



Level sensors  
Vibrating level switch, Lfv310

LFV310-XXGBVXMRX



**Model Name** > LFB310-XXGBVXMRX  
**Part No.** > 6037991



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 ... 150 °C
WHG approval:	-
ATEX certification:	-
Ship approval:	-
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:	Aluminum
Process connection:	G 3/4 A PN 64/316L

Wetted parts:  
Sensor material:

Stainless steel 316L (optional Ra ≤ 0.8 μm)  
Stainless steel 1.4404

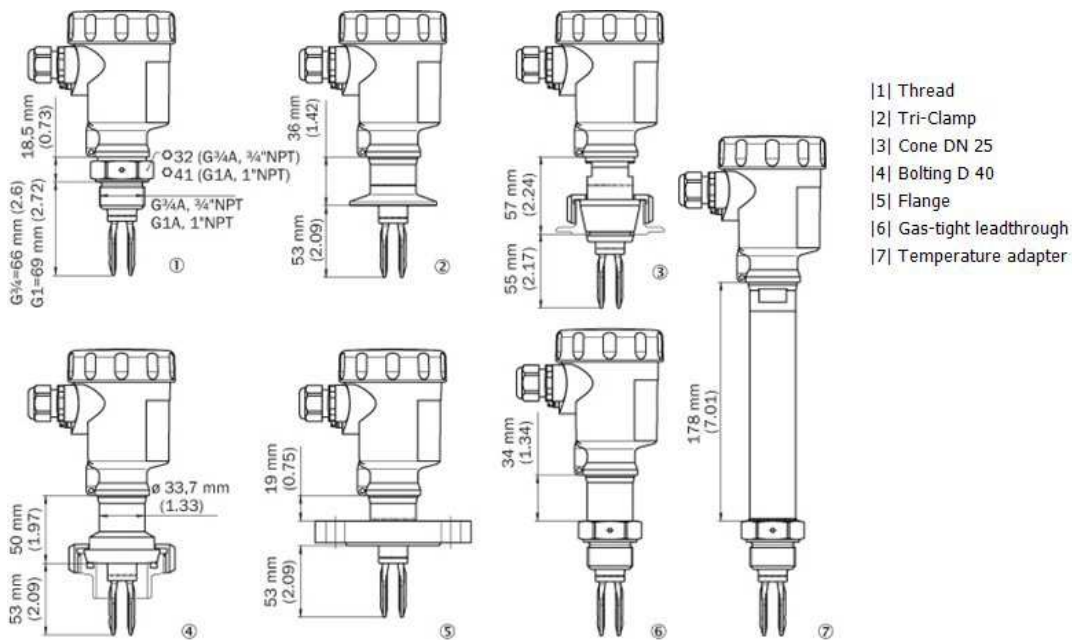
### Electrical data

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  
Electrical connection: M20 x 1.5

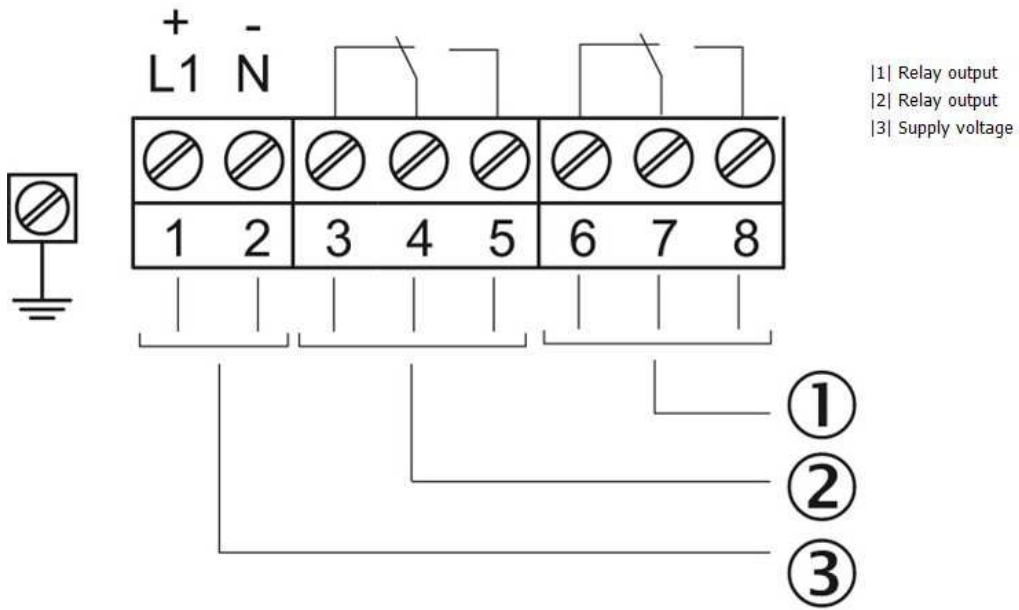
### Ambient data

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

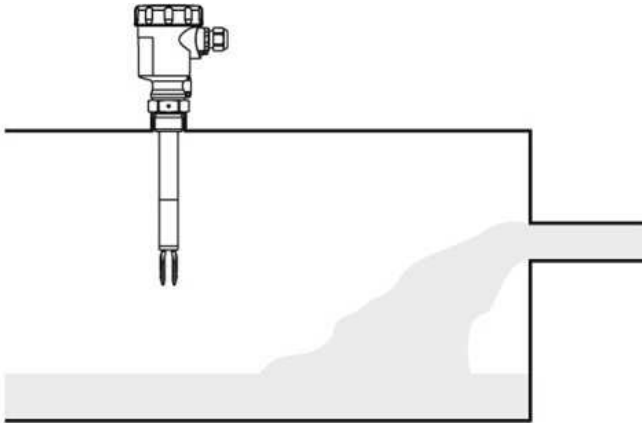
### Dimensional drawing



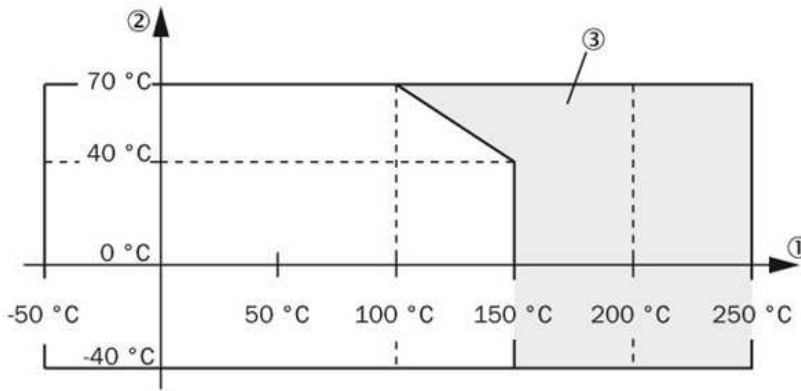
## Double relay connection diagram



## Instruction for installation

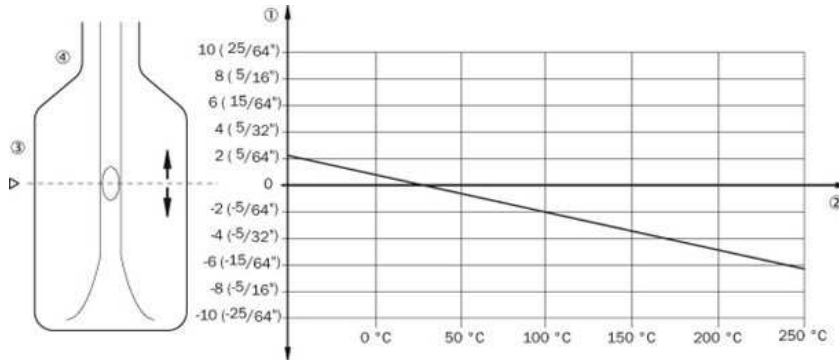


## Ambient temperature - process temperature



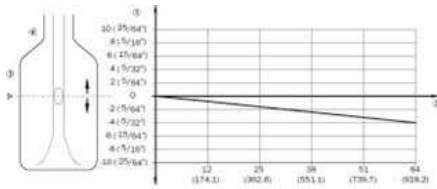
- |1| Process temperature in °C (°F)
- |2| Ambient temperature in °C (°F)
- |3| Temperature range with temperature adapter

## Influence of the process temperature on the switching point



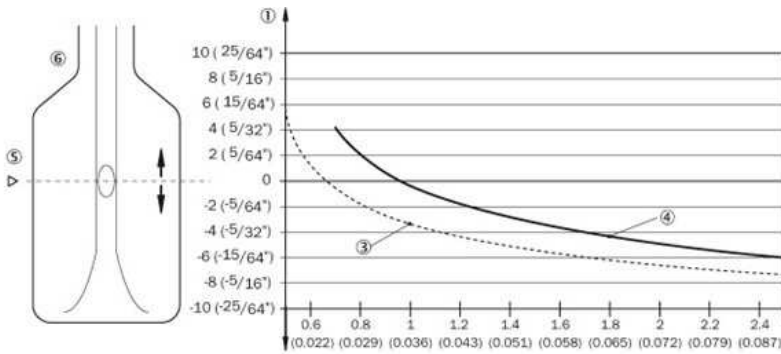
- |1| Shifting of the switching point in mm (in)
- |2| Process temperature in °C (°F)
- |3| Switching point at reference conditions (notch)
- |4| Tuning fork

## 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/cm<sup>3</sup> (lb/in<sup>3</sup>)
- |3| Switch position 0.5 g/cm<sup>3</sup> (0.018 lb/in<sup>3</sup>)
- |4| Switch position 0.7 g/cm<sup>3</sup> (0.025 lb/in<sup>3</sup>)
- |5| Switching point at reference conditions (notch)
- |6| Tuning fork

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