



# LBV311-XXAGCRKMX

LBV301



LEVEL SENSORS

Thorne & Derrick  
+44 (0) 191 490 1547  
[www.heatingandprocess.com](http://www.heatingandprocess.com)

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

Type	Part no.
LBV311-XXAGCRKMX	6044864

Other models and accessories → [www.sick.com/LBV301](http://www.sick.com/LBV301)

### Detailed technical data

#### Features

<b>Medium</b>	Bulk solids
<b>Measurement</b>	Switch
<b>Probe length</b>	160 mm
<b>Process pressure</b>	-1 bar ... 16 bar
<b>Process temperature</b>	-50 °C ... +150 °C
<b>Fill material density</b>	≥ 0.02 g/cm <sup>3</sup>

#### 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>Power consumption</b>	5 mA ... 30 mA
<b>Initialization time</b>	< 2 s
<b>VDE protection class 1</b>	✓
<b>Electrical connection</b>	M20 x 1.5
<b>Supply voltage</b>	Double relay (DPDT): 20 V DC ... 72 V DC / 20 V AC ... 253 V AC
<b>Hysteresis</b>	10 mm
<b>Output current</b>	> 10 µA; < 3A AC, 1A DC
<b>Enclosure rating</b>	IP 66 / IP 67

#### Mechanics

<b>Process connection</b>	G 1 A
<b>Housing material</b>	Plastic
<b>Sensor material</b>	Stainless steel 316L, 318S

#### Ambient data

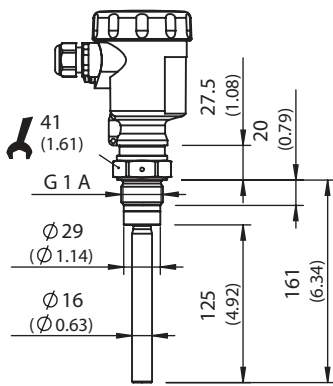
<b>Ambient operating temperature</b>	-40 °C ... +70 °C
<b>Ambient storage temperature</b>	-40 °C ... +80 °C

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

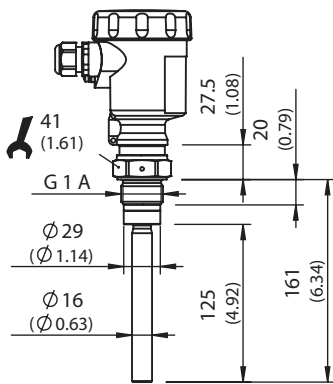
**Dimensional drawing** (Dimensions in mm (inch))

LBV311 threaded version G 1 ½ A



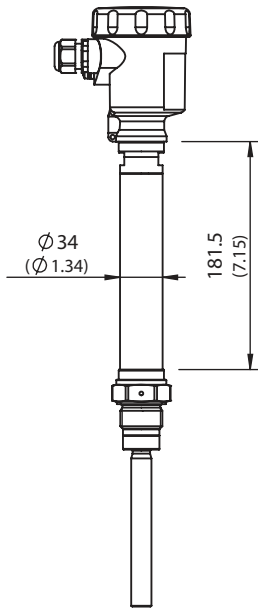
All dimensions in mm (inch)

LBV311 threaded version G 1 A



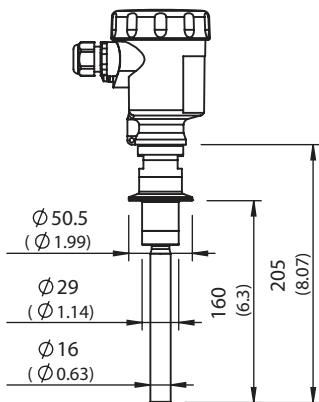
All dimensions in mm (inch)

LBV311 temperature adapter -50 °C ... +250 °C



All dimensions in mm (inch)

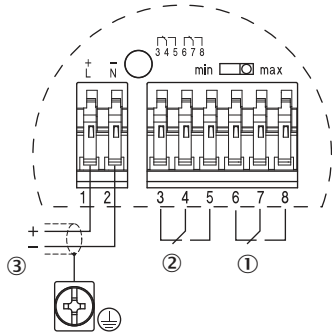
LBV311 threaded version Tri-Clamp



All dimensions in mm (inch)

**Connection diagram**

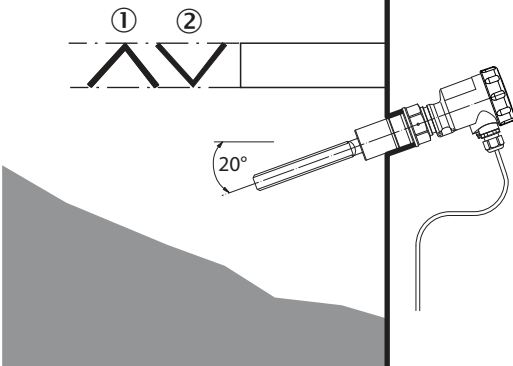
Double relay connection diagram



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

**Instruction for installation**

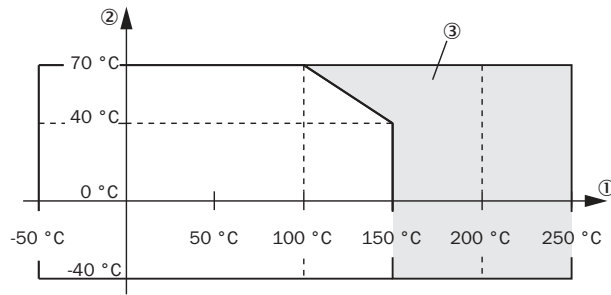
Horizontal mounting



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

### Characteristic curve

Ambient temperature - process temperature



- ① Process temperature in °C (°F)
- ② Ambient temperature in °C (°F)
- ③ Temperature range with temperature adapter

## SICK AT A GLANCE

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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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