



## Level sensors Vibrating level switch, LBV310

LBV310-XXAGDTANX



**Model Name** > LBV310-XXAGDTANX  
**Part No.** > 6038020



*Product might differ  
from illustration*

#### At a glance

- Rugged device design
- Several housing materials and electrical outputs available
- Immune to deposit formation
- Commissioning without filling
- Process temperature up to 250 °C
- Very high repeatability
- ATEX versions (1D/2D/1G/2G) available
- Tube extensions (LBV330) and rope extensions (LBV320) available for vertical mounting up to 80 m distance

#### 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



#### Features

|                        |                         |
|------------------------|-------------------------|
| Medium:                | Bulk solids             |
| Measurement:           | Switch                  |
| Probe length:          | 220 mm                  |
| Process pressure:      | -1 bar ... 25 bar       |
| Process temperature:   | -50 °C ... 150 °C       |
| ATEX certification:    | -                       |
| Particle size:         | < 10 mm                 |
| Fill material density: | 0.008 g/cm <sup>3</sup> |

#### Performance

|                |         |
|----------------|---------|
| Accuracy:      | ± 10 mm |
| Repeatability: | ± 5 mm  |
| Response time: | 500 ms  |

#### Mechanical data

|                     |                        |
|---------------------|------------------------|
| Housing material:   | Aluminum               |
| Process connection: | G 1½ A PN 25/316L      |
| Sensor material:    | Stainless steel 1.4404 |

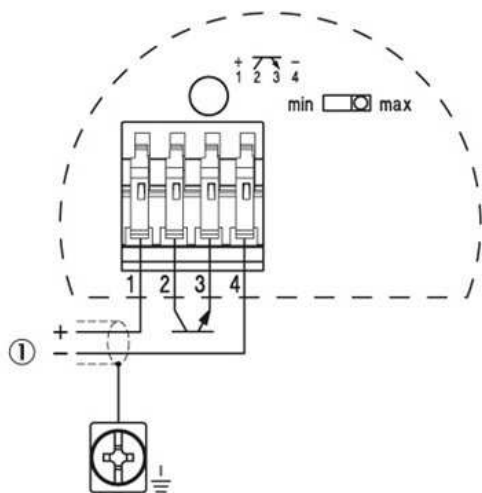
## Electrical data

|                         |                                                 |
|-------------------------|-------------------------------------------------|
| Enclosure rating:       | IP 66                                           |
| Residual ripple:        | $\leq 5 \text{ Vpp}$                            |
| Power consumption:      | $< 10 \text{ mA}$                               |
| VDE protection class 2: | ✓                                               |
| Initialization time:    | 2 s                                             |
| Output type:            | Transistor output PNP/ NPN: 10 V DC ... 55 V DC |
| Hysteresis:             | 10 mm                                           |
| Output current:         | $< 300 \text{ mA}$                              |
| Signal voltage HIGH:    | $U_v - 3 \text{ V}$                             |
| Signal voltage LOW:     | $< 1 \text{ V}$                                 |
| Capacitive load:        | 100 nF                                          |
| Inductive load:         | 1 H                                             |
| Electrical connection:  | $\frac{1}{2}$ " NPT                             |

## Ambient data

|                                |                                                                  |
|--------------------------------|------------------------------------------------------------------|
| Ambient temperature operation: | $-40 \text{ }^{\circ}\text{C} \dots 80 \text{ }^{\circ}\text{C}$ |
| Ambient storage temperature:   | $-40 \text{ }^{\circ}\text{C} \dots 80 \text{ }^{\circ}\text{C}$ |

## Transistor connection diagram



## Flow orientation of the tuning fork



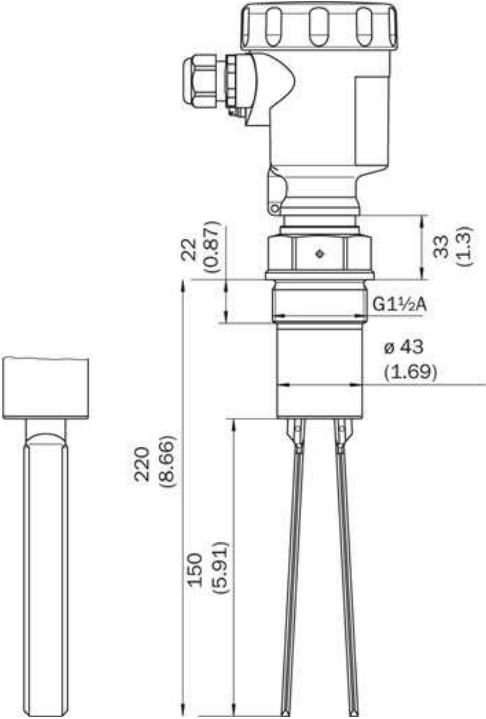
- |1| Marking with screwed version
- |2| Direction of flow

## Horizontal mounting

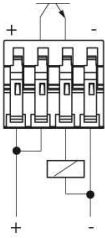


- |1| Protective sheet
- |2| Concave protective sheet for abrasive solids

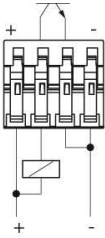
Dimensional drawing



PNP action



NPN action



**Australia**

Phone +61 3 9457 0600  
1800 33 48 02 – 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 marketing@sick.com.br

**Canada**

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

**Česká 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 info@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 +972-4-6881000  
E-Mail info@sick-sensors.com

**Italia**

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

**Japan**

Phone +81 (0)3 5309 2112  
E-Mail support@sick.jp

**Magyarország**

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

**Nederland**

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

**Norge**

Phone +47 67 81 50 00  
E-Mail sick@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 sales.gsg@sick.com

**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 88 65 878  
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)