



DATA SHEET

LFV310-CAGBVXPNX

LFV300
Level sensors

SICK

Sensor Intelligence



Illustration may differ

LEVEL SENSORS

LFV310-CAGBVXPNX

ORDERING INFORMATION

Type	part no.
LFV310-CAGBVXPNX	6042693

Further device versions and accessories at www.sick.com/LFV300



DETAILED TECHNICAL DATA

FEATURES

Measurement	Switch
Probe length	66 mm
Process pressure	-1 bar ... 64 bar
Process temperature	-50 °C ... +150 °C, See safety notes for ATEX devices
Fill material density	0.5 g/cm³ ... 2.5 g/cm³
ATEX approval	ATEX II 1G, 1/2G, 2G Ex ia IIC T6 Ga, Ga/Gb, Gb +WHG
Type examination	PTB 16 ATEX 2008 X

PERFORMANCE

Accuracy of sensor element	± 2 mm
Reproducibility	≤ 1 mm
Viscosity	0.1 mPas ... 10,000 mPas
Response time	500 ms
MTBF	9,73*10^6 h

ELECTRONICS

Communication interface	-
Supply voltage	4.5 V DC ... 12 V DC
Residual ripple	≤ 5 V _{pp}
Power consumption	1 mA / 2,5 mA
Initialization time	< 2 s
VDE protection class 2	✓
Connection type	M20 x 1.5
Output signal	NAMUR signal
Electronics	NAMUR signal

Hysteresis	2 mm
Output current	1 mA / 2,5 mA
Enclosure rating	IP66 / IP67
Temperature drift	0.03 mm/K

MECHANICS

Wetted parts	Stainless steel 316L (optional Ra ≤ 0.8 µm)
Process connection	G ¾ A PN 64 / 1.4404
Housing material	Plastic
Sensor material	Stainless steel 1.4404

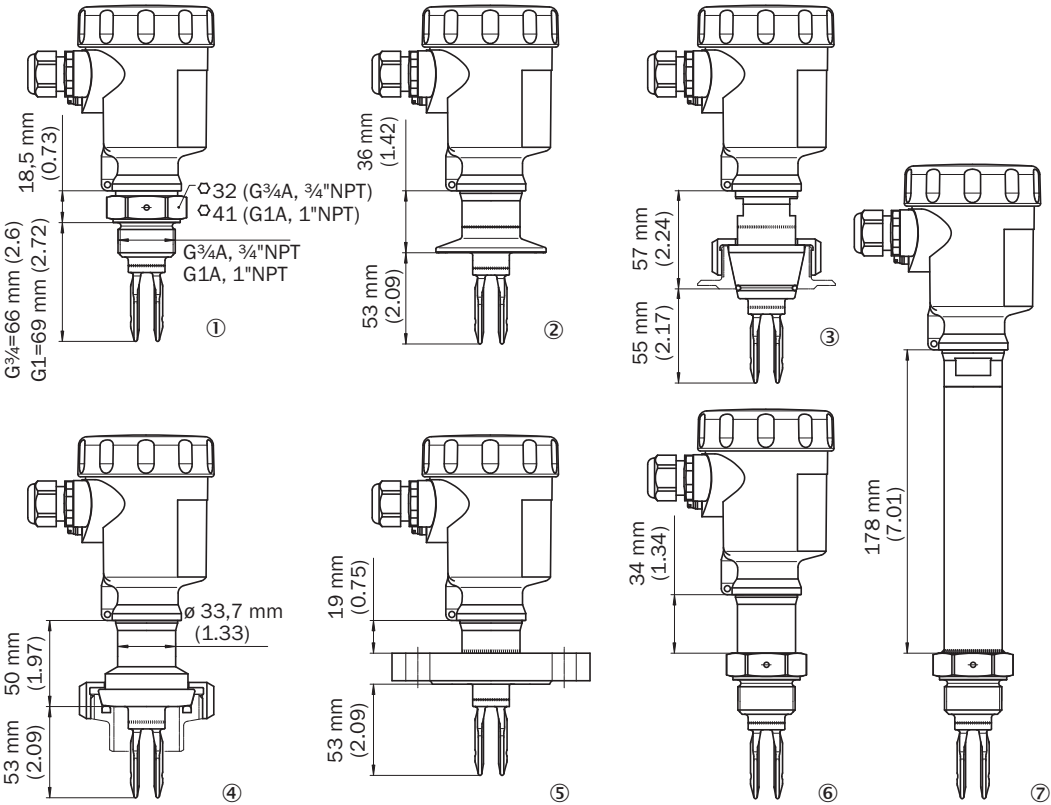
AMBIENT DATA

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

CERTIFICATES

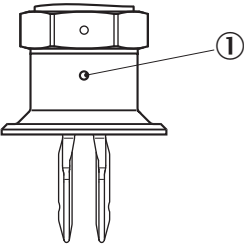
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
China RoHS	✓
FDA certificate	✓
ATEX certificate	✓

DIMENSIONAL DRAWING LFV310



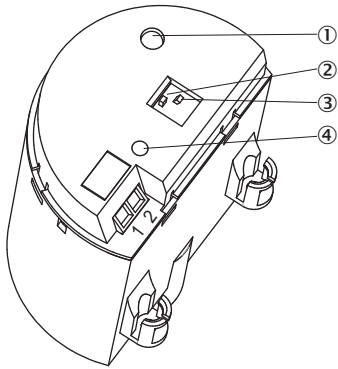
- Dimensions in mm (inch)
- ① Thread
 - ② Tri-Clamp
 - ③ DN 25 cone
 - ④ Bolting D 40
 - ⑤ Flange
 - ⑥ Gas-tight leadthrough
 - ⑦ Temperature adapter

DIMENSIONAL DRAWING MARKING ON THE WELDED FLANGE



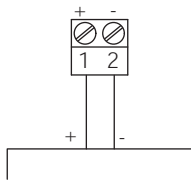
- Dimensions in mm (inch)
- ① Marking

CONNECTION DIAGRAM NAMUR - ELECTRONIC MODULE

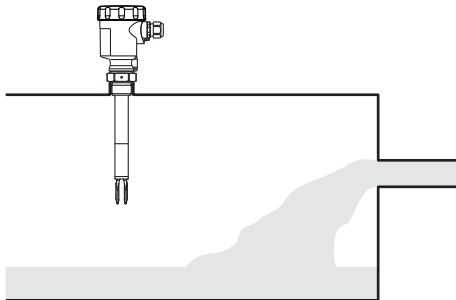


- ① Signal lamp (LED)
- ② DIL switch for characteristics reversal
- ③ DIL-switch for sensitivity adjustment
- ④ Simulation key

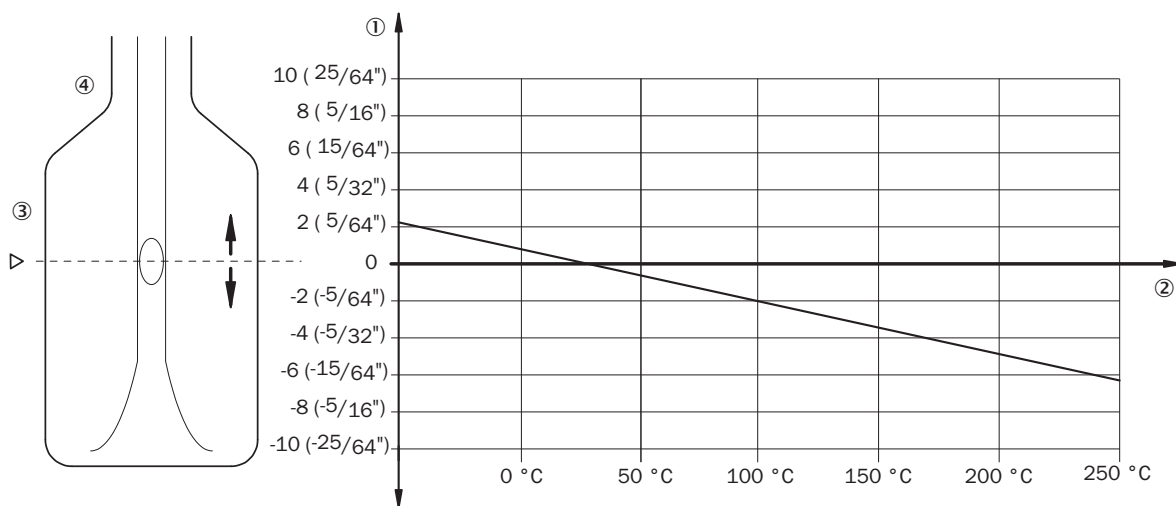
CONNECTION DIAGRAM NAMUR CONNECTION DIAGRAM



INSTRUCTION FOR INSTALLATION INFLOWING MEDIUM



CHARACTERISTIC CURVE INFLUENCE OF THE PROCESS TEMPERATURE ON THE SWITCHING POINT



- ① Shifting of the switching point in mm (in)
- ② Process temperature in °C (°F)
- ③ Switching point at reference conditions (notch)
- ④ Tuning fork

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/6042693



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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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