



Level sensors  
Vibrating level switch, LFB310

LFB310-XXGAVX8TL



**Model Name** > LFB310-XXGAVX8TL  
**Part No.** > 6041431



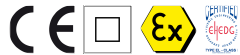
*Product may differ from illustration*

**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:	118 mm
Process pressure:	-1 bar ... 64 bar
Process temperature:	-50 °C ... 150 °C
WHG 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:	Stainless steel (electropolished) 316L
Process connection:	G 1 A PN 64
Wetted parts:	Stainless steel 316L (optional Ra ≤ 0.8 µm)
Sensor material:	Stainless steel 1.4404

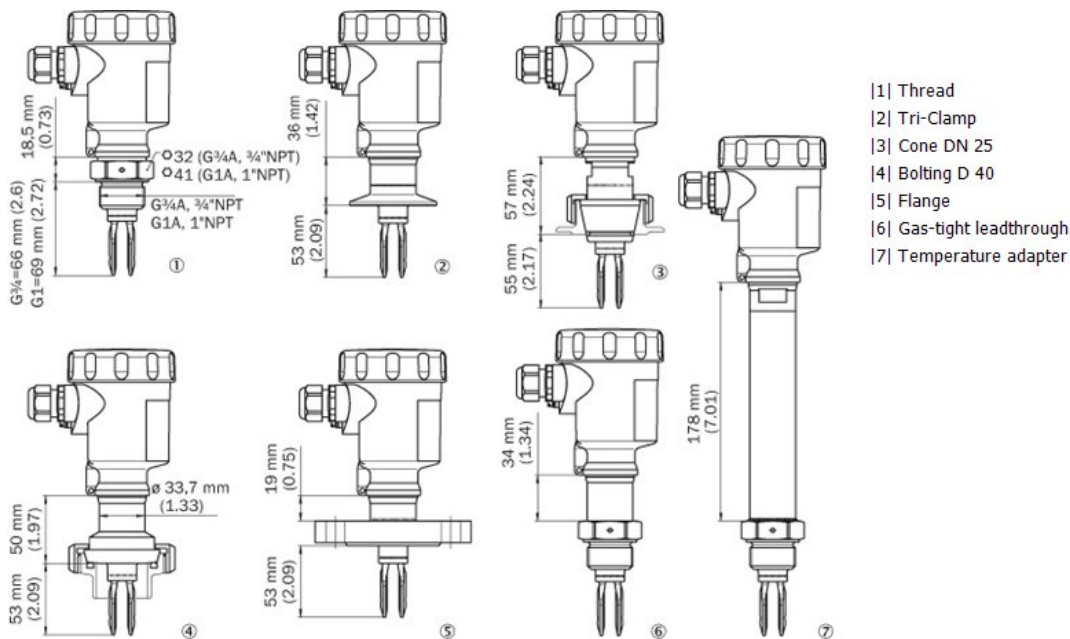
## Electrical data

Temperature drift:	0,03 mm/K
Enclosure rating:	IP 66
Ripple:	≤ 5 Vpp
Power consumption:	< 10 mA
Protection class:	0, 1
Initialization time:	2
Output signal:	Transistor output PNP/ NPN: 10 V DC ... 55 V DC
Hysteresis:	2 mm
Output current:	< 300 mA
Signal voltage HIGH:	Uv - 3 V
Signal voltage LOW:	< 1 V
Capacitive load:	100
Inductive load:	1 H
Connection type:	M20 x 1.5

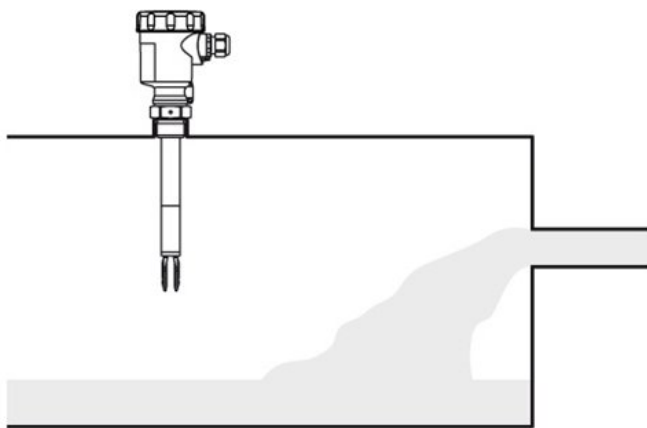
## Ambient data

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

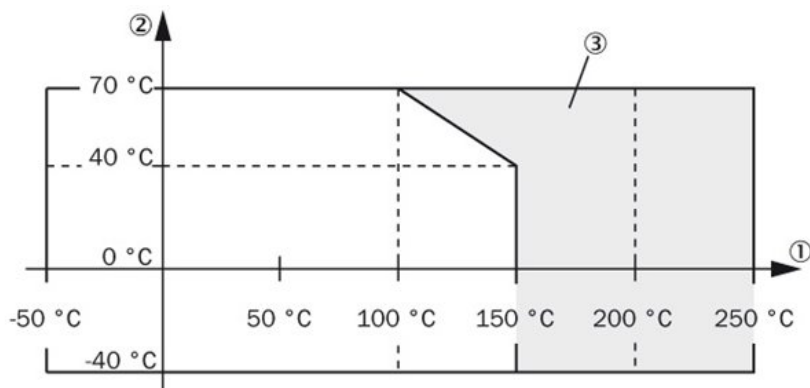
## Dimensional drawing



## Instruction for installation

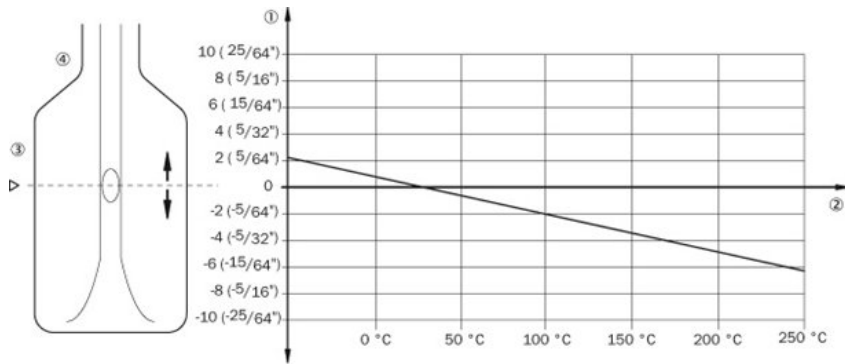


## Ambient temperature - process temperature



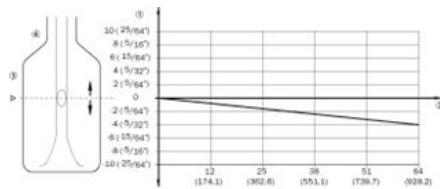
- [1] Process temperature in °C (°F)
- [2] Ambient temperature in °C (°F)
- [3] Temperature range with temperature adapter

## Influence of the process temperature on the switching point



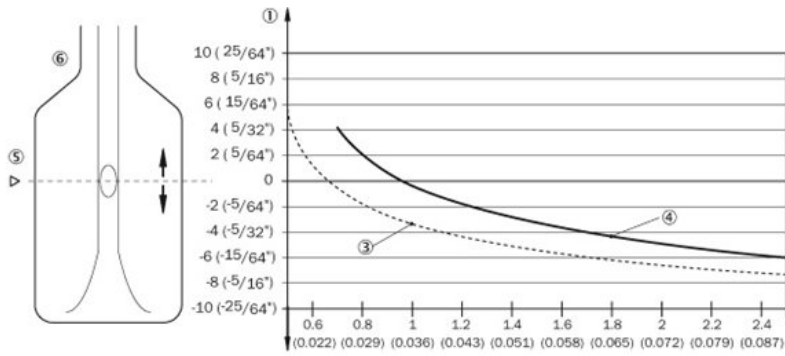
- |1| Shifting of the switching point in mm (in)
- |2| Process temperature in °C (°F)
- |3| Switching point at reference conditions (notch)
- |4| Tuning fork

## Influence of the process temperature to the switching point



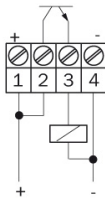
- |1| Shifting of the switching point in mm (in)
- |2| Process pressure in bar (psig)
- |3| Switching point at reference conditions (notch)
- |4| Tuning fork

## Influence of the product density on the switching point

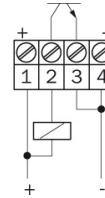


- [1] Shifting of the switching point in mm (in)
- [2] Product density in g/cm<sup>3</sup> (lb/in<sup>3</sup>)
- [3] Switch position 0.5 g/cm<sup>3</sup> (0.018 lb/in<sup>3</sup>)
- [4] Switch position 0.7 g/cm<sup>3</sup> (0.025 lb/in<sup>3</sup>)
- [5] Switching point at reference conditions (notch)
- [6] Tuning fork

## PNP action



## NPN action



**Australia**

Phone +61 3 9457 0600  
1800 334 802 – tollfree  
E-Mail sales@sick.com.au

**Belgium/Luxembourg**

Phone +32 (0)2 466 55 66  
E-Mail info@sick.be

**Brasil**

Phone +55 11 3215-4900  
E-Mail sac@sick.com.br

**Canada**

Phone +1 905 771 14 44  
E-Mail information@sick.com

**Ceská Republika**

Phone +420 2 57 91 18 50  
E-Mail sick@sick.cz

**China**

Phone +86 4000 121 000  
E-Mail info.china@sick.net.cn  
Phone +852-2153 6300  
E-Mail ghk@sick.com.hk

**Danmark**

Phone +45 45 82 64 00  
E-Mail sick@sick.dk

**Deutschland**

Phone +49 211 5301-301  
E-Mail kundenservice@sick.de

**España**

Phone +34 93 480 31 00  
E-Mail info@sick.es

**France**

Phone +33 1 64 62 35 00  
E-Mail info@sick.fr

**Great Britain**

Phone +44 (0)1727 831121  
E-Mail info@sick.co.uk

**India**

Phone +91-22-4033 8333  
E-Mail info@sick-india.com

**Israel**

Phone +972-4-6801000  
E-Mail info@sick-sensors.com

**Italia**

Phone +39 02 27 43 41  
E-Mail info@sick.it

**Japan**

Phone +81 (0)3 3358 1341  
E-Mail support@sick.jp

**Magyarország**

Phone +36 1 371 2680  
E-Mail office@sick.hu

**Nederlands**

Phone +31 (0)30 229 25 44  
E-Mail info@sick.nl

**Norge**

Phone +47 67 81 50 00  
E-Mail austefjord@sick.no

**Österreich**

Phone +43 (0)22 36 62 28 8-0  
E-Mail office@sick.at

**Polska**

Phone +48 22 837 40 50  
E-Mail info@sick.pl

**România**

Phone +40 356 171 120  
E-Mail office@sick.ro

**Russia**

Phone +7-495-775-05-30  
E-Mail info@sick.ru

**Schweiz**

Phone +41 41 619 29 39  
E-Mail contact@sick.ch

**Singapore**

Phone +65 6744 3732  
E-Mail admin@sicksgp.com.sg

**Slovenija**

Phone +386 (0)1-47 69 990  
E-Mail office@sick.si

**South Africa**

Phone +27 11 472 3733  
E-Mail info@sickautomation.co.za

**South Korea**

Phone +82 2 786 6321/4  
E-Mail info@sickkorea.net

**Suomi**

Phone +358-9-25 15 800  
E-Mail sick@sick.fi

**Sverige**

Phone +46 10 110 10 00  
E-Mail info@sick.se

**Taiwan**

Phone +886-2-2375-6288  
E-Mail sales@sick.com.tw

**Türkiye**

Phone +90 (216) 528 50 00  
E-Mail info@sick.com.tr

**United Arab Emirates**

Phone +971 (0) 4 8865 878  
E-Mail info@sick.ae

**USA/México**

Phone +1(952) 941-6780  
1 800-325-7425 – tollfree  
E-Mail info@sickusa.com

More representatives and agencies  
at [www.sick.com](http://www.sick.com)