



Model Number

LFL2-CK-U-PUR5-EMS

Features

- **Switch element:** microswitch, mercury-free
- **Limit value detection for fluids**
- **Sleeve design:** small diameter, mounting through G1 tap hole possible

Description

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.

Accessories

LFL-Z132-EMS

Gland screw connection

LFL-Z32-EMS

Ballast weight for float switch

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
Pulse withstand voltage	4 kV
Electrical life	$\geq 5 \times 10^4$ switching cycles

Directive conformity

Low voltage	
Directive 2014/35/EU	EN 60947-5-1:2004 + Cor.:2005 + A1:2009

Conformity

Degree of protection	IEC 60529:2001
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Application

Description	microswitch with switching ball, change-over contact
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Function and system design

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.
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Operating conditions

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 either from sideways through a cable gland $\geq G1A$ into the vessel or - 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)	≤ 3 bar (43.5 psi) at 20 °C (68 °F)
Density	≥ 0.8 g/cm ³

Ambient conditions

Ambient temperature	5 ... 70 °C (41 ... 158 °F)
Storage temperature	-25 ... 70 °C (-13 ... 158 °F)
Altitude	≤ 2000 m above MSL

Mechanical specifications

Degree of protection	IP68
Cable	
Length	L 5 m

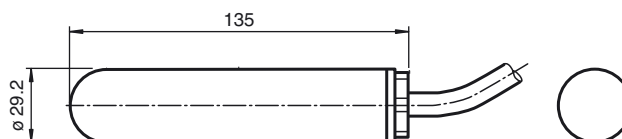
Mechanical construction

Material	float: PP (Polypropylene) cable: PUR, highly flexible (3 x 0.50 mm ²)
Switching point	switch angle, measured against the horizontal: - upper switch point +25° $\pm$ 10° - lower switch point -14° $\pm$ 10°

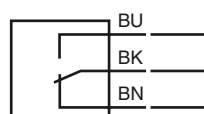
General information

Supplementary information	Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com .
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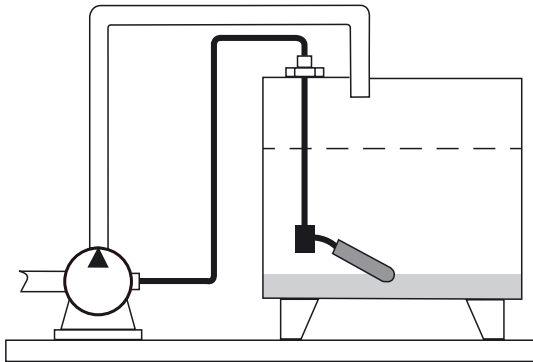
Dimensions



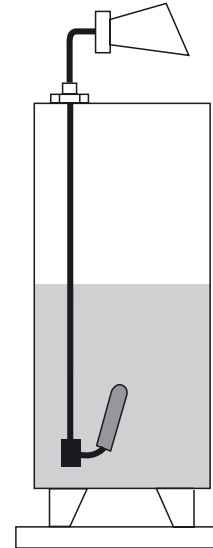
Electrical Connection



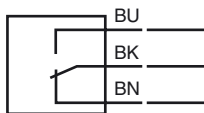
Level control via pump



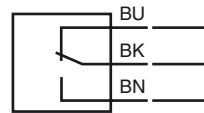
Level message via switching signal



Minimum fail safe mode connection



Maximum fail safe mode connection



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.



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- 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.*