



LBV320-XXTGD TKMX02000

LBV300

LEVEL SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
LBV320-XXTGDTKMX02000	6065850

Other models and accessories → www.sick.com/LBV300

Detailed technical data

Features

Medium	Bulk solids
Measurement	Switch
Probe length	2,000 mm
Process pressure	-1 bar ... 6 bar
Process temperature	-20 °C ... +80 °C
Fill material density	≥ 0.008
Particle size	< 10 mm
Tensile strength	≤ 3,000 N

Performance

Accuracy of sensor element	± 10 mm
Reproducibility	≤ 5 mm
Response time	500 ms when covered / 1,000 ms when uncovered

Electronics

Residual ripple	≤ 5 V _{pp}
Initialization time	< 2 s
VDE protection class 2	✓
Connection type	M20 x 1.5
Output signal	1 x PNP/NPN
Supply voltage	Volt-free transistor output PNP/ NPN: 10 V DC ... 55 V DC
Hysteresis	10 mm
Signal voltage HIGH	U _v -3 V
Signal voltage LOW	< 1 V
Output current	< 300 mA
Inductive load	≤ 1 H
Capacitive load	100 nF
Enclosure rating	IP66 / IP67

Mechanics

Process connection	G 1½ A PN 25
Housing material	Plastic
Sensor material	Stainless steel 316L, 318LN, PUR

Ambient data

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

Classifications

ECI@ss 5.0	27273202
ECI@ss 5.1.4	27273202
ECI@ss 6.0	27273202
ECI@ss 6.2	27273202
ECI@ss 7.0	27273202
ECI@ss 8.0	27273202
ECI@ss 8.1	27273202
ECI@ss 9.0	27273202
ECI@ss 10.0	27273202
ECI@ss 11.0	27273202
ETIM 5.0	EC002654
ETIM 6.0	EC002654
ETIM 7.0	EC002654
UNSPSC 16.0901	41111938

Type code

LBV320 type code

Certification

XX	without
CX	ATEX II 1G, ½ G, 2G Ex ia IIC T6
CK	ATEX II 1G, ½ G, 2G Ex ia IIC T6+ATEX II 1/2D IP6X T
GX	ATEX II ½ D IP6X T

Execution / Process temperature

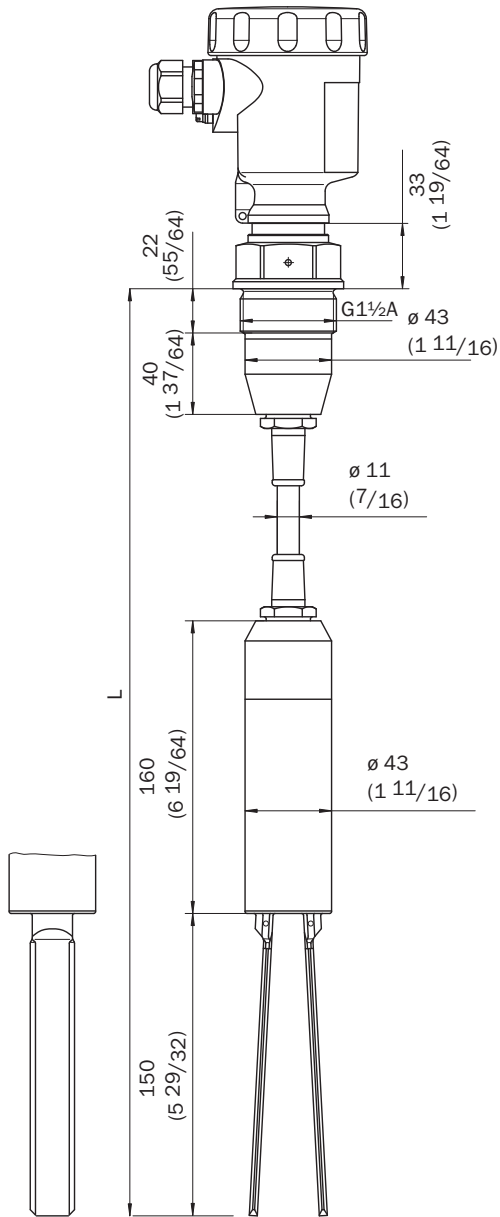
C	Cable PUR, detection of solids in water / -20 °C ... +80 °C
H	Cable FEP / -40 °C ... +150 °C
T	Cable PUR / -20 °C ... +80 °C

Process connection / Material

XX	Without / 316L
GD	Thread G 1 ½ A, PN 16 / 316L
ND	Thread 1 ½" NPT, PN 16 / 316L
EF	Flange DN 50, PN 40, form C, DIN 2501 / 316L
No er- ror	Flange DN 80, PN 40, form C, DIN 2501 / 316L
ZF	Flange DN 100, PN 6, form C, DIN 2501 / 316L
MF	Flange DN 100, PN 16, form C, DIN 2501 / 316L
OF	Flange DN 100, PN 40, form C, DIN 2501 / 316L
QF	Flange DN150, PN 16, form C, DIN 2501 / 316L
2F	Flange DN 200, PN 10, form C, DIN 2501 / 316L
EB	Flange DN 50, PN 40, EN 1092-1, form B1 / 316L
HA	Flange 2", 150 lb RF, ANSI B16.5 / 316L
HE	Flange 2", 150 lb FF, ANSI B16.5 / 316L
IA	Flange 2", 300 lb RF, ANSI B16.5 / 316L

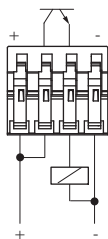
Length 480 up to max. 80,000 mm

LBV320 with PUR suspension cable, threaded version G 1½ A (DIN ISO 228/1)

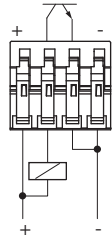


Connection diagram

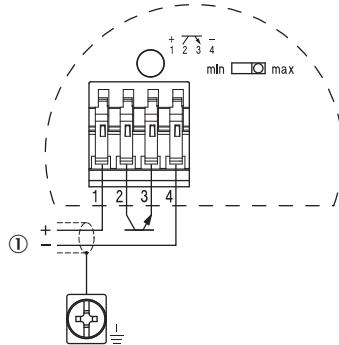
PNP action



NPN action

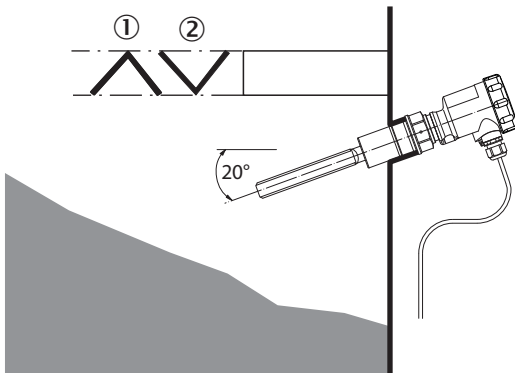


Transistor connection diagram



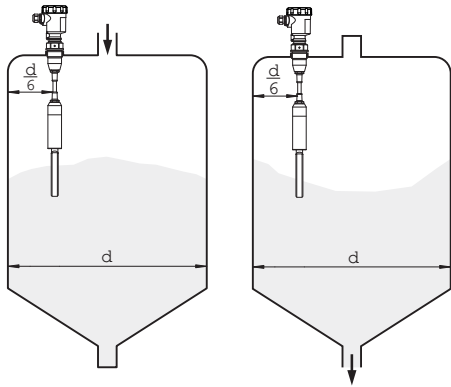
Instruction for installation

Horizontal mounting

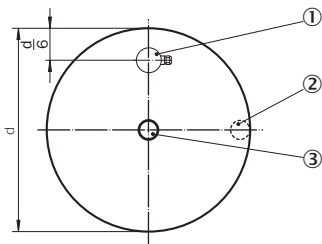
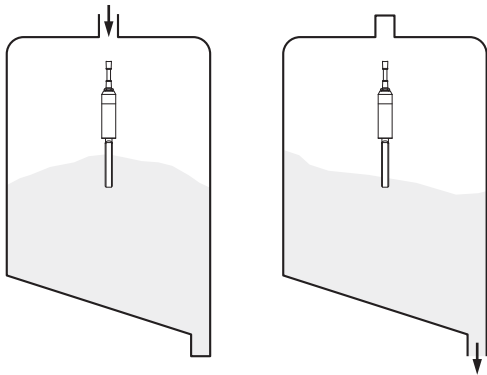


- ① Protective sheet
- ② Concave protective sheet for abrasive solids

LBV320 Filling and emptying centered

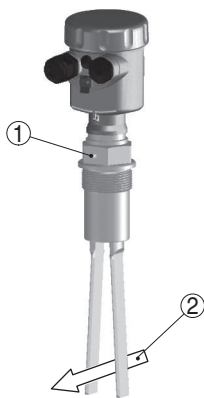


Filling in the center, emptying laterally



- ① LBV320
- ② Discharge opening
- ③ Filling opening

Flow orientation of the tuning fork



- ① Marking with screwed version
- ② Direction of flow

Recommended accessories

Other models and accessories → www.sick.com/LBV300

	Brief description	Type	Part no.
Mounting brackets and 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			
		ECD-RE-LB-VPNP-0001	6038667

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.”

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