

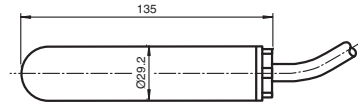
Features

- Switch element: Micro switch, **mercury-free**
- Limit value detection for fluids
- Sleeve design: small diameter, mounting through G1 tap hole possible
- Ball design: high buoyancy

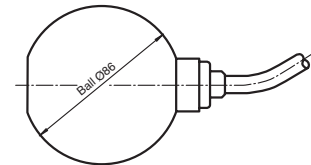
Function

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.

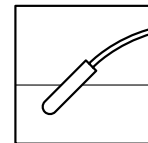
Assembly



Sleeve design LFL2-CK-U



Ball design LFL2-BK-U



Connection

| | | |
|---------------|---|---------------------|
| Cable colours | = | when potential-free |
| black-brown | = | contact open |
| black-blue | = | contact closed |

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

| | |
|------------------------------------|---|
| 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 |
| Directive conformity | |
| Low voltage | |
| Directive 2006/95/EC | 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 | <p>range of application and minimum length between mounting and float:</p> <ul style="list-style-type: none"> - PVC version: ≥ 50 mm (2 in), preferred for water - PUR version: ≥ 100 mm (4 in), preferred for fuels, heating oils, oily fluids - CSM/CM version: ≥ 100 mm (4 in), preferred for many acids and lyes <p>mounting:</p> <ul style="list-style-type: none"> - The float switch is mounted either from sideways through a cable gland ≥ G1A into the vessel or - by means of a counter weight or rods (e. g. float switch assembly) from the top. <p>The pivot of the cable should always be horizontal.</p> |
| Process conditions | |
| Process pressure (static pressure) | <p>sleeve design: ≤ 3 bar at 20 °C (68 °F)</p> <p>ball design: ≤ 2 bar at 20 °C (68 °F)</p> |
| Density | <p>sleeve design: ≥ 0.8 g/cm³</p> <p>ball design: ≥ 0.6 g/cm³</p> |
| Ambient conditions | |
| Ambient temperature | <p>PVC version: 5 ... 70 °C (41 ... 158 °F)</p> <p>PUR version: 5 ... 70 °C (41 ... 158 °F)</p> <p>CSM/CM version: -20 ... 70 °C (-4 ... 158 °F)</p> |
| Storage temperature | -25 ... 70 °C (-13 ... 158 °F) |
| Altitude | ≤ 2000 m above MSL |
| Mechanical specifications | |
| Degree of protection | IP68 |
| Mechanical construction | |
| Material | <p>float: PP (Polypropylene)</p> <p>cable:</p> <ul style="list-style-type: none"> - PVC version: PVC cable, highly flexible (3 x 0.75 mm²) - PUR version: PUR cable, highly flexible (3 x 0.50 mm²) - CSM/CM version: CSM/CM cable (chlorinated polyethylene, (3 x 0.75 mm²)) |
| Switching point | switch angle: upper switching point +25° (±10°), lower switching point -14° (±16°), measured against the horizontal |
| 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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Pepperl+Fuchs Group
www.pepperl-fuchs.com

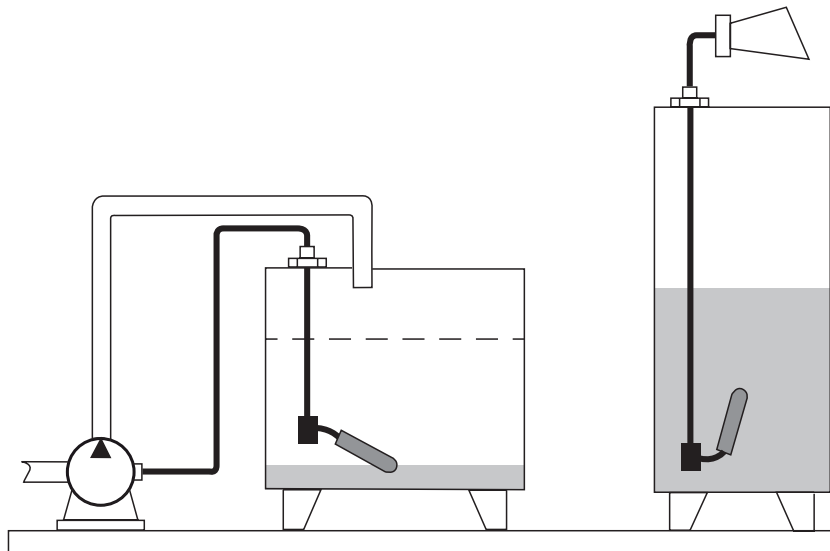
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Application

Controlling pumps and valves with one switch or signal level height or limit



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.

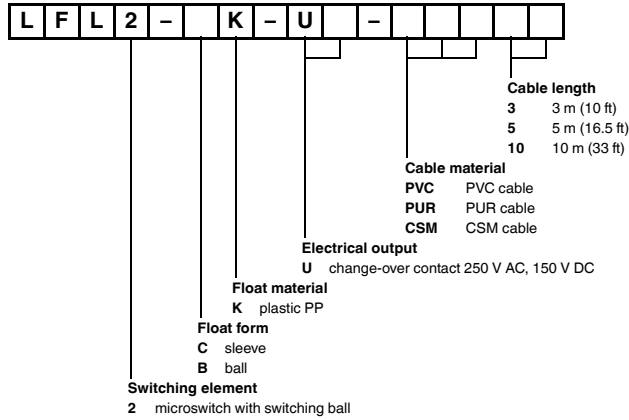
The cable length between the fixture and the floating body is dependent on the cable type.

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.

Accessories

- LFL-Z231, counter nut, G1A, PVC
- LFL-Z32, counter weight, grey cast iron with plastic coating (Polycarbonate)
- LFL-Z33, counter weight, grey cast iron with ECTFE coating (Halar)
- LFL-Z131, gland screw connection G1A, PVC
- LFL-Z132, gland screw connection G1A, brass
- LFL-Z161, gland screw connection G2A, PVC
- LFL-Z431, gland screw connection 1 NPT, PVC
- LFL-Z432, gland screw connection 1 NPT, brass
- LFL-Z461, gland screw connection 2 NPT, PVC

Type code/model number



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