CE

Float Switch LFL1

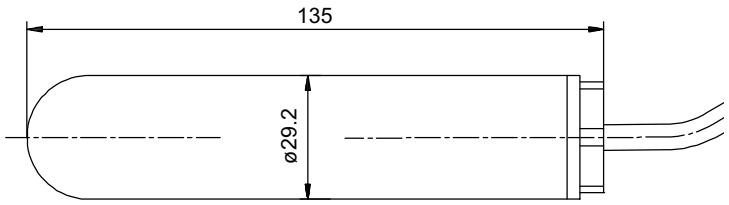
- **switching element: initiator with NAMUR - output**
- **limit value detection for liquids**
- **cylinder type: small diameter, mounting through G1" tap hole possible**
- **ball type: high buoyancy**

Cylinder type
LFL1-CK-N-PVC3
LFL1-CK-N-PVC5
LFL1-CK-N-PUR3
LFL1-CK-N-PUR5
LFL1-CK-N-CSM3
LFL1-CK-N-CSM5

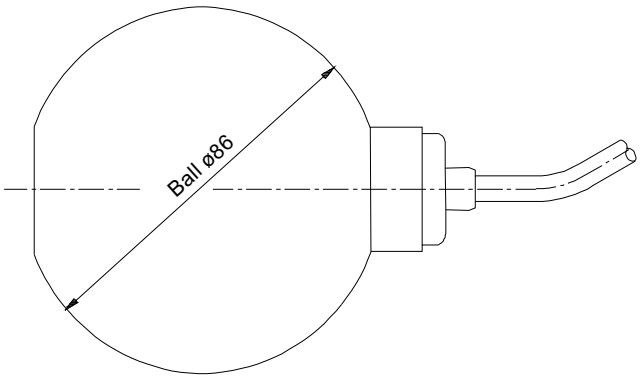
Ball type
LFL1-BK-N-PVC3
LFL1-BK-N-PVC5
LFL1-BK-N-PUR3
LFL1-BK-N-PUR5
LFL1-BK-N-CSM3
LFL1-BK-N-CSM5

Function principle
The initiator (make switch) is build into a PP-float and switches when out of the horizontal line. The switching ball is running on-axis and changes the state of the switch by means of an inductance change of the initiator. The initiator provides a switching signal according to DIN 19 234 (NAMUR) as switching output.

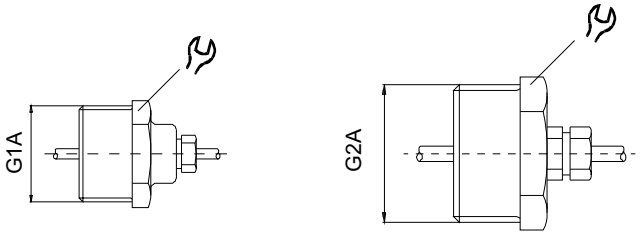
Mounting
The float is mounted either from sidewards through a cable gland ≥ G1A into the vessel or by means of an additional mass, or rods (e.g. float switch combination) from the top.
The pivot of the cable should always be horizontal. The minimum length of the cable between mounting and float is depending of the cable material (see technical data).



Cylinder type LFL1-CK



Ball type LFL1-BK



Accessories: cable gland

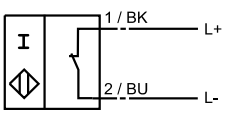
Types

LFL 1 - □ K - N - □□□ □

- cable length / cable material
- float type

Connection

cable colors
black = L +
blue = L -



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Subject to reasonable modifcations due to technical advances.
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CE

Float Switch LFL1

Technical data	
Switching element	Proximity switch with switching ball
Switching function	closes floating up (make switch)
Nominal voltage	8V, according to DIN 19 234 (NAMUR) e.g. via transformer isolated barrier *SR2*
Switching angle	upper switching point +12 °, lower switching point -12 °, against the horizontal
Process conditions	
Temperature	
LFL1-□K-N-PVC□	-20 °C ... +70 °C (253 K ... 343 K)
LFL1-□K-N-PUR□	-20 °C ... +85 °C (253 K ... 358 K)
LFL1-□K-N-CSM□	-20 °C ... +85 °C (253 K ... 358 K)
Pressure (20 °C)	
Cylinder type	≤ 3 bar
Ball type	≤ 2 bar
Density ρ	
Cylinder type	≥ 0.8 g/cm³
Ball type	≥ 0.6 g/cm³
Material of the float	PP (Polypropylene)
Cable	
Material and lenght	
LFL1-□K-N-PVC3	PVC-cable, highly flexible (2 x 0.75 mm²), 3 m
LFL1-□K-N-PVC5	PVC-cable, highly flexible (2 x 0.75 mm²), 5 m
LFL1-□K-N-PUR3	PUR-cable, highly flexible (2 x 0.50 mm²), 3 m
LFL1-□K-N-PUR5	PUR-cable, highly flexible (2 x 0.50 mm²), 5 m
LFL1-□K-N-CSM3	CSM-cable (Hypalon), highly flexible (2 x 0.75mm²), 3 m
LFL1-□K-N-CSM5	CSM-cable (Hypalon), highly flexible (2 x 0.75mm²), 5 m
Application range	
PVC	preferably for water, waste water, and aggressive liquids
PUR	preferably for fuel, and greasy liquids
CSM	preferably for most acids and lies
Minimum length of the cable between mounting and float	
PVC	≥ 50 mm
PUR	≥ 100 mm
CSM	≥ 100 mm
Mounting	
from outside, sidewards	with cable gland (cylinder type)
from top	with additional mass or float switch combination

Accessories	**Ordering number**
LFL-Z131	Cable gland G1A, PVC
LFL-Z132	Cable gland G1A, brass
LFL-Z161	Cable gland G2A, PVC
LFL-Z231	Lock nut, G1A, PVC
LFL-Z31	Counter weight 2"
LFL-Z431	Cable gland 1"NPT, PVC
LFL-Z432	Cable gland 1"NPT, brass
LFL-Z461	Cable gland 2"NPT, PVC

A measuring system consists out of:
- a float switch LFL1-□K-N and a transformer isolated barrier, e.g. KFD2-SR2-Ex1.W

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