



# LFV330-DANBVXMR0100

LFV300

VIBRATING LEVEL SWITCH

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

| Type                | Part no. |
|---------------------|----------|
| LFV330-DANBVXMR0100 | 6063552  |

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

### Detailed technical data

#### Features

|                              |   |
|------------------------------|---|
| <b>Medium</b>                | Fluids  |
| <b>Measurement</b>           | Switch  |
| <b>Probe length</b>          | 100 mm  |
| <b>Process pressure</b>      | -1 bar ... 64 bar                                     |
| <b>Process temperature</b>   | -50 °C ... +150 °C, See safety notes for ATEX devices |
| <b>Fill material density</b> | 0.5 g/cm <sup>3</sup> ... 2.5 g/cm <sup>3</sup>       |
| <b>ATEX approval</b>         | ATEX II 1/2G Ex db IIC T6...T2 Ga/Gb +WHG             |
| <b>Type examination</b>      | DEKRA 16 ATEX 0130 X                                  |
| <b>WHG approval</b>          | ✓   |

#### Performance

|                                   |                          |
|-----------------------------------|--------------------------|
| <b>Accuracy of sensor element</b> | ± 2 mm                   |
| <b>Reproducibility</b>            | ≤ 1 mm                   |
| <b>Viscosity</b>                  | 0.1 mPas ... 10,000 mPas |
| <b>Response time</b>              | 500 ms                   |
| <b>MTBF</b>                       | 9,73*10 <sup>6</sup> h   |

#### Electronics

|                               |   |
|-------------------------------|---|
| <b>Power consumption</b>      | 5 mA ... 30 mA  |
| <b>Initialization time</b>    | < 2 s   |
| <b>VDE protection class 1</b> | ✓   |
| <b>Connection type</b>        | M20 x 1.5   |
| <b>Output signal</b>          | Double relay (DPDT)   |
| <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>  | IP66 / IP67                    |
| <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> | ¾" 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 temperature, storage</b>  | -40 °C ... +80 °C |

Classifications

|                       |          |
|-----------------------|----------|
| <b>ECLASS 5.0</b>     | 27273202 |
| <b>ECLASS 5.1.4</b>   | 27273202 |
| <b>ECLASS 6.0</b>     | 27273202 |
| <b>ECLASS 6.2</b>     | 27273202 |
| <b>ECLASS 7.0</b>     | 27273202 |
| <b>ECLASS 8.0</b>     | 27273202 |
| <b>ECLASS 8.1</b>     | 27273202 |
| <b>ECLASS 9.0</b>     | 27273202 |
| <b>ECLASS 10.0</b>    | 27273202 |
| <b>ECLASS 11.0</b>    | 27273202 |
| <b>ECLASS 12.0</b>    | 27273106 |
| <b>ETIM 5.0</b>       | EC002654 |
| <b>ETIM 6.0</b>       | EC002654 |
| <b>ETIM 7.0</b>       | EC002654 |
| <b>ETIM 8.0</b>       | EC002654 |
| <b>UNSPSC 16.0901</b> | 41111938 |

Type code

LFV330 type code

**Certification**

|    |  |
|----|--|
| XX | Without approval                                     |
| XA | WHG approval   |
| CA | ATEX II 1G, 1/2G, 2G Ex ia IIC T6 Ga, Ga/Gb, Gb +WHG |
| DA | ATEX II 1/2G Ex db IIC T6...T2 Ga/Gb +WHG            |

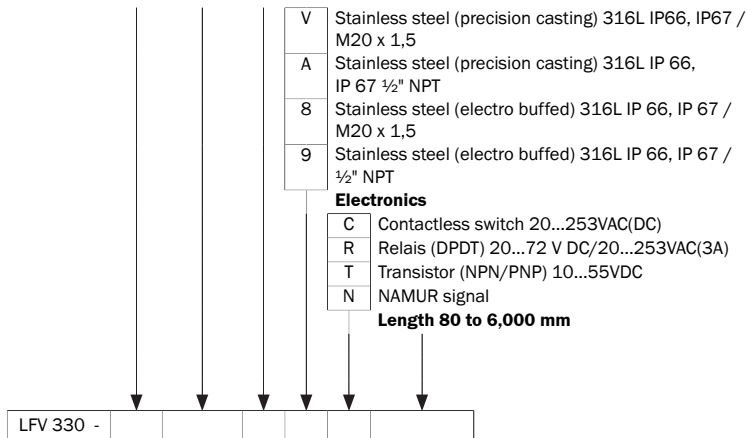
**Process connection/Material (see below)**

**Middle section / Process temperature**

|   |                              |
|---|------------------------------|
| X | without / -50 °C ... +150 °C |
| T | with / -50 °C ... +250 °C    |

**Housing / Cable screw connection**

|   |                                    |
|---|------------------------------------|
| P | Plastics IP 66, IP 67 / M20 x 1,5  |
| N | Plastics IP 66, IP 67 / ½" NPT     |
| M | Aluminium IP 66, IP 67 / M20 x 1,5 |
| U | Aluminium IP 66, IP 67 / ½" NPT    |



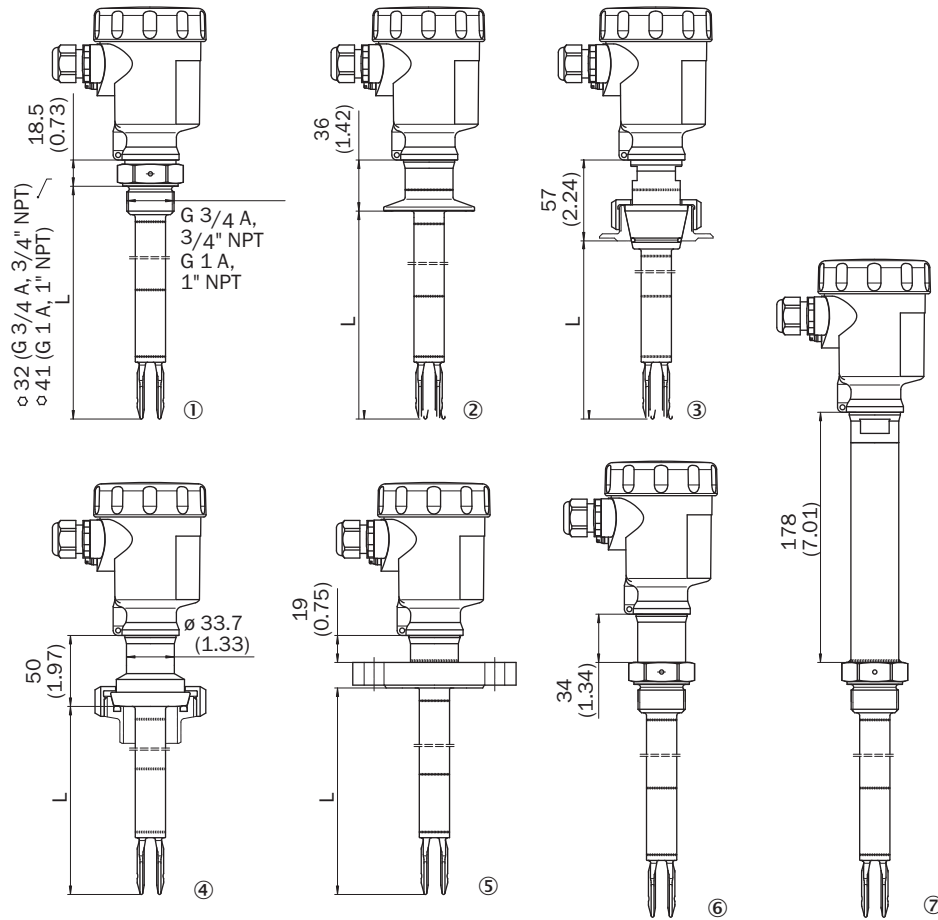
Not all variations of the type code can be combined! Not all available variations are shown.

### Process connection/Material

|     |   |     |   |
|-----|---|-----|---|
| GBV | Thread G 3/4 A PN 64 / 316L             | PLV | Flange DN 125, PN 40 Form N, DIN 2501 / 316L              |
| GBP | Thread G 3/4 A PN 64 / 316L Ra<0,8µm    | FMV | Flange DN 150, PN 16 Form C, DIN 2501 / 316L              |
| NBV | Thread 3/4" NPT PN 64 / 316L            | MMV | Flange DN 150, PN 16 Form D, DIN 2501 / 316L              |
| NBP | Thread 3/4" NPT PN 64 / 316L Ra<0,8µm   | FVV | Flange DN 150, PN 40 Form C, DIN 2501 / 316L              |
| GAV | Thread G 1 A PN 64 / 316L               | OVV | Flange DN 150, PN 40 Form F, DIN 2501 / 316L              |
| GAP | Thread G 1 A PN 64 / 316L Ra<0,8µm      | PVV | Flange DN 150, PN 40 Form N, DIN 2501 / 316L              |
| NAV | Thread 1" NPT PN 64 / 316L              | FQV | Flange DN 200, PN 16 Form C, DIN 2501 / 316L              |
| NAP | Thread 1" NPT PN 64 / 316L Ra<0,8µm     | F5V | Flange DN 250, PN 10 Form C, DIN 2501 / 316L              |
| GCV | Thread G 1 1/2 A PN 64 / 316L           | UCV | Flange DN 40, PN 40 V13, DIN 2501 / 316L                  |
| NCV | Thread 1 1/2" NPT PN 64 / 316L          | FEV | Flange DN 50, PN 40 Form C, DIN 2501 / 316L               |
| TAP | Varivent N50-40 / 316L Ra<0,8µm ZB3052  | RCP | Fitting DN 25, PN 40, DIN 11851 / 316L Ra<0,8µm           |
| TNP | Varivent N25-100 / 316L Ra<0,8µm ZB3052 | REP | Fitting DN 32, PN 40, DIN 11851 / 316L Ra<0,8µm           |
| CCP | Tri-Clamp 1" PN 16 / 316L Ra<0,8µm      | RAP | Fitting DN 40, PN 40, DIN 11851 / 316L Ra<0,8µm           |
| CBP | Tri-Clamp 1 1/2" PN 16 / 316L Ra<0,8µm  | RFP | Fitting DN 40, PN 40, DIN 11864-1A / 316L Ra<0,8µm ZB3052 |
| CAP | Tri-Clamp 2" PN 16 / 316L Ra<0,8µm      | RBP | Fitting DN 50, PN 25, DIN 11851 / 316L Ra<0,8µm           |
| CDP | Tri-Clamp 2 1/2" PN 10 / 316L Ra<0,8µm  | RDP | Fitting DN 50, PN 25, DIN 11864-1A / 316L Ra<0,8µm ZB3052 |
| CEP | Tri-Clamp 3" PN 10 / 316L Ra<0,8µm      |     |   |

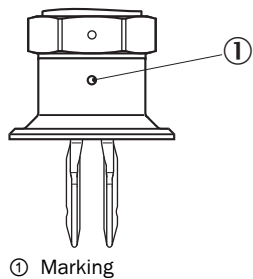
Dimensional drawing (Dimensions in mm (inch))

LFV330



- 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



### Connection diagram

Relay - electronic module



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

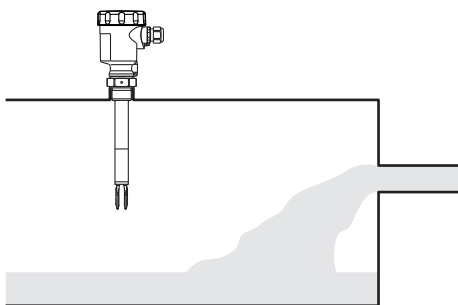
Relay connection diagram (single chamber housing)



- 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.com/LFV300](http://www.sick.com/LFV300)

|   | Brief description   | Type               | Part no. |
|---|---|--------------------|----------|
| <b>Electronic modules</b>   |   |                    |          |
|   | Double relay (DPDT): 20 V DC ... 72 V DC / 20 ... 250 V AC                              | ECD-RE-LFVREL-0001 | 6038671  |
| <b>Flanges</b>  |   |                    |          |
|  | 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  |
|  | 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  |
| <b>Mounting brackets and plates</b>   |   |                    |          |
|   | BEF-MU-316G10-ALFV  | BEF-MU-316G10-ALFV | 5322463  |

## SICK AT A GLANCE

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Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

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