



## Level sensors Vibrating level switch, LFV310

LFV310-DAFTVXMTX



**Model Name** > **LFV310-DAFTVXMTX**  
**Part No.** > **6041204**



*Illustration may differ*

#### At a glance

- Several housing materials and electrical outputs available
- Commissioning without filling
- Process temperature up to 250 °C
- Immune to deposit formation
- Very high repeatability
- Aseptic versions according to EHEDG and FDA available, CIP and SIP resistant
- ATEX and marine certifications available

#### Your benefits

- Easy installation and commissioning, no calibration necessary
- Easy operation and integration, saves time
- Maintenance-free sensor, reduces downtime
- Testing in place possible - no mounting required, which reduces installation time
- Flexible and tough system for a multitude of applications
- Universal technology works in all kinds of liquids



#### Features

|                        |                              |
|------------------------|------------------------------|
| Medium:                | Fluids                       |
| Measurement:           | Switch                       |
| Probe length:          | 53 mm                        |
| Process pressure:      | -1 bar ... 64 bar            |
| Process temperature:   | -50 °C ... 150 °C            |
| WHG approval:          | ✓                            |
| ATEX approval:         | ATEX II 1/2G, 2G Ex d IIC T6 |
| Fill material density: | 0.5 ... 2.5                  |
| Type examination:      | TÜV 09 ATEX 372527 X         |

#### Performance

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

#### Mechanical data

|                     |                                        |
|---------------------|----------------------------------------|
| Housing material:   | Aluminum                               |
| Process connection: | Flange DN 25 PN6 Form C, DIN 2501/316L |

Wetted parts:  
Sensor material:

Stainless steel 316L (optional  $Ra \leq 0.8 \mu m$ )  
Stainless steel 1.4404

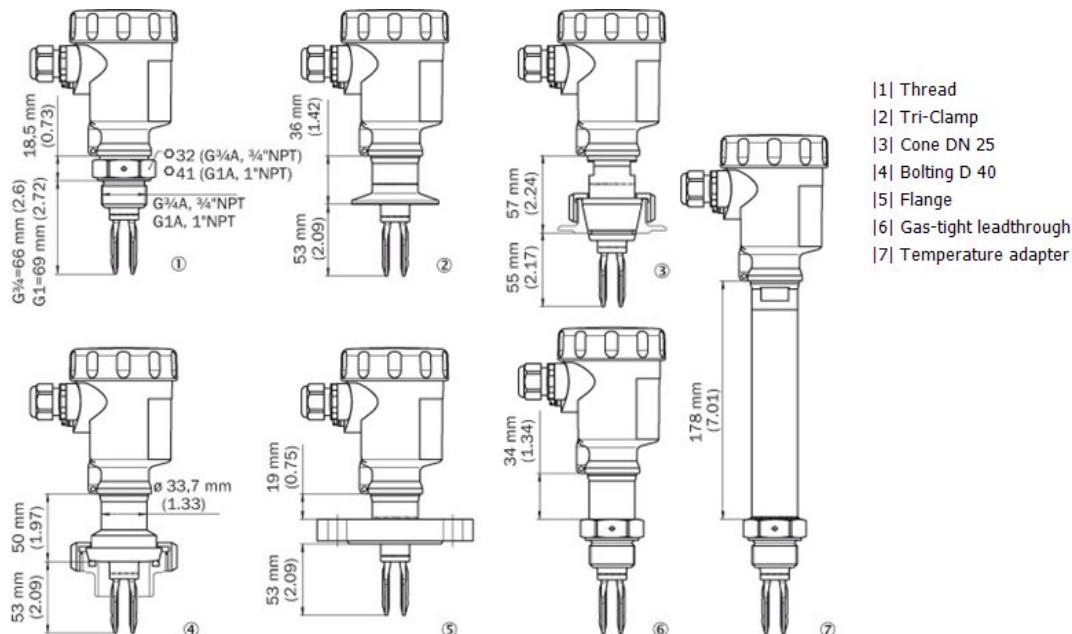
#### Electrical data

|                         |                                                 |
|-------------------------|-------------------------------------------------|
| Temperature drift:      | 0,03 mm/K                                       |
| Enclosure rating:       | IP 66                                           |
| Ripple:                 | $\leq 5 V_{pp}$                                 |
| Power consumption:      | $< 10 mA$                                       |
| VDE protection class 1: | -                                               |
| VDE protection class 2: | ✓                                               |
| Initialization time:    | 2                                               |
| Output signal:          | Transistor output PNP/ NPN: 10 V DC ... 55 V DC |
| Hysteresis:             | 2 mm                                            |
| Output current:         | $< 300 mA$                                      |
| Signal voltage HIGH:    | $U_v - 3 V$                                     |
| Signal voltage LOW:     | $< 1 V$                                         |
| Capacitive load:        | 100                                             |
| Inductive load:         | 1 H                                             |
| Connection type:        | M20 x 1.5                                       |

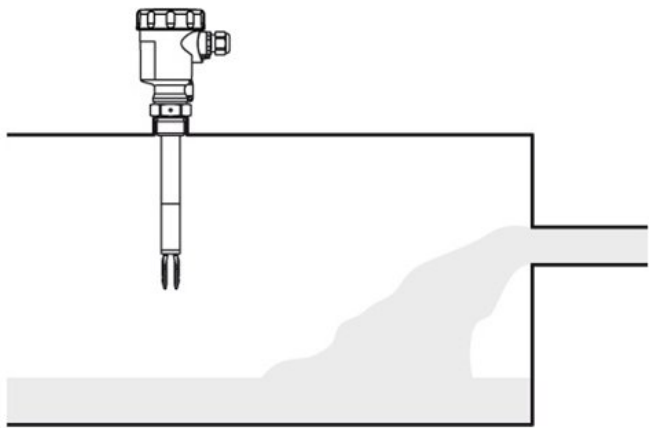
#### Ambient data

|                                |                  |
|--------------------------------|------------------|
| Ambient operating temperature: | -40 °C ... 70 °C |
| Ambient storage temperature:   | -40 °C ... 80 °C |

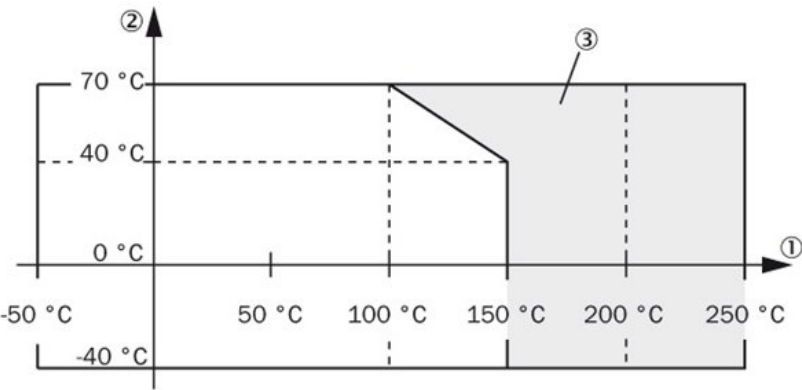
#### Dimensional drawing



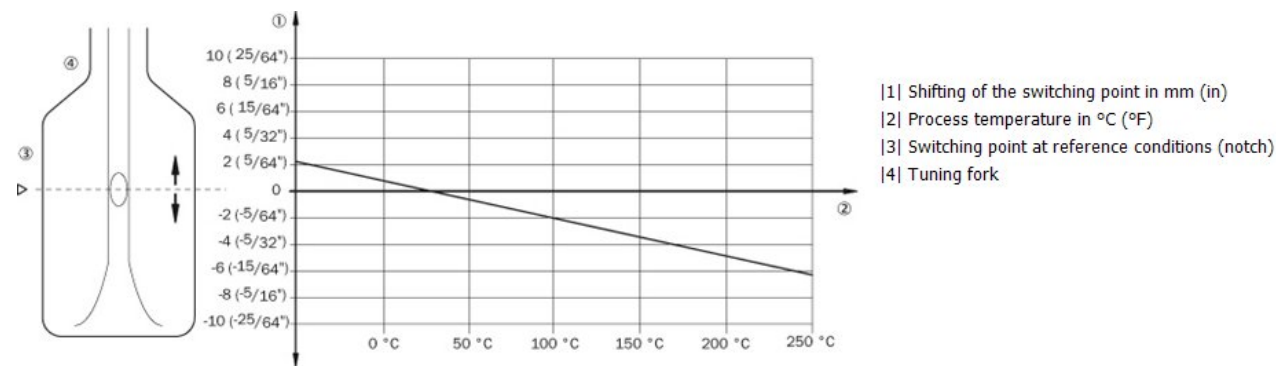
Instruction for installation



Ambient temperature - process temperature



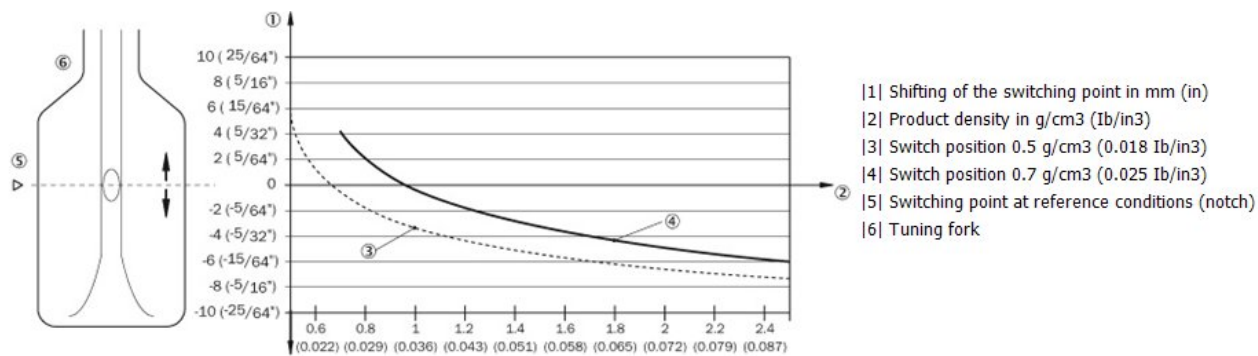
Influence of the process temperature on the switching point



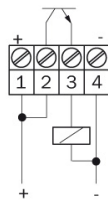
Influence of the process temperature to the switching point



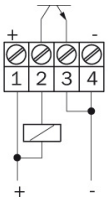
Influence of the product density on the switching point



PNP action



NPN action



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