



# LFBV330-CAGBVTPN0200

LFBV300

LEVEL SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

| Type               | Part no. |
|--------------------|----------|
| LFV330-CAGBVTPO200 | 6054451  |

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>          | 200 mm  |
| <b>Process pressure</b>      | -1 bar ... 64 bar                                     |
| <b>Process temperature</b>   | -50 °C ... +250 °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 1G, 1/2G, 2G Ex ia IIC T6 Ga, Ga/Gb, Gb +WHG  |
| <b>Type examination</b>      | PTB 16 ATEX 2008 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>Residual ripple</b>        | ≤ 5 V <sub>pp</sub>                |
| <b>Power consumption</b>      | 1 mA / 2,5 mA                      |
| <b>Initialization time</b>    | < 2 s                              |
| <b>VDE protection class 2</b> | ✓                                  |
| <b>Connection type</b>        | M20 x 1.5                          |
| <b>Output signal</b>          | NAMUR signal                       |
| <b>Supply voltage</b>         | NAMUR signal: 4.5 V DC ... 12 V DC |
| <b>Hysteresis</b>             | 2 mm                               |
| <b>Output current</b>         | 1 mA / 2,5 mA                      |
| <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> | G ¾ A PN 64 / 1.4404                        |
| <b>Housing material</b>   | Plastic                                     |
| <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    |

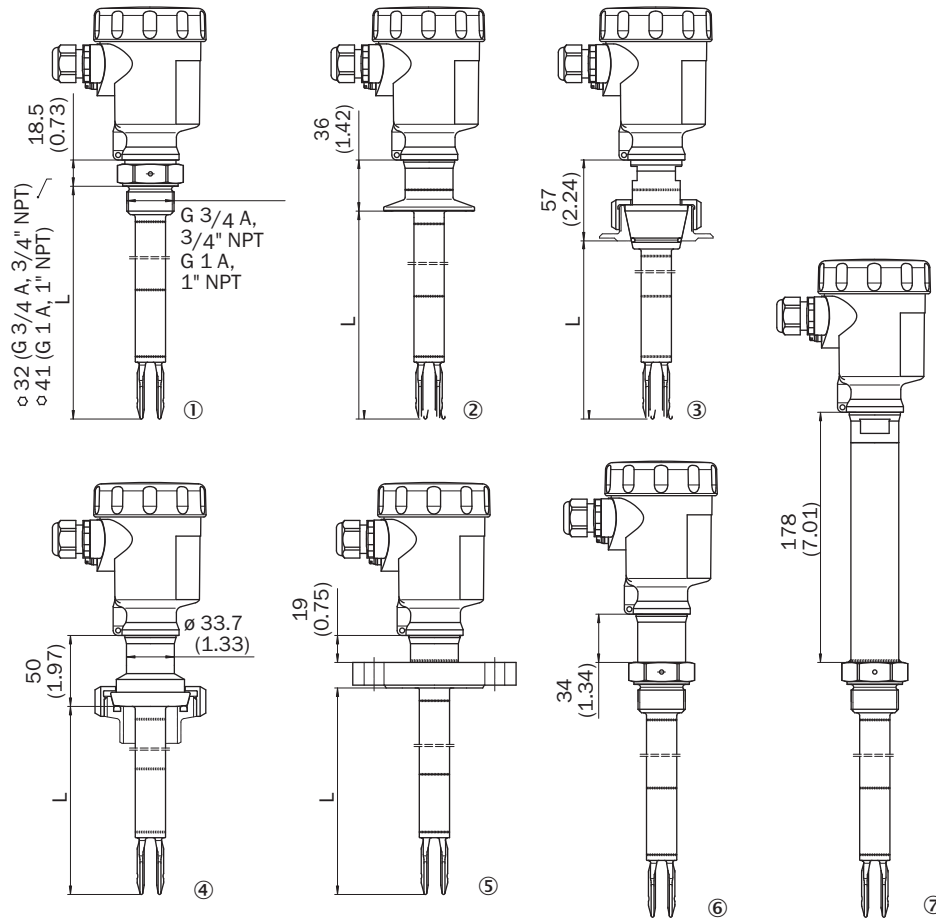
**Housing / Cable screw connection**

|   |   |
|---|---|
| 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                                 |
| V | Stainless steel (precision casting) 316L IP66, IP67 / M20 x 1,5 |
| A | Stainless steel (precision casting) 316L IP 66, IP 67 ½" NPT    |



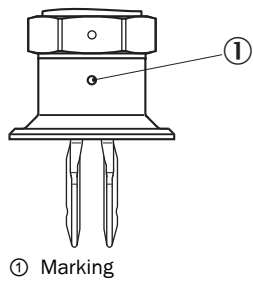
Dimensional drawing (Dimensions in mm (inch))

LFV330



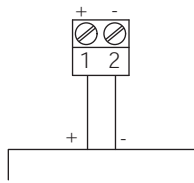
- ① Thread
- ② Tri-Clamp
- ③ DN 25 cone
- ④ Bolting D 40
- ⑤ Flange
- ⑥ Gas-tight leadthrough
- ⑦ Temperature adapter

Marking on the welded flange

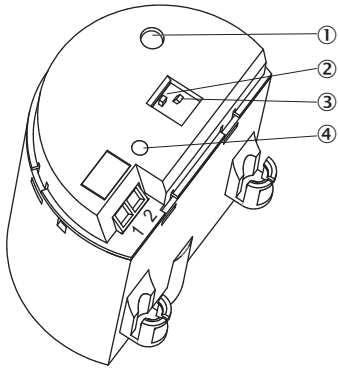


### Connection diagram

Namur connection diagram



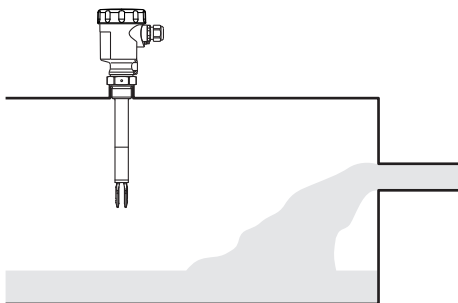
Namur - electronic module



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

### 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>   |   |                     |          |
|   | Namur signal: 4.5 V DC ... 12 V DC  | ECD-RE-LFV-NAM-0001 | 6038670  |
| <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

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