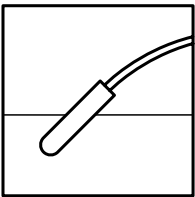


Float switch



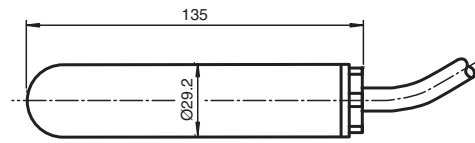
LFL1-**-W*



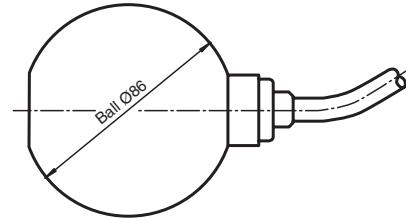
Features

- Switching element: floating switch with initiator, **mercury-free**
- Electrical connections 2-wire, 20 V AC ... 264 V AC
- Limit value detection for fluids
- Sleeve design: small diameter, mounting through G1 tap hole possible
- Ball design: high buoyancy

Dimensions



Sleeve design LFL1-CK-W*



Ball design LFL1-BK-W*

Function

The initiator 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 switching event in the initiator inductively. The switch output provided by the initiator is a mechanical contact (20 V AC ... 264 V AC).

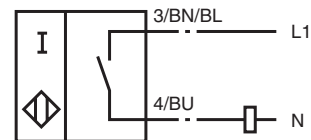
- Version WO open while potential-free up
- Version WS closed while potential-free up

Electrical connection

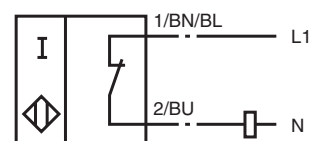
Cable colours
brown or black
blue

= L1
= N

WS



WO



Application	
Description	inductive proximity switch with switching ball WS = floating up closing, normally open WO = floating up opening, normally closed
Function and system design	
Equipment architecture	A measuring system consists of a float switch LFL1-**-W* and a load switched in series.
Auxiliary energy	
Supply voltage	20 ... 264 V AC
Current consumption	5 ... 200 mA
Voltage drop	approx. 8 V
No-load supply current	1.7 mA
Reverse polarity protection	yes
Short-circuit protection	no
Operating conditions	
Mounting conditions	
Installation instructions	range of application and minimum length between mounting and float: - PVC version: ≥ 50 mm (2 in), preferred for water, waste water, slightly aggressive liquids - 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 mounting: - 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. - The pivot of the cable should always be horizontal.
Process conditions	
Process temperature	PVC version: 5 ... 70 °C (278 ... 343 K) PUR version: -20 ... 70 °C (253 ... 343 K) CSM/CM version: -20 ... 70 °C (253 ... 343 K)
Process pressure (static pressure)	sleeve design: ≤ 3 bar at 20 °C (293 K) ball design: ≤ 2 bar at 20 °C (293 K)
Density	sleeve design: ≥ 0.8 g/cm ³ ball design: ≥ 0.6 g/cm ³
Mechanical specifications	
Protection degree	IP68
Mechanical construction	
Versions	sleeve design: LFL1-CK-W*-PVC3, LFL1-CK-W*-PUR3, LFL1-CK-W*-CSM3 ball design: LFL1-BK-W*-PVC3, LFL1-BK-W*-PUR3, LFL1-BK-W*-CSM3
Material	float: PP (Polypropylene) cable: - PVC version: PVC cable, highly flexible (2 x 0.75 mm ²) - PUR version: PUR cable, highly flexible (2 x 0.50 mm ²) - CSM/CM version: CSM/CM cable (chlorinated polyethylene, (2 x 0.75 mm ²))
Switching point	switch angle: upper switching point +12°, lower switching point -12°, measured against the horizontal
General information	
Directive conformity	
Directive 73/23/EEC (Low Voltage Directive)	EN 50178
Directive 89/336/EC (EMC)	EN 60947-5-2, EN 60947-5-2 A1
Conformity	
Protection degree	EN 60529
Supplementary information	Statement of Conformity, Declaration of Conformity and instructions have to be observed. For information see www.pepperl-fuchs.com .

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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, cable gland G1A, PVC
- LFL-Z132, cable gland G1A, brass
- LFL-Z161, cable gland G2A, PVC
- LFL-Z431, cable gland 1 NPT, PVC
- LFL-Z432, cable gland 1 NPT, brass
- LFL-Z461, cable gland 2 NPT, PVC

Type code/model number

