



# LFV230-XAHCLTPM0150

LFV200

**LEVEL SENSORS**

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

| Type                | Part no. |
|---------------------|----------|
| LFV230-XAHCLTPM0150 | 6050216  |

Other models and accessories → [www.sick.com/LFV200](http://www.sick.com/LFV200)

### Detailed technical data

#### Features

|                              |                         |
|------------------------------|-------------------------|
| <b>Medium</b>                | Fluids                  |
| <b>Measurement</b>           | Switch                  |
| <b>Probe length</b>          | 150 mm                  |
| <b>Process pressure</b>      | -1 bar ... 64 bar       |
| <b>Process temperature</b>   | -40 °C ... +150 °C      |
| <b>Fill material density</b> | 0.7 g/cm³ ... 2.5 g/cm³ |
| <b>WHG approval</b>          | ✓                       |
| <b>Authorizations</b>        | WHG approval            |
| <b>EHEDG 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>Resolution</b>                 | ≤ 1 mm                   |
| <b>Response time</b>              | 500 ms                   |
| <b>MTBF</b>                       | 1,3*10 <sup>7</sup> h    |

#### Electronics

|                               |                                |
|-------------------------------|--------------------------------|
| <b>Supply voltage</b>         | 9.6 V DC ... 35 V DC           |
| <b>Residual ripple</b>        | ≤ 5 V <sub>pp</sub>            |
| <b>Power consumption</b>      | < 10 mA                        |
| <b>Initialization time</b>    | < 2 s                          |
| <b>VDE protection class 2</b> | ✓                              |
| <b>Connection type</b>        | M12 round connector x 1, 4-pin |
| <b>Output signal</b>          | Transistor output PNP          |
| <b>Hysteresis</b>             | 2 mm                           |
| <b>Signal voltage HIGH</b>    | V <sub>s</sub> - 3 V           |
| <b>Signal voltage LOW</b>     | 0 V +/- 1 V                    |

|                          |           |
|--------------------------|-----------|
| <b>Output current</b>    | < 250 mA  |
| <b>Inductive load</b>    | ≤ 1 H     |
| <b>Capacitive load</b>   | 100 nF    |
| <b>Enclosure rating</b>  | IP67      |
| <b>Temperature drift</b> | 0.03 mm/K |

## Mechanics

|                           |                                      |
|---------------------------|--------------------------------------|
| <b>Wetted parts</b>       | Stainless steel 1.4404 (Ra ≤ 0,8 µm) |
| <b>Process connection</b> | Triclamp 1" (PN 16, 316L, Ra<0.8µm)  |
| <b>Housing material</b>   | Stainless steel 1.4404, PEI          |

## Ambient data

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

## Classifications

|                       |          |
|-----------------------|----------|
| <b>ECI@ss 5.0</b>     | 27273202 |
| <b>ECI@ss 5.1.4</b>   | 27273202 |
| <b>ECI@ss 6.0</b>     | 27273202 |
| <b>ECI@ss 6.2</b>     | 27273202 |
| <b>ECI@ss 7.0</b>     | 27273202 |
| <b>ECI@ss 8.0</b>     | 27273202 |
| <b>ECI@ss 8.1</b>     | 27273202 |
| <b>ECI@ss 9.0</b>     | 27273202 |
| <b>ECI@ss 10.0</b>    | 27273202 |
| <b>ECI@ss 11.0</b>    | 27273202 |
| <b>ETIM 5.0</b>       | EC002654 |
| <b>ETIM 6.0</b>       | EC002654 |
| <b>ETIM 7.0</b>       | EC002654 |
| <b>UNSPSC 16.0901</b> | 41111938 |

## Type code

### LFV230 type code

| Certification                   |                                                                              |
|---------------------------------|------------------------------------------------------------------------------|
| XX                              | without                                                                      |
| XA                              | Overfill protection in acc. with WHG (German Federal Water Act)              |
| Execution / Process temperature |                                                                              |
| S                               | Standard / -40 °C ... +100 °C                                                |
| T                               | Expanded / -40 °C ... +150 °C                                                |
| H                               | Hygiene applications / -40 °C ... +150 °C                                    |
| Process connection / Material   |                                                                              |
| GB                              | G ¾ A, PN 64 / 316L                                                          |
| NB                              | ¾" NPT, PN 64 / 316L                                                         |
| GA                              | G 1 A, PN 64 / 316L                                                          |
| NA                              | 1" NPT, PN 64 / 316L                                                         |
| CL                              | Tri-clamp 1", PN 16, L, Ra < 0.8 µm                                          |
| CN                              | Tri-clamp 2", PN 16, L, Ra < 0.8 µm                                          |
| RL                              | Conical adapter DN 25, DIN 11851 with coupling nut PN 40 / 316L, Ra < 0.8 µm |

## Electronics

## Housing

P 1.4404

**Electrical connection / Enclosure rating**

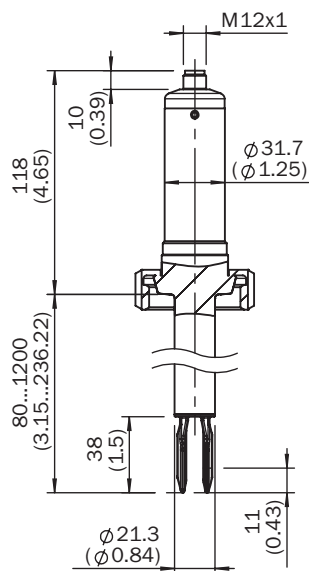
|   |                                            |
|---|--------------------------------------------|
| M | M12 x 1 / IP 67                            |
| V | DIN 43650 including male connector / IP 65 |

**Length 80 mm to 1,200 mm**

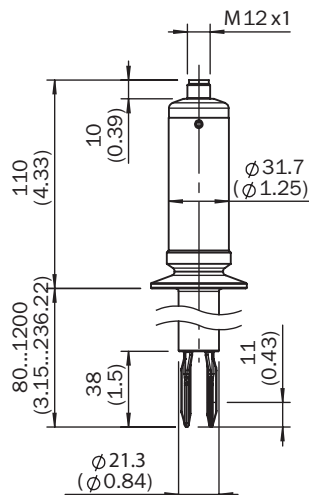
Not all variants of the type code can be combined!

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

## Dimensional drawing



## Dimensional drawing



## Recommended accessories

Other models and accessories → [www.sick.com/LFV200](http://www.sick.com/LFV200)

|                                                                                                                         | 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 DIN11851-1, DN40 / PN40, Stainless steel 1.4404          | BEF-FL-851D40-LFV2 | 5321459  |
|                                                                                                                         | Welded flange/welded connector DIN11851-1, DN50 / PN25, Stainless steel 1.4404          | BEF-FL-851D50-LFV2 | 5321528  |
|                                        | 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  |

## 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)