Float Switch

LFL2-CK-U-TPK5-EMS

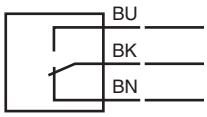
- Switch element: microswitch, **mercury-free**
- Limit value detection for fluids
- Sleeve design: small diameter, mounting through G1 tap hole possible

CE

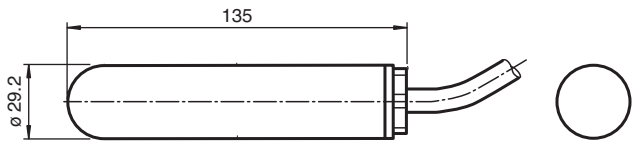
Function

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
Electrical specifications	

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Technical Data

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		≥ 5 x 10^4 switching cycles
Directive conformity		
Low voltage		
Directive 2014/35/EU		EN 60947-5-1:2017
Conformity		
Degree of protection		IEC 60529:2001
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.
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 sidewards through a cable gland ≥ 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° ±10° - lower switch point -14° ±10°
General information		
Supplementary information		Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com.

Accessories

	**LFL-Z132-EMS**	Gland screw connection
	**LFL-Z32-EMS**	Ballast weight for float switch

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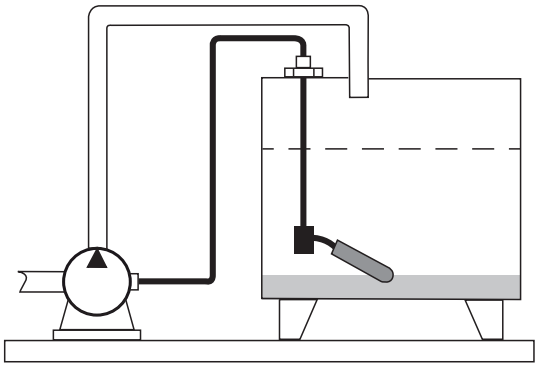
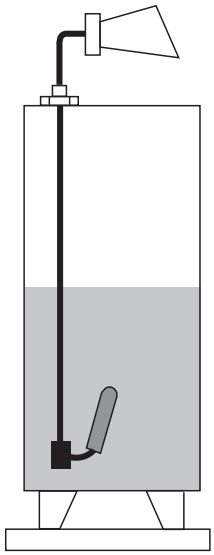
Application

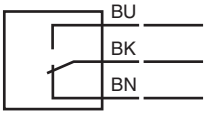
Level control via pump



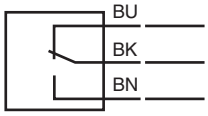
Level message via switching signal



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.
- Srcew 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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