



## Level sensors Vibrating level switch, LBV320

LBV320-XXHNDRAMX01600



**Model Name** > [LBV320-XXHNDRAMX01600](#)  
**Part No.** > [6038541](#)



*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:          | 1,600 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: | 1 1/2" NPT PN 25/316L |

Sensor material:

Stainless steel 316L, 318LN, PUR

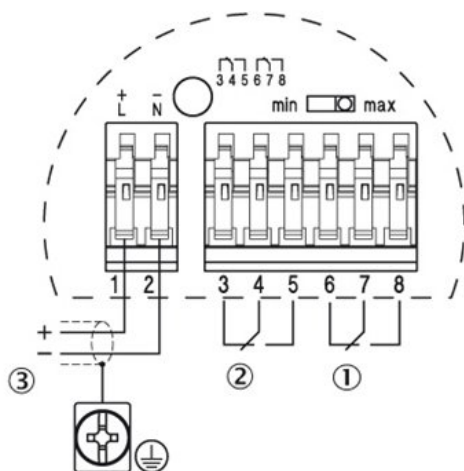
### Electrical data

|                         |                                                          |
|-------------------------|----------------------------------------------------------|
| 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:        | M20x1,5                                                  |

### 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



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