



Level sensors Vibrating level switch, LFB310

LFB310-XXGBVTPRX



Model Name > [LFV310-XXGBVTPRX](#)
Part No. > [6038002](#)



*Product may differ
from illustration*

At a glance

- Several housing materials and electrical outputs available
- Commissioning without filling
- Process temperature up to 250 °C
- Immune to deposit formation
- Very high repeatability
- Aseptic versions according to EHEDG and FDA available, CIP and SIP resistant
- ATEX and marine certifications available

Your benefits

- Easy installation and commissioning, no calibration necessary
- Easy operation and integration, saves time
- Maintenance-free sensor, reduces downtime
- Testing in place possible - no mounting required, which reduces installation time
- Flexible and tough system for a multitude of applications
- Universal technology works in all kinds of liquids



Features

Medium:	Fluids
Measurement:	Switch
Probe length:	66 mm
Process pressure:	-1 bar ... 64 bar
Process temperature:	-50 °C ... 250 °C
Fill material density:	0.5 ... 2.5

Performance

Accuracy of sensor element:	± 2 mm
Repeatability:	1
Viscosity:	0.1 mPas ... 10,000 mPas
Response time:	500 ms

Mechanical data

Housing material:	Plastic
Process connection:	G ¾ A PN 64/316L
Wetted parts:	Stainless steel 316L (optional Ra ≤ 0.8 µm)
Sensor material:	Stainless steel 1.4404

Temperature drift:	0,03 mm/K
Enclosure rating:	IP 66
Power consumption:	5 mA ... 30 mA
Protection class:	0, 1
Initialization time:	2
Output signal:	Double relay (DPDT): 20 V DC ... 72 V DC/20 ... 253 V AC
Hysteresis:	2 mm
Output current:	> 10 UA, 3A AC, 1A DC
Capacitive load:	750 VA 54 W
Inductive load:	750 VA 54 W
Connection type:	M20 x 1.5

Ambient operating temperature:	-40 °C ... 70 °C
Ambient storage temperature:	-40 °C ... 80 °C

Technical drawings of various probe types with dimensions and a legend.

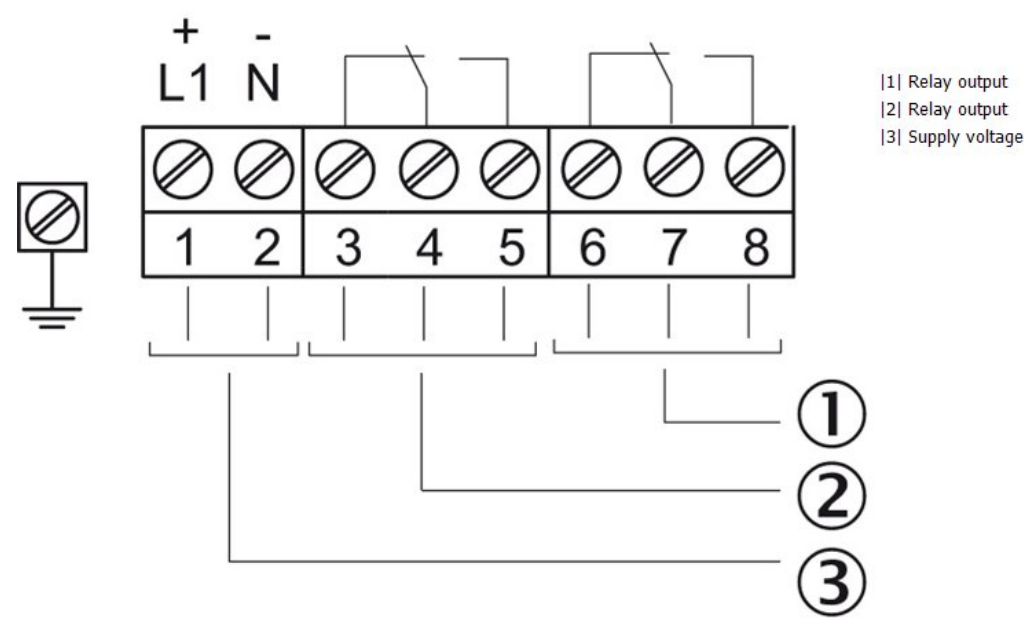
Dimensions:

- Top Left: $G\frac{3}{4}=66 \text{ mm (2.6)}$, $G1=69 \text{ mm (2.72)}$, 18.5 mm (0.73)
- Bottom Left: 53 mm (2.09) , 50 mm (1.97) , $\varnothing 33.7 \text{ mm (1.33)}$
- Top Middle: 36 mm (1.42) , 53 mm (2.09)
- Bottom Middle: 19 mm (0.75) , 53 mm (2.09)
- Top Right: 57 mm (2.24) , 55 mm (2.17)
- Bottom Right: 34 mm (1.34) , 178 mm (7.01)

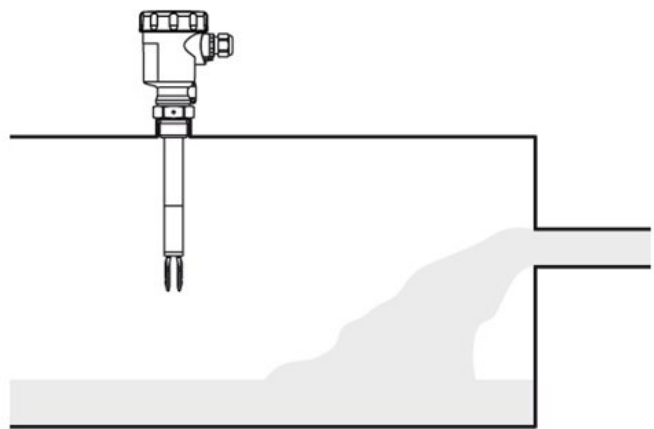
Legend:

- [1] Thread
- [2] Tri-Clamp
- [3] Cone DN 25
- [4] Bolting D 40
- [5] Flange
- [6] Gas-tight leadthrough
- [7] Temperature adapter

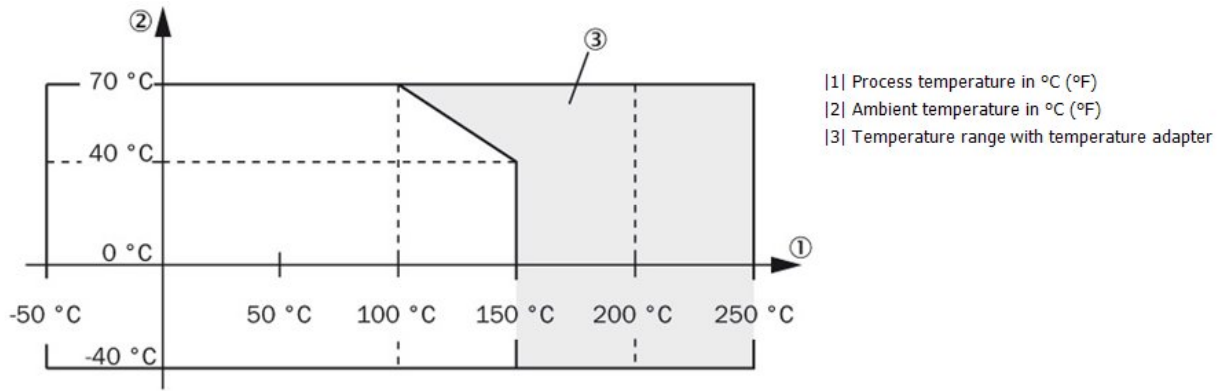
Double relay connection diagram



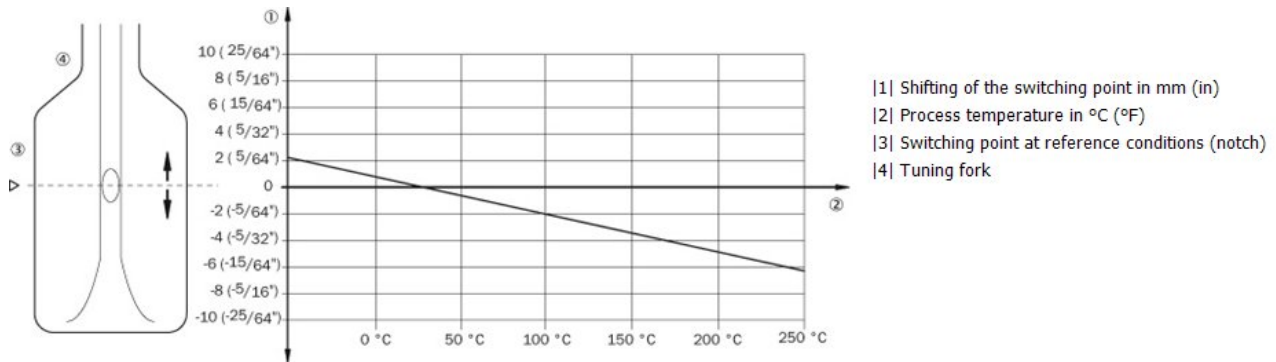
Instruction for installation



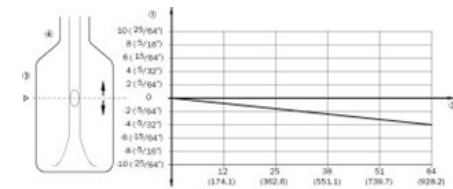
Ambient temperature - process temperature



Influence of the process temperature on the switching point

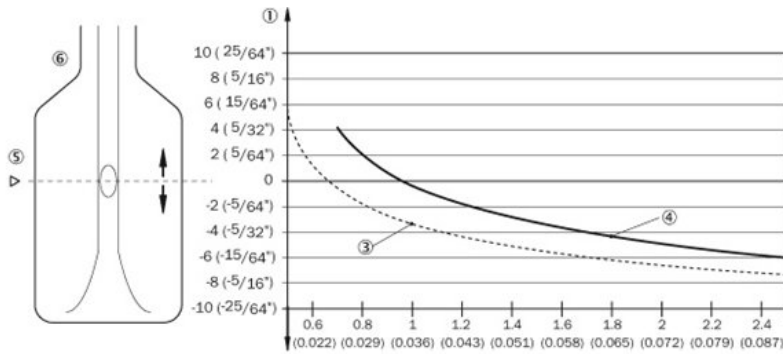


Influence of the process temperature to the switching point



- |1| Shifting of the switching point in mm (in)
- |2| Process pressure in bar (psig)
- |3| Switching point at reference conditions (notch)
- |4| Tuning fork

Influence of the product density on the switching point



- |1| Shifting of the switching point in mm (in)
- |2| Product density in g/cm3 (lb/in3)
- |3| Switch position 0.5 g/cm3 (0.018 lb/in3)
- |4| Switch position 0.7 g/cm3 (0.025 lb/in3)
- |5| Switching point at reference conditions (notch)
- |6| Tuning fork

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