



## Level sensors Vibrating level switch, LBV310

LBV310-XXANDTKCX



**Model Name** > **LBV310-XXANDTKCX**  
**Part No.** > **6039715**



*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:   | Plastic                |
| Process connection: | 1 1/2" NPT PN 25/316L  |
| Sensor material:    | Stainless steel 1.4404 |

## Electrical data

|                         |                                                 |
|-------------------------|-------------------------------------------------|
| Enclosure rating:       | IP 66                                           |
| 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                                             |
| Connection type:        | M20x1,5                                         |

## Ambient data

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

## Transistor connection diagram



## Flow orientation of the tuning fork



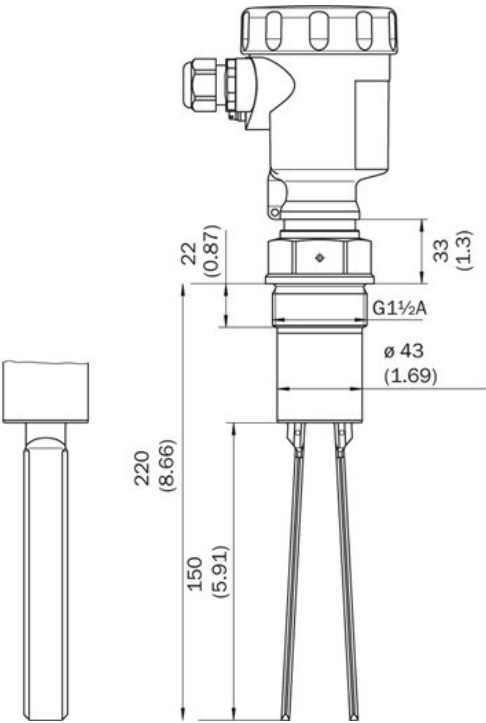
- |1| Marking with screwed version
- |2| Direction of flow

## Horizontal mounting

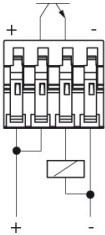


- |1| Protective sheet
- |2| Concave protective sheet for abrasive solids

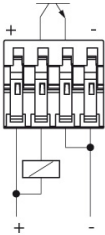
Dimensional drawing



PNP action



NPN action



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