



# LFV310-DANAVXMRX

LFV300

LEVEL SENSORS

**SICK**  
Sensor Intelligence.



### Ordering information

| Type             | Part no. |
|------------------|----------|
| LFV310-DANAVXMRX | 6039767  |

Other models and accessories → [www.sick.de/LFV300](http://www.sick.de/LFV300)

Illustration may differ



### Detailed technical data

#### Features

|                              |                              |
|------------------------------|------------------------------|
| <b>Medium</b>                | Fluids                       |
| <b>Measurement</b>           | Switch                       |
| <b>Probe length</b>          | 66 mm                        |
| <b>Process pressure</b>      | -1 bar ... 64 bar            |
| <b>Process temperature</b>   | -50 °C ... +150 °C           |
| <b>Fill material density</b> | 0.5 g/cm³ ... 2.5 g/cm³      |
| <b>ATEX approval</b>         | ATEX II 1/2G, 2G Ex d IIC T6 |
| <b>Type examination</b>      | TÜV 09 ATEX 372527 X         |
| <b>GOST approval</b>         | ✓                            |
| <b>WHG approval</b>          | ✓                            |

#### Performance

|                                   |                          |
|-----------------------------------|--------------------------|
| <b>Accuracy of sensor element</b> | ± 2 mm                   |
| <b>Repeatability</b>              | ≤ 1 mm                   |
| <b>Viscosity</b>                  | 0.1 mPas ... 10,000 mPas |
| <b>Response time</b>              | 500 ms                   |

#### 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>             | 2 mm                                                            |
| <b>Output current</b>         | > 10 µA; < 3A AC, 1A DC                                         |
| <b>Inductive load</b>         | 750 VA 54 W                                                     |
| <b>Capacitive load</b>        | 750 VA 54 W                                                     |

|                          |                                |
|--------------------------|--------------------------------|
| <b>Contact load</b>      | Min. 50 mW / max. 750 VA, 54 W |
| <b>Enclosure rating</b>  | IP 66 / IP 67                  |
| <b>Temperature drift</b> | 0,03 mm/K                      |

## Mechanics

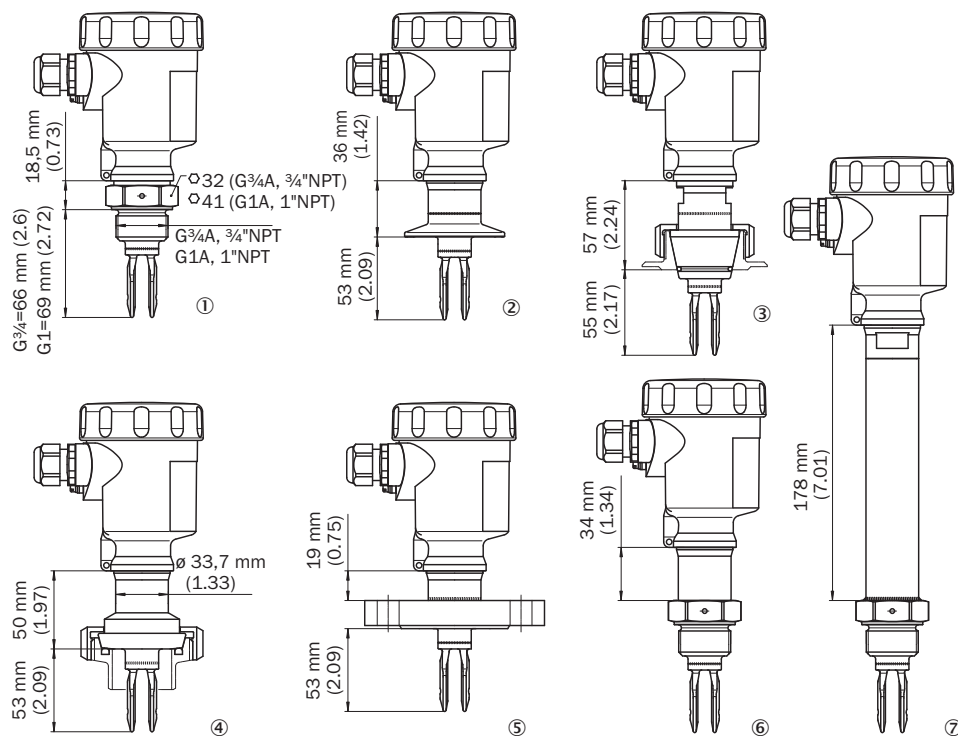
|                           |                                             |
|---------------------------|---------------------------------------------|
| <b>Wetted parts</b>       | Stainless steel 316L (optional Ra ≤ 0.8 µm) |
| <b>Process connection</b> | 1" NPT PN 64                                |
| <b>Housing material</b>   | Aluminum                                    |
| <b>Sensor material</b>    | Stainless steel 1.4404                      |

## Ambient data

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

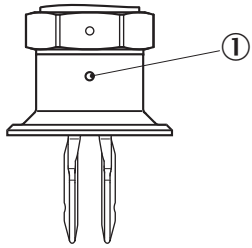
## Dimensional drawing (Dimensions in mm (inch))

### LFV310



- ① Thread
- ② Tri-Clamp
- ③ DN 25 cone
- ④ Bolting D 40
- ⑤ Flange
- ⑥ Gas-tight leadthrough
- ⑦ Temperature adapter

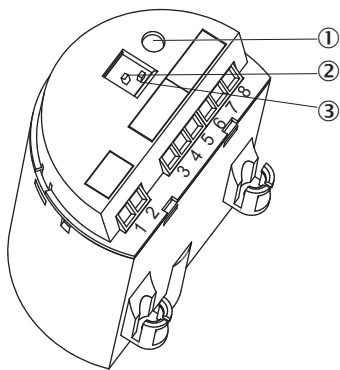
Marking on the welded flange



① Marking

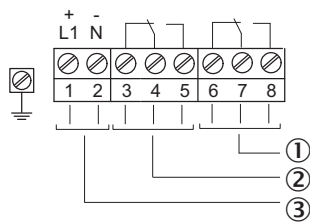
### Connection diagram

Relay - electronic module



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

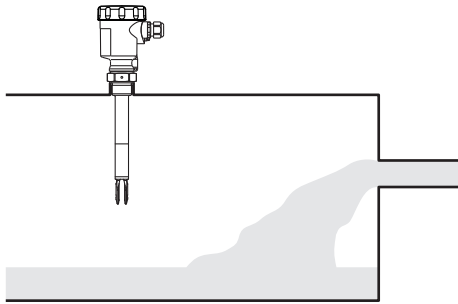
Relay connection diagram (single chamber housing)



- ① Relay output
- ② Relay output
- ③ Supply voltage

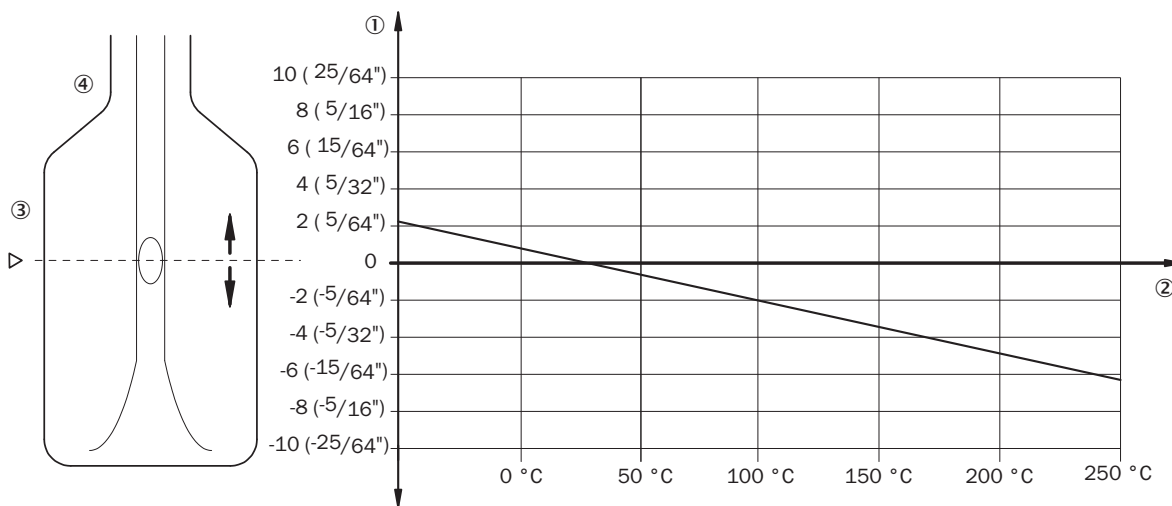
## Instruction for installation

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.de/LFV300](http://www.sick.de/LFV300)

|                                                                                     | Brief description                                                               | Type               | Part no. |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------|----------|
| Flanges                                                                             |                                                                                 |                    |          |
|  | Welded flange/welded connector, DIN11851-1, DN25 / PN40, Stainless steel 1.4404 | BEF-FL-851D25-LFV2 | 5321527  |
|  | Welded flange/welded connector, process connection G 1, Stainless steel 1.4404  | BEF-FL-GEWG10-LFV2 | 4054605  |

|                                                                                                                         | Brief description                                                                                                          | Type               | Part no. |
|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|--------------------|----------|
|                                        | Welded flange/welded connector, G 3/4 process connection, Stainless steel 1.4404                                           | BEF-FL-GEWG34-LFV2 | 4054604  |
|  | Welded flange/welded connector, process connection Tri-Clamp 1\", Stainless steel 1.4404                                   | BEF-FL-TCLI10-LFV2 | 5321678  |
|                                                                                                                         | Welded flange/welded connector, process connection Tri-Clamp 2\", Stainless steel 1.4404                                   | BEF-FL-TCLI20-LFV2 | 5321679  |
| Mounting brackets and mounting plates                                                                                   |                                                                                                                            |                    |          |
|                                                                                                                         | Lock nut fitting, process pressure -1 bar to 64 bar, G 1 A process connection, G 3/4 A female thread, stainless steel 316L | BEF-MU-316G10-ALFV | 5322463  |
| Electronic modules                                                                                                      |                                                                                                                            |                    |          |
|                                        | Double relay (DPDT): 20 V DC ... 72 V DC / 20 ... 250 V AC                                                                 | ECD-RE-LFVREL-0001 | 6038671  |

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