



## Level sensors Vibrating level switch, LBV320

LBV320-XXTZFRANX00700



**Model Name** > [LBV320-XXTZFRANX00700](#)  
**Part No.** > [6042644](#)



*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:          | 700 mm           |
| Process pressure:      | -1 bar ... 6 bar |
| Process temperature:   | -20 °C ... 80 °C |
| ATEX certification:    | -                |
| Particle size:         | < 10 mm          |
| Fill material density: | 0.008            |
| Tensile strength:      | ≤ 3,000 N        |

#### Performance

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

#### Mechanical data

|                     |                                          |
|---------------------|------------------------------------------|
| Housing material:   | Aluminum                                 |
| Process connection: | Flange DN 100 PN 6 Form C, DIN2501/ 316L |

Sensor material:

Stainless steel 316L, 318LN, PUR

### Electrical data

|                      |                                                          |
|----------------------|----------------------------------------------------------|
| Enclosure rating:    | IP 66                                                    |
| Power consumption:   | 5 mA ... 30 mA                                           |
| Protection class:    | 1                                                        |
| Initialization time: | 2 s                                                      |
| Output signal:       | 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

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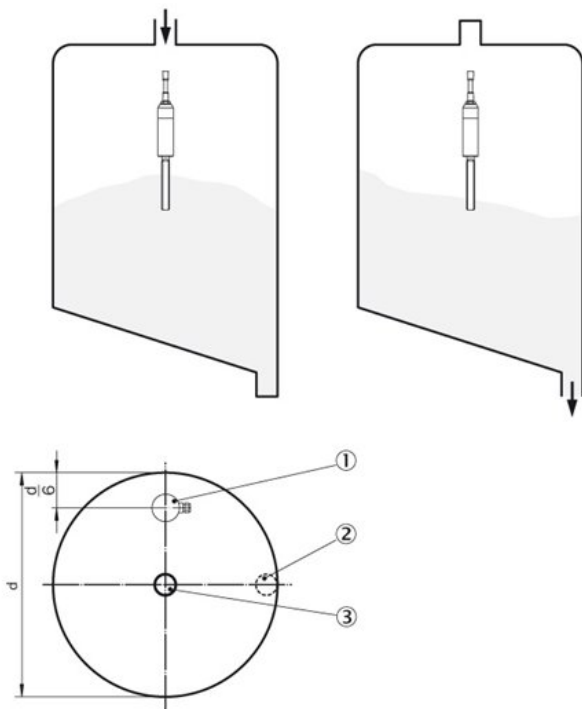
- |1| Marking with screwed version
- |2| Direction of flow

## Mounting instruction: filling / emptying

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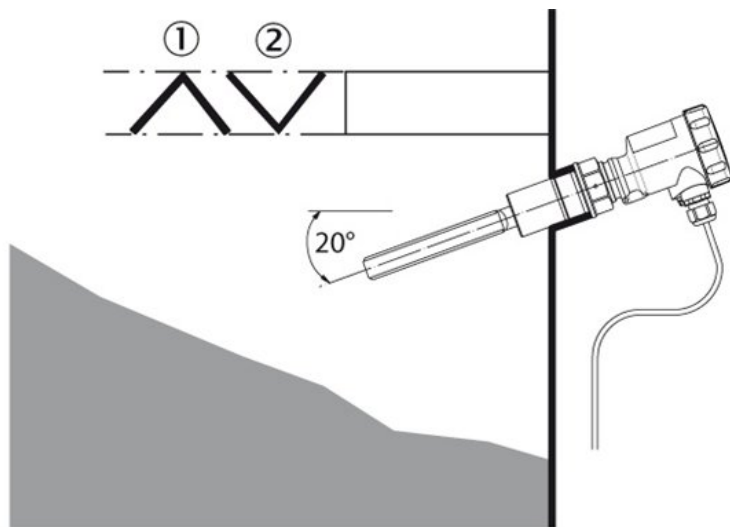


**Mounting instruction: filling / emptying (side view)**



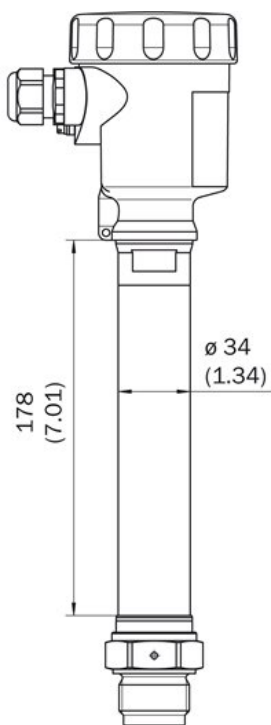
- |1| LBV320
- |2| Discharge opening
- |3| Filling opening

## Horizontal mounting

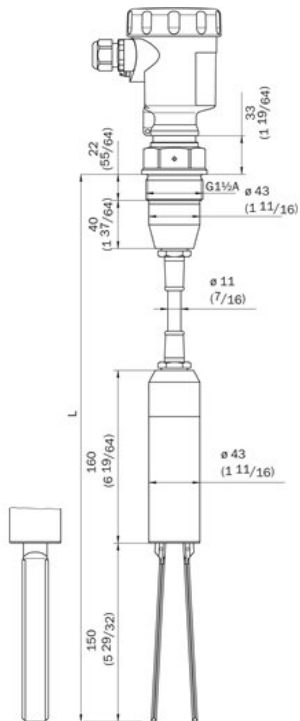


- |1| Protective sheet
- |2| Concave protective sheet for abrasive solids

Temperature adapter



Dimensional drawing



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