



## Level sensors Vibrating level switch, LBV320

LBV320-XXHGD-RANX01700



**Model Name** > LBV320-XXHGDANX01700  
**Part No.** > 6038461



*Product may differ  
from illustration*

#### At a glance

- Rugged device design with suspension cable up to 80 m
- Several housing materials and electrical outputs available
- Immune to deposit formation
- Commissioning without filling
- Process temperature up to 150 °C
- Very high repeatability
- ATEX versions (1D/2D/1G/2G) available
- Short versions (LBV310) and tube-extended devices (LBV330) 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
- Solutions for vertically mounted switches in difficult installation conditions



#### Features

|                        |                         |
|------------------------|-------------------------|
| Medium:                | Bulk solids             |
| Measurement:           | Switch                  |
| Probe length:          | 1,700 mm                |
| Process pressure:      | -1 bar ... 6 bar        |
| Process temperature:   | -40 °C ... 150 °C       |
| ATEX certification:    | -                       |
| Particle size:         | < 10 mm                 |
| Fill material density: | 0.008 g/cm <sup>3</sup> |
| Tensile strength:      | ≤ 3,000 N               |

#### 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 316L, 318LN, PUR

### Electrical data

|                         |                                                          |
|-------------------------|----------------------------------------------------------|
| Enclosure rating:       | IP 66                                                    |
| Power consumption:      | 5 mA ... 30 mA                                           |
| VDE protection class 1: | ✓                                                        |
| Initialization time:    | 2 s                                                      |
| Output type:            | Double relay (DPDT): 20 V DC ... 72 V DC/20 ... 253 V AC |
| Hysteresis:             | 10 mm                                                    |
| Output current:         | > 10 UA, 3A AC, 1A DC                                    |
| Capacitive load:        | 750 VA 54 W                                              |
| Inductive load:         | 750 VA 54 W                                              |
| Connection type:        | ½" NPT                                                   |

### Ambient data

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

### Double relay connection diagram



- [1] Relay output
- [2] Relay output
- [3] Power supply

## Flow orientation of the tuning fork

---



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

## Mounting instruction: filling / emptying

---



## Mounting instruction: filling / emptying (side view)



- |1| LBV320
- |2| Discharge opening
- |3| Filling opening

## Horizontal mounting



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



#### **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)