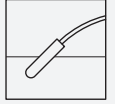


Float Switch

LFL2-CK-U-TPK5-EMS



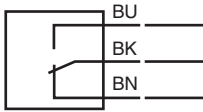
- Switch element: microswitch, **mercury-free**
- Limit value detection for fluids
- Sleeve design: small diameter, mounting through G1 tap hole possible



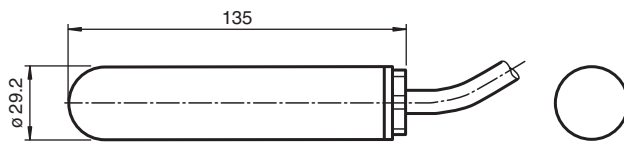
Function

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

General specifications	
Series	LFL2-**-U
Construction type	sleeve design
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 60947-5-1:2017
Conformity	
Degree of protection	IEC 60529:2001

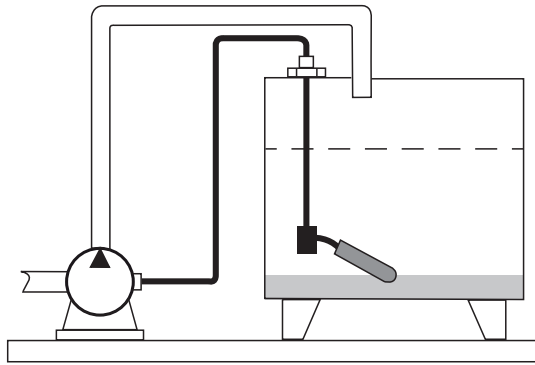
Release date: 2025-07-02 Date of issue: 2025-07-02 Filename: 70139369_eng.pdf

Technical Data

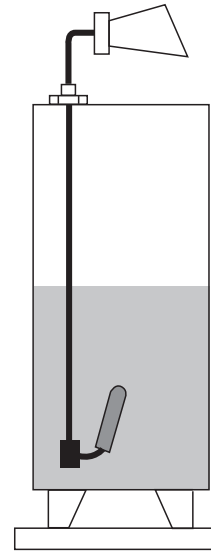
Application		
Description		microswitch with switching ball, change-over contact
Function and system design		
Equipment architecture		This device may be used with any sequential circuit, as long as the circuit can support the electrical circuit values of the switching elements.
Approvals and certificates		
CCC approval		Certified by China Compulsory Certification (CCC)
Operating conditions		
Installation conditions		
Installation instructions		range of application and minimum length between mounting and float: ≥ 100 mm (4 inch), preferred for many acids and lyes 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: TPK (3 x 0.75 mm ²)
Switching point		switch angle, measured against the horizontal: - upper switch point $25^\circ \pm 10^\circ$ - lower switch point $6^\circ \pm 6^\circ$
General information		
Supplementary information		Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com .

Application

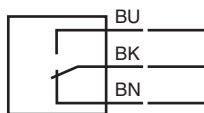
Level control via pump



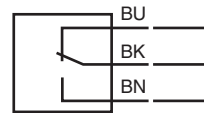
Level message via switching signal



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.

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