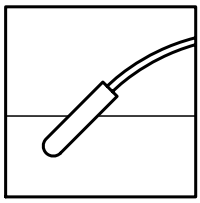
Dimensions

Float switch

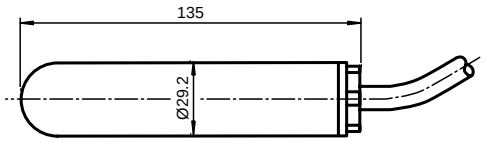
LFL1-Z0/Z1



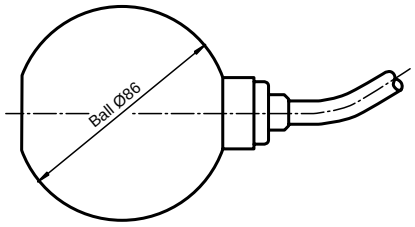
CE

Features

- Switching element: float switch with initiator
- Electrical connections 2-wire 6 V DC ... 60 V DC
- Determination of limiting values for fluids
- Sleeve design: small diameter, mounting through G1 tap hole possible
- Ball design: high buoyancy



Sleeve design LFL1-CK-Z0/Z1



Ball design LFL1-BK-Z0/Z1

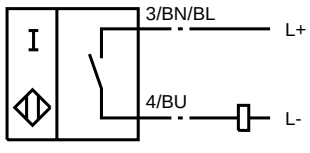
Function

The initiator is integrated in a PP float and is activated in the event of deviations from the horizontal position. The operation 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 (6 V DC ... 60 V DC).

Electrical connection

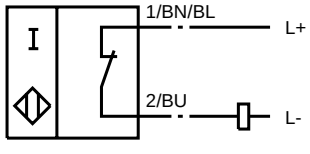
Cable colours
brown or black = L+
blue = L-

Z0



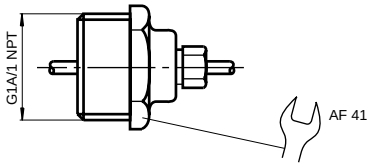
Z0 floating up closing

Z1

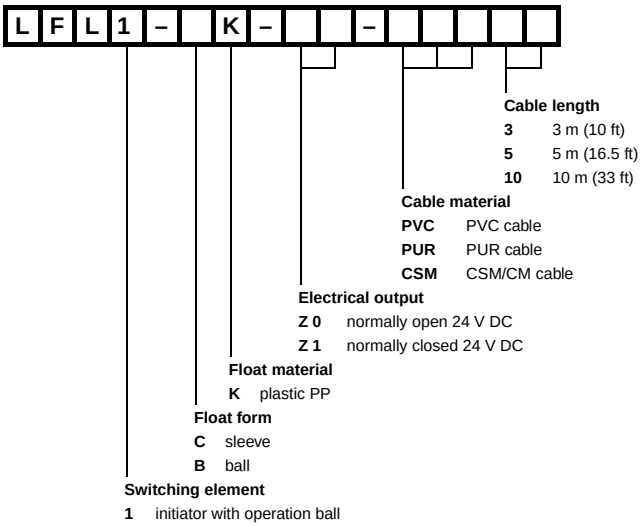


Z1 floating up opening

	LFL1-Z0/Z1
Application	
Description	inductive sensor with operation ball Z0 = floating up closing (normally open) Z1 = floating up opening (normally closed)
Function and system design	
Equipment architecture	a measuring system consists of a float switch LFL1-Z0/Z1 and a load switched in series
Auxiliary energy	
Supply voltage	6 ... 60 V DC
Current consumption	4 ... 100 mA
Voltage drop	approx. 4.7 V at 100 mA
No load current	0.73 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 inches), preferred for water, waste water, slightly aggressive liquids • PUR version: ≥ 100 mm (4 inches), preferred for fuels, heating oils, oily fluids • CSM/CM version: ≥ 100 mm (4 inches), 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 assembly) from the top • the pivot of the cable should always be horizontal.
Ambient conditions	
Protection class	DIN EN 60529, IP68
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	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 construction	
Versions	• LFL1-CK-Z*-PVC3 • LFL1-CK-Z*-PVC5 • LFL1-CK-Z*-CSM10 • LFL1-BK-Z*-PVC5 • LFL1-BK-Z*-CSM5
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)
Switch point	switch angle: upper switching point +12°, lower switching point -12°, measured against the horizontal
General information	
Directive conformity	
Directive 89/336/EC (EMC)	EN 60947-5-2: 1998, EN 60947-5-2 A1: 1999
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity and instructions have to be observed. This information can be found under www.pepperl-fuchs.com.

	LFL1-Z0/Z1
Accessories	
Designation	• LFL-Z231, counter nut, G1A, PVC • LFL-Z32, counter weight, grey cast iron with plastic coating (Polycarbonat) • LFL-Z33, counter weight, grey cast iron with ECTFE coating (Halar)
	
	• LFL-Z131, cable gland G1A, PVC • LFL-Z132, cable gland G1A, brass • LFL-Z431, cable gland 1 NPT, PVC • LFL-Z432, cable gland 1 NPT, brass
	 Cable gland

Type code/model number



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