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Thorne & Derrick  
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**LBV310-XXAGDTKMX**

LBV300

LEVEL SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

| Type             | Part no. |
|------------------|----------|
| LBV310-XXAGDTKMX | 6038016  |

Other models and accessories → [www.sick.com/LBV300](http://www.sick.com/LBV300)

### Detailed technical data

#### Features

|                              |                    |
|------------------------------|--------------------|
| <b>Medium</b>                | Bulk solids        |
| <b>Measurement</b>           | Switch             |
| <b>Probe length</b>          | 220 mm             |
| <b>Process pressure</b>      | -1 bar ... 25 bar  |
| <b>Process temperature</b>   | -50 °C ... +150 °C |
| <b>Fill material density</b> | ≥ 0.008            |
| <b>Particle size</b>         | < 10 mm            |

#### Performance

|                                   |                                               |
|-----------------------------------|-----------------------------------------------|
| <b>Accuracy of sensor element</b> | ± 10 mm                                       |
| <b>Repeatability</b>              | ≤ 5 mm                                        |
| <b>Response time</b>              | 500 ms when covered / 1,000 ms when uncovered |

#### Electronics

|                               |                                                           |
|-------------------------------|-----------------------------------------------------------|
| <b>Residual ripple</b>        | ≤ 5 V <sub>pp</sub>                                       |
| <b>Power consumption</b>      | < 10 mA                                                   |
| <b>Initialization time</b>    | < 2 s                                                     |
| <b>VDE protection class 2</b> | ✓                                                         |
| <b>Electrical connection</b>  | M20 x 1.5                                                 |
| <b>Supply voltage</b>         | Volt-free transistor output PNP/ NPN: 10 V DC ... 55 V DC |
| <b>Hysteresis</b>             | 10 mm                                                     |
| <b>Signal voltage HIGH</b>    | U <sub>v</sub> -3 V                                       |
| <b>Signal voltage LOW</b>     | < 1 V                                                     |
| <b>Output current</b>         | < 300 mA                                                  |
| <b>Inductive load</b>         | ≤ 1 H                                                     |
| <b>Capacitive load</b>        | 100 nF                                                    |
| <b>Enclosure rating</b>       | IP 66 / IP 67                                             |

#### Mechanics

|                           |              |
|---------------------------|--------------|
| <b>Process connection</b> | G 1½ A PN 25 |
|---------------------------|--------------|

|                         |                        |
|-------------------------|------------------------|
| <b>Housing material</b> | Plastic                |
| <b>Sensor material</b>  | Stainless steel 1.4404 |

## Ambient data

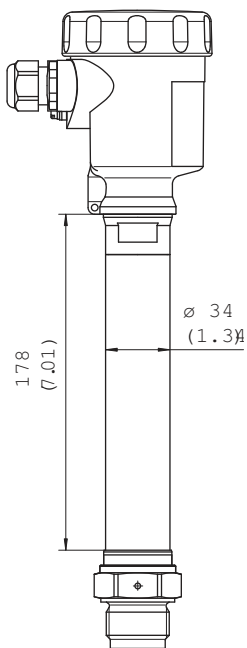
|                                      |                   |
|--------------------------------------|-------------------|
| <b>Ambient operating temperature</b> | -40 °C ... +80 °C |
| <b>Ambient storage temperature</b>   | -40 °C ... +80 °C |

## Classifications

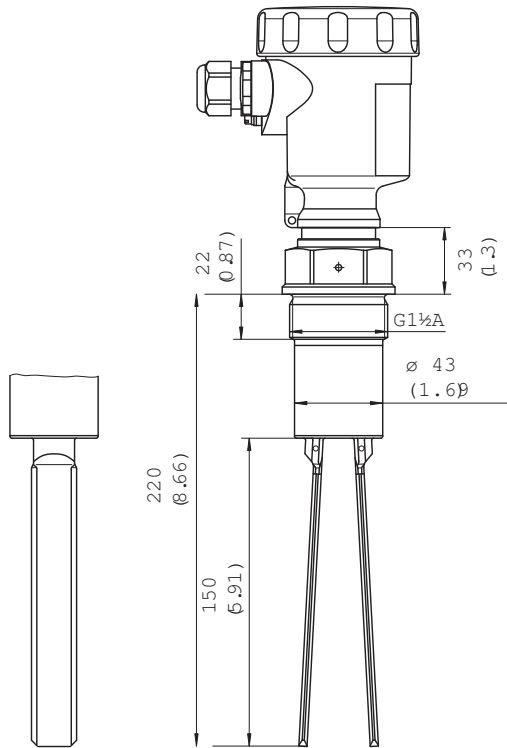
|                       |          |
|-----------------------|----------|
| <b>ECI@ss 5.0</b>     | 27273202 |
| <b>ECI@ss 5.1.4</b>   | 27273202 |
| <b>ECI@ss 6.0</b>     | 27273202 |
| <b>ECI@ss 6.2</b>     | 27273202 |
| <b>ECI@ss 7.0</b>     | 27273202 |
| <b>ECI@ss 8.0</b>     | 27273202 |
| <b>ECI@ss 8.1</b>     | 27273202 |
| <b>ECI@ss 9.0</b>     | 27273202 |
| <b>ETIM 5.0</b>       | EC002654 |
| <b>ETIM 6.0</b>       | EC002654 |
| <b>UNSPSC 16.0901</b> | 41111938 |

## Dimensional drawing (Dimensions in mm (inch))

Temperature adapter

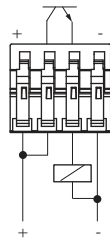


LBV310 threaded version G 1½ A (DIN ISO 228/1)

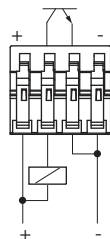


### Connection diagram

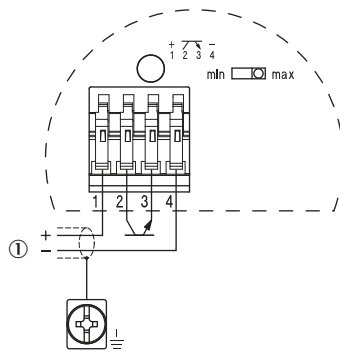
PNP action



NPN action

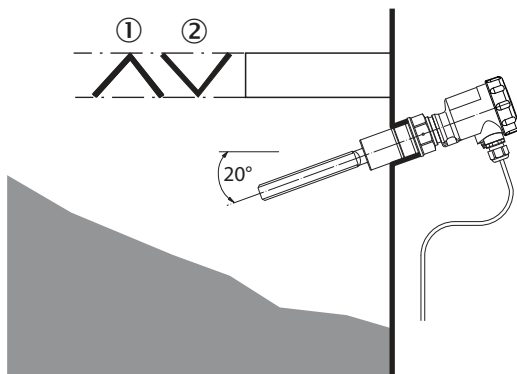


## Transistor connection diagram



## Instruction for installation

## Horizontal mounting



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

## Recommended accessories

Other models and accessories → [www.sick.com/LBV300](http://www.sick.com/LBV300)

|                                                                                     | Brief description                                                                                                                   | Type                | Part no. |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------|
| Mounting brackets and mounting plates                                               |                                                                                                                                     |                     |          |
|                                                                                     | Locking screw connection, process pressure –1 bar to 16 bar, process connection G 2 A, inner thread G 1 1/2 A, stainless steel 316L | BEF-MU-316G20-ALBV  | 5322462  |
| Electronic modules                                                                  |                                                                                                                                     |                     |          |
|  | Transistor (PNP/NPN): 10 V DC ... 55 V DC                                                                                           | ECD-RE-LB-VPNP-0001 | 6038667  |

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

Contacts and other locations [www.sick.com](http://www.sick.com)



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