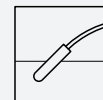




Float Switch

LFL2-BK-U-PUR5-EMS

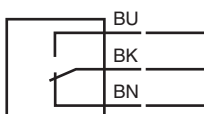
- Switch element: microswitch, **mercury-free**
- Limit value detection for fluids
- Ball design: high buoyancy



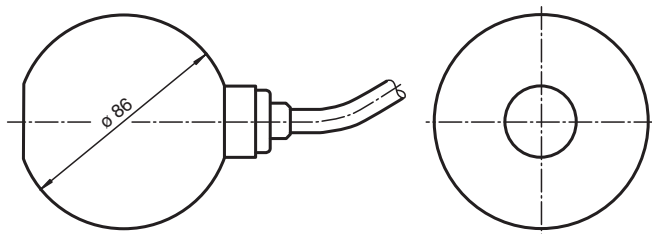
Function

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

Technical Data

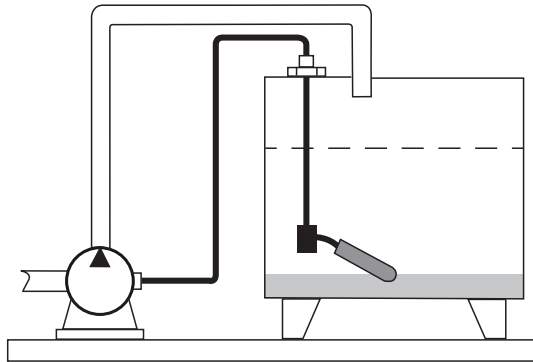
Rated insulation voltage	300 V
Pulse withstand voltage	4 kV
Electrical life	$\geq 5 \times 10^4$ switching cycles
Directive conformity	
Low voltage	
Directive 2014/35/EU	EN 60947-5-1:2004 + Cor.:2005 + A1:2009
Conformity	
Degree of protection	IEC 60529:2001
Application	
Description	microswitch with switching 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 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 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 $+25^\circ \pm 10^\circ$ - lower switch point $-14^\circ \pm 10^\circ$
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 .

Accessories

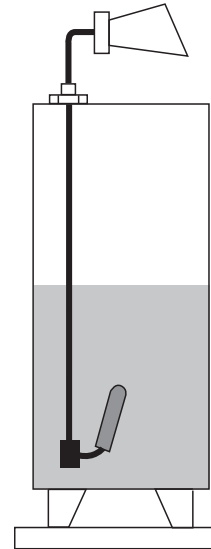
	LFL-Z132-EMS	Gland screw connection
	LFL-Z32-EMS	Ballast weight for float switch

Application

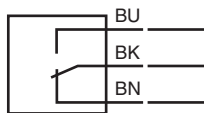
Level control via pump



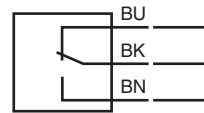
Level message via switching signal



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.