



Illustration may differ



Ordering information

Type	part no.
LBV311-GXACVTAMX	6050962

Other models and accessories → www.sick.com/LBV3xx

Detailed technical data

Features

Medium	Bulk solids
Measurement	Switch
Probe type	Rod probe
Probe length	160 mm
Process pressure	-1 bar ... 16 bar
Process temperature	-50 °C ... +150 °C
Fill material density	≥ 0.02 g/cm ³
ATEX approval	ATEX II 1D, 1/2D, 2D Ex ta /tb /tb IIIC Tx Da, Da/Db, Db
Type examination	BVS 17 ATEX E 098 X

Performance

Accuracy of sensor element	± 10 mm
Reproducibility	≤ 5 mm
Response time	500 ms ¹⁾ 100 ms ²⁾
MTBF	4,17*10 ⁶ h

¹⁾ When covered.

²⁾ When uncovered.

Electronics

Communication interface	-
Supply voltage	10 V DC ... 55 V DC
Residual ripple	≤ 5 V _{pp}
Power consumption	≤ 10 mA
Initialization time	< 2 s
VDE protection class 2	✓
Connection type	M20 x 1.5

Output signal	1 x PNP/NPN
Electronics	Volt-free transistor output PNP/ NPN
Hysteresis	10 mm
Output current	< 300 mA
Inductive load	1 H
Capacitive load	100 nF
Enclosure rating	IP66 IP67

Mechanics

Wetted parts	Stainless steel 1.4404 / 316L
Surface roughness	Ra ≤ 0,8 µm
Process connection	Tri-Clamp 2" (316L, R _a < 0.8 µm)
Housing material	Aluminum
Sensor material	Stainless steel 316L, 318S

Ambient data

Ambient operating temperature	-40 °C ... +70 °C
Ambient temperature, storage	-40 °C ... +80 °C

Classifications

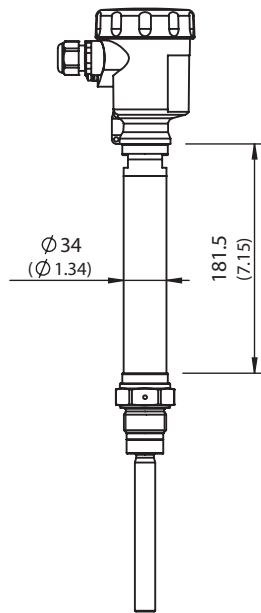
ECLASS 5.0	27273202
ECLASS 5.1.4	27273202
ECLASS 6.0	27273202
ECLASS 6.2	27273202
ECLASS 7.0	27273202
ECLASS 8.0	27273202
ECLASS 8.1	27273202
ECLASS 9.0	27273202
ECLASS 10.0	27273202
ECLASS 11.0	27273202
ECLASS 12.0	27273106
ETIM 5.0	EC002654
ETIM 6.0	EC002654
ETIM 7.0	EC002654
ETIM 8.0	EC002654
UNSPSC 16.0901	41111938

Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
China RoHS	✓
FDA certificate	✓

ATEX certificate	✓
EAC certificate / DoC	✓

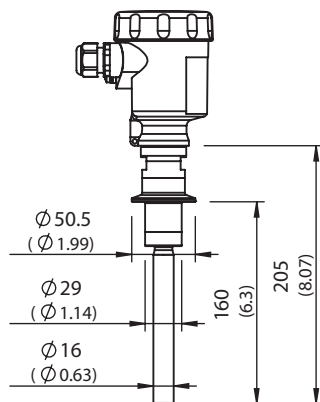
Dimensional drawing LBV311 temperature adapter -50 °C ... +250 °C



All dimensions in mm (inch)

Dimensions in mm (inch)

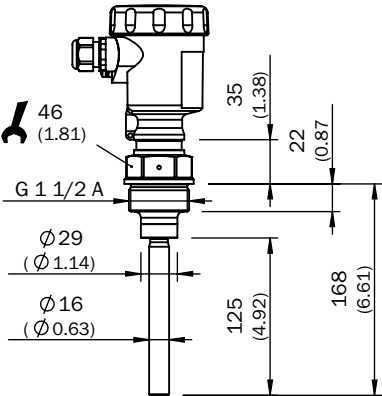
Dimensional drawing LBV311 threaded version Tri-Clamp



All dimensions in mm (inch)

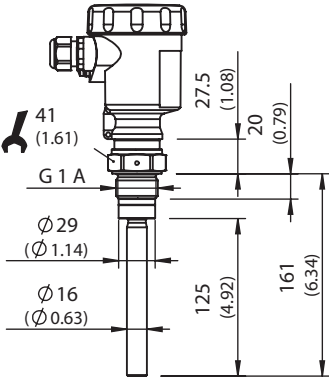
Dimensions in mm (inch)

Dimensional drawing LBV311 threaded version G 1 1/2 A



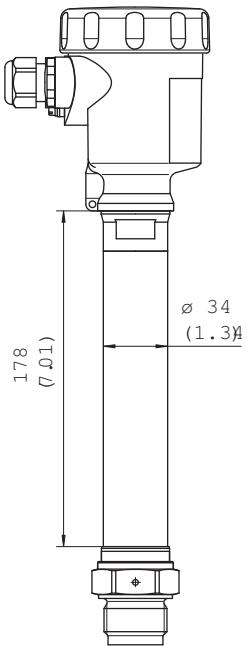
Dimensions in mm (inch)

Dimensional drawing LBV311 threaded version G 1 A



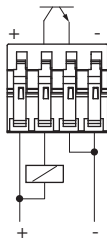
All dimensions in mm (inch)
Dimensions in mm (inch)

Dimensional drawing Temperature adapter

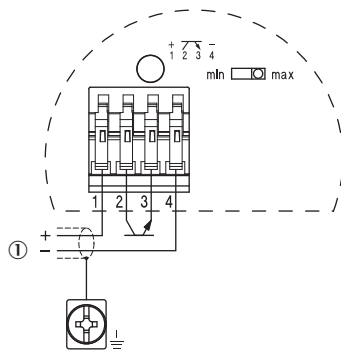


Dimensions in mm (inch)

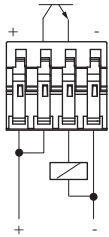
Connection diagram NPN action



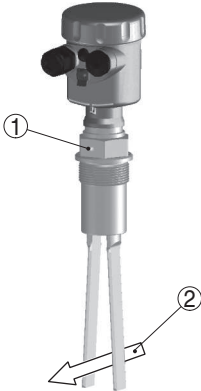
Connection diagram Transistor connection diagram



Connection diagram PNP action

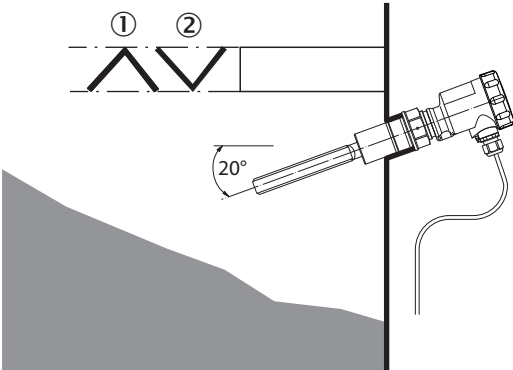


Instruction for installation Flow orientation of the tuning fork



- ① Marking with screwed version
- ② Direction of flow

Instruction for installation Horizontal mounting



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

Recommended accessories

Other models and accessories → www.sick.com/LBV3xx

	Brief description	Type	part no.
Mounting systems			
	<ul style="list-style-type: none">• Description: Locking screw connection, process pressure -1 bar to 16 bar, process connection G 2 A, inner thread G 1 1/2 A• Material: Stainless steel• Details: Stainless steel 316L	BEF-MU-316G20-ALBV	5322462

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