



LFV310-XXRAPXMTX

LFV300

LEVEL SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	part no.
LFV310-XXRAPXMTX	6053991

Other models and accessories → www.sick.com/LFV300

Illustration may differ



Detailed technical data

Features

Measurement	Switch
Probe length	66 mm
Process pressure	-1 bar ... 64 bar
Process temperature	-50 °C ... +150 °C
Fill material density	0.5 g/cm³ ... 2.5 g/cm³

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	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	2 mm
Output current	< 300 mA
Inductive load	≤ 1 H
Capacitive load	100 nF

Enclosure rating	IP66 / IP67
Temperature drift	0.03 mm/K

Mechanics

Wetted parts	Stainless steel 316L (optional $R_a \leq 0.8 \mu\text{m}$)
Process connection	DIN 40 pipe connection (PN 40, DIN 11851/316L, $R_a < 0.8 \mu\text{m}$)
Housing material	Aluminum
Sensor material	Stainless steel 1.4404

Ambient data

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

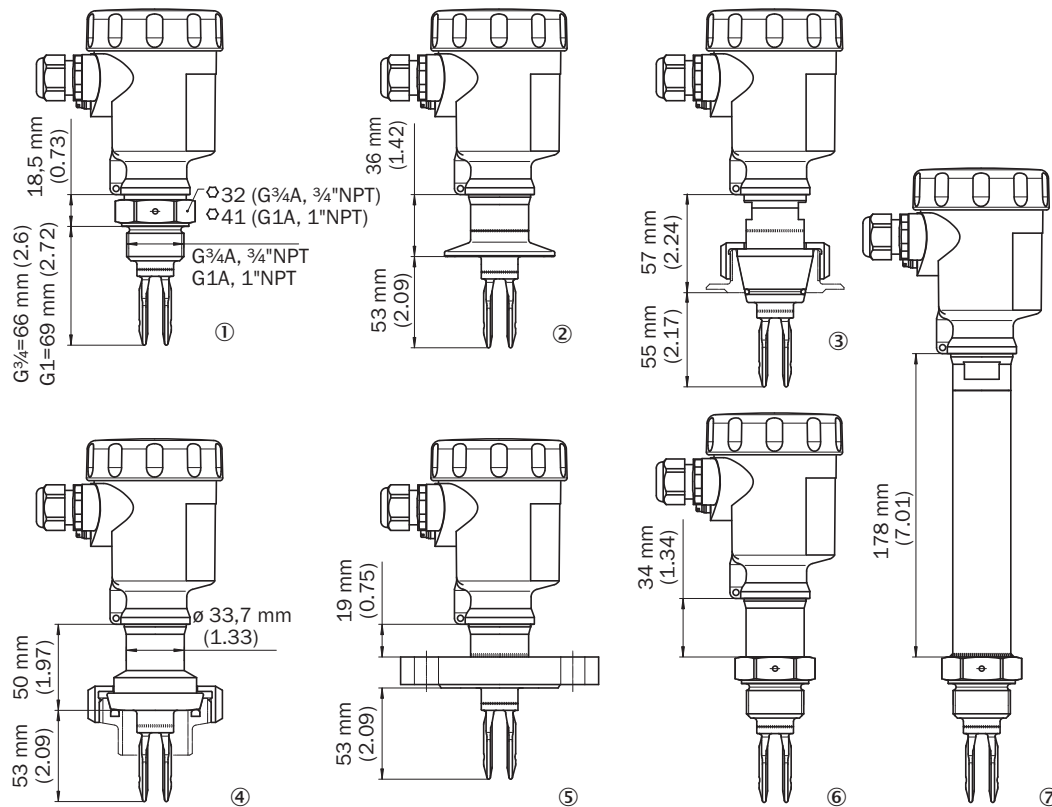
Certificates

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

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

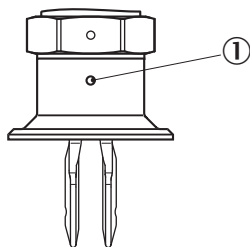
Dimensional drawing LFV310



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

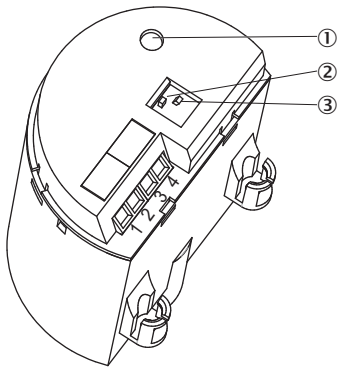
Dimensional drawing Marking on the welded flange



Dimensions in mm (inch)

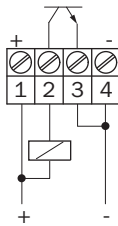
- ① Marking

Connection diagram Transistor - electronic module

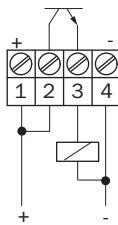


- ① Signal lamp (LED)
- ② DIL switch for mode adjustment
- ③ DIL-switch for sensitivity adjustment

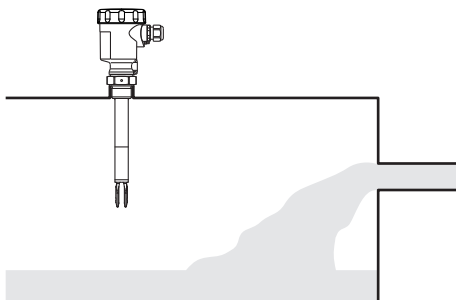
Connection diagram NPN action



Connection diagram PNP action



Instruction for installation Inflowing medium




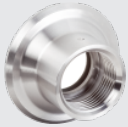




Characteristic curve Influence of the process temperature on the switching point



- 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

Recommended accessories

 Other models and accessories → www.sick.com/LFV300

	Brief description	Type	part no.
Mounting systems			
	<ul style="list-style-type: none"> Description: Lock nut fitting, process pressure –1 bar to 64 bar, G 1 A process connection, G 3/4 A female thread Material: Stainless steel Details: Stainless steel 316L 	BEF-MU-316G10-ALFV	5322463
	<ul style="list-style-type: none"> Description: Welded flange/welded connector, process connection G 1 Material: Stainless steel Details: Stainless steel 1.4404 	BEF-FL-GEWG10-LFV2	4054605
	<ul style="list-style-type: none"> Description: Welded flange/welded connector, G 3/4 process connection Material: Stainless steel Details: Stainless steel 1.4404 	BEF-FL-GEWG34-LFV2	4054604
	<ul style="list-style-type: none"> Description: Welded flange/welded connector, process connection Tri-Clamp 1" Material: Stainless steel Details: Stainless steel 1.4404 	BEF-FL-TCL110-LFV2	5321678
	<ul style="list-style-type: none"> Description: Welded flange/welded connector, process connection Tri-Clamp 2" Material: Stainless steel Details: Stainless steel 1.4404 	BEF-FL-TCL120-LFV2	5321679
	<ul style="list-style-type: none"> Description: Welded flange/welded connector, DIN11851-1, DN25 / PN40 Material: Stainless steel Details: Stainless steel 1.4404 	BEF-FL-851D25-LFV2	5321527
Power supply units and power supply cables			
	<ul style="list-style-type: none"> Description: Transistor (PNP/NPN): 10 V DC ... 55 V DC 	ECD-RE-LFVP-NP-0001	6038672

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