



## Level sensors Vibrating level switch, LFV310

LFV310-DANBVXZTX



**Model Name** > [LFV310-DANBVXZTX](#)  
**Part No.** > [6043523](#)



*Illustration may differ*

#### 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 approval:         | ATEX II 1/2G, 2G Ex d IIC T6 |
| Fill material density: | 0.5 ... 2.5                  |
| Type examination:      | TÜV 09 ATEX 372527 X         |

#### Performance

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

#### Mechanical data

|                     |                |
|---------------------|----------------|
| Housing material:   | Aluminum       |
| Process connection: | 3/4" NPT PN 64 |

Wetted parts:  
Sensor material:

Stainless steel 316L (optional  $Ra \leq 0.8 \mu m$ )  
Stainless steel 1.4404

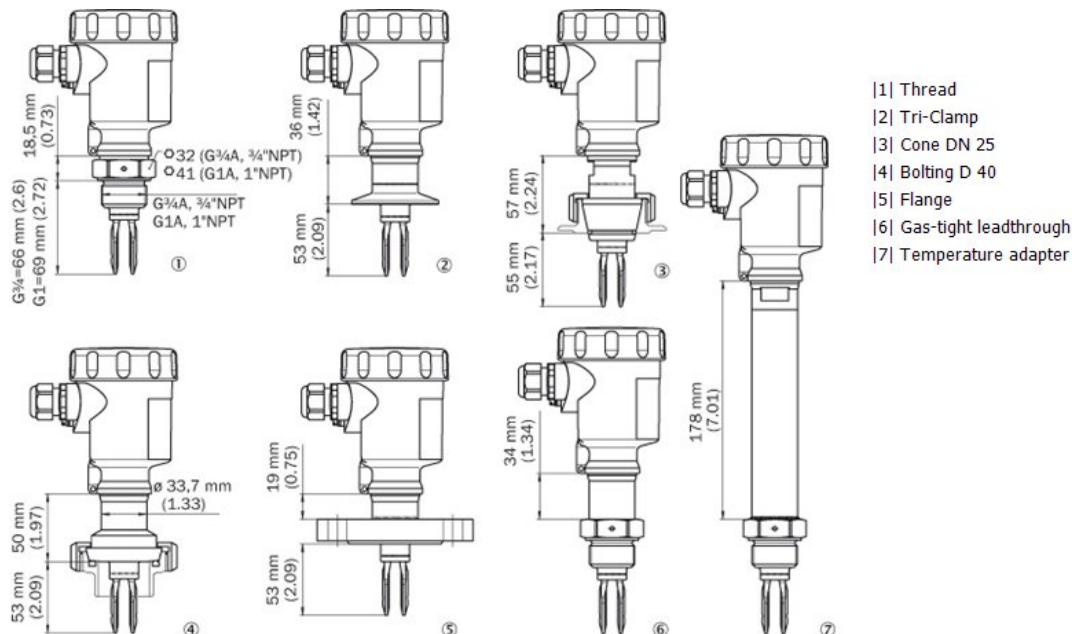
#### Electrical data

|                         |                                                 |
|-------------------------|-------------------------------------------------|
| Temperature drift:      | 0,03 mm/K                                       |
| Enclosure rating:       | IP 66                                           |
| Ripple:                 | $\leq 5 V_{pp}$                                 |
| Power consumption:      | $< 10 mA$                                       |
| VDE protection class 1: | -                                               |
| VDE protection class 2: | ✓                                               |
| Initialization time:    | 2 s                                             |
| Output signal:          | Transistor output PNP/ NPN: 10 V DC ... 55 V DC |
| Hysteresis:             | 2 mm                                            |
| Output current:         | $< 300 mA$                                      |
| Signal voltage HIGH:    | $U_v - 3 V$                                     |
| Signal voltage LOW:     | $< 1 V$                                         |
| Capacitive load:        | 100 $\Omega$                                    |
| Inductive load:         | $\leq 1 H$                                      |
| Connection type:        | M12x1 (4-pin)                                   |

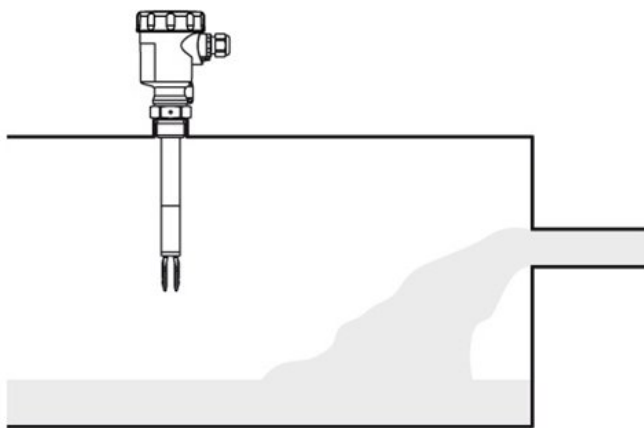
#### Ambient data

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

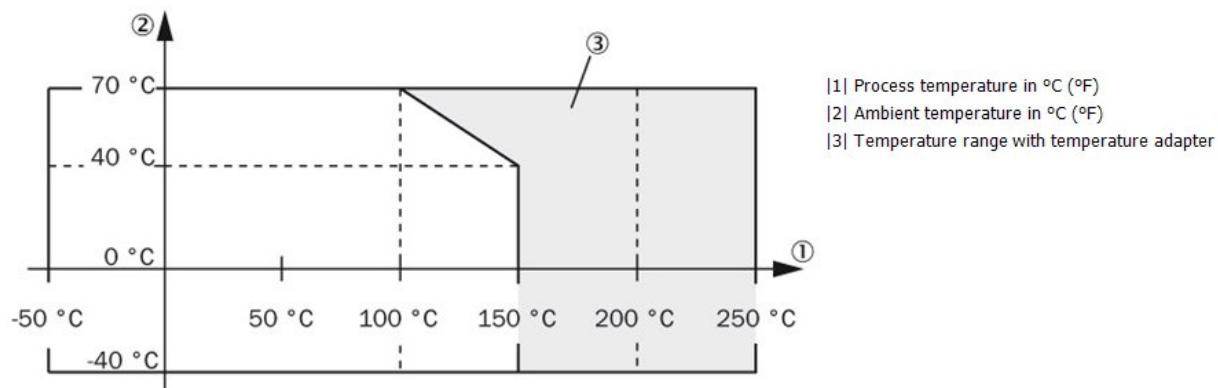
#### Dimensional drawing



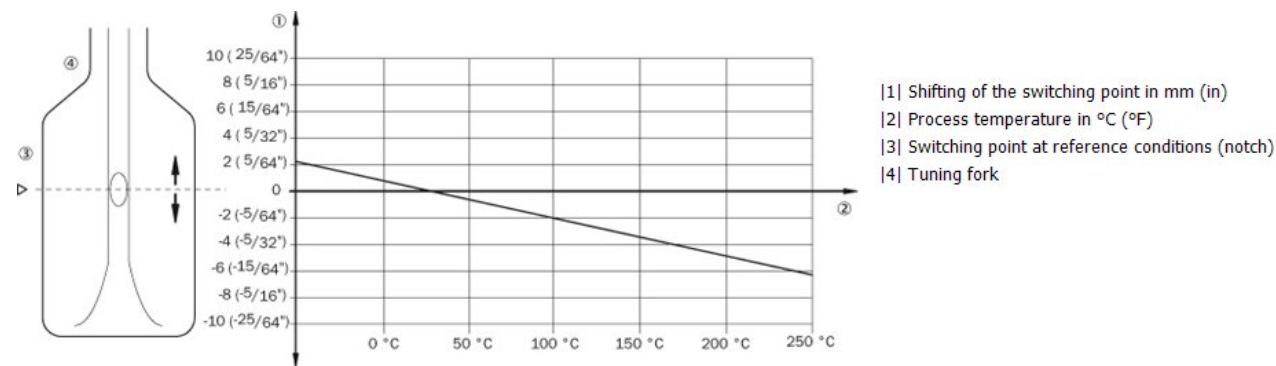
## Instruction for installation



## Ambient temperature - process temperature



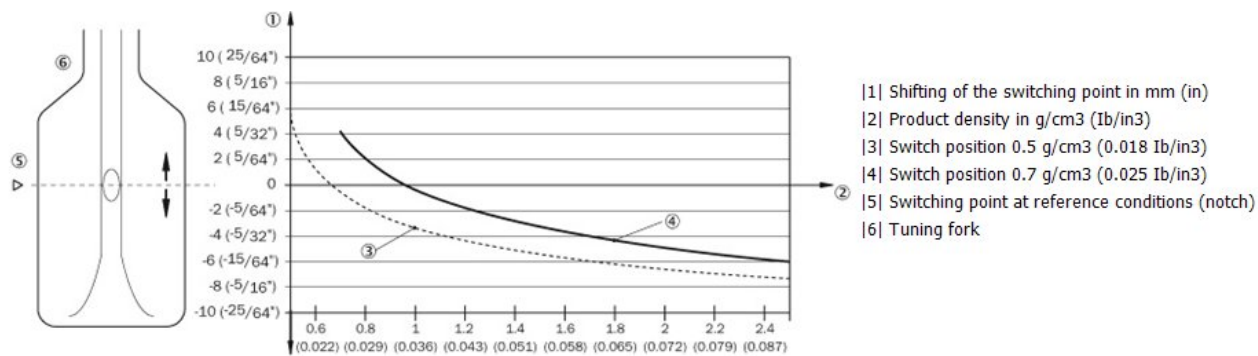
Influence of the process temperature on the switching point



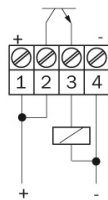
Influence of the process temperature to the switching point



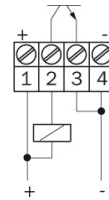
Influence of the product density on the switching point



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)