)
Storage temperature	-25 ... 70 °C (-13 ... 158 °F)
Altitude	≤ 2000 m above MSL
<b>Mechanical specifications</b>	
Degree of protection	IP68
Cable	
Length	L 10 m
<b>Mechanical construction</b>	
Material	float: PP (Polypropylene) cable: PUR, highly flexible (3 x 0.50 mm <sup>2</sup> )
Switching point	switch angle, measured against the horizontal: - upper switch point +25° ±10° - lower switch point -14° ±10°
<b>General information</b>	
Supplementary information	Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .

## Accessories

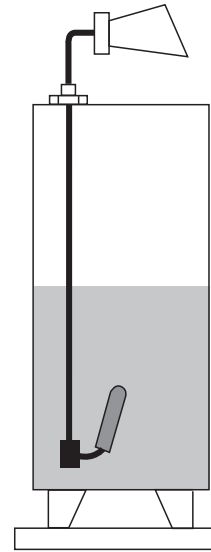
	<b>LFL-Z132-EMS</b>	Gland screw connection
	<b>LFL-Z32-EMS</b>	Ballast weight for float switch

## Application

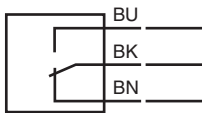
### Level control via pump



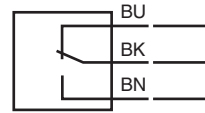
### Level message via switching signal



### Minimum fail safe mode connection



### Maximum fail safe mode connection



## Mounting

Mount the float switch in the following way:

- Insert the float switch into the tank through a tapped hole G1A.
- Screw the float switch with the gland screw connection G1A.
- If it is installed from above, use the counter weight LFL-Z32 or LFL-Z33 for mounting.



*The fulcrum of the cable should always be horizontal.*

*The cable length between the fixture and the floating body is dependent on the cable type.*

*When using the counter weight, place an extra strain relief (e. g. a knot in the cable) behind the gland screw connection – on the outside of the tank.*



# SCATTERGOOD & JOHNSON LTD

ELECTRICAL ENGINEERING & FLUID CONTROL DISTRIBUTORS

Est.1899

At Scattergood & Johnson Ltd, we pride ourselves on being a technical distributor to specialist industries.

Working with a range of quality product manufacturers across a number of specialist markets, we are not your average 'box shifter' - we are your technical and supply chain partner.

We fully support every product we sell - for free! Our internal team and external sales engineers can answer any product or application question, no matter the complexity.

Backing up this technical ability is a range of 50,000+ products available from stock for nationwide next day delivery (same day if required!), or you can collect what you need from any of our trade counters around the UK.

Select your specialist interest below to learn more about how we can help.



Online, In Branch and On the Road - Scattergood & Johnson Ltd, there when you need us.

# [www.scatts.co.uk](http://www.scatts.co.uk)