



# LFV200-XXTNAIPM

LFV200

LEVEL SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

| Type            | Part no. |
|-----------------|----------|
| LFV200-XXTNAIPM | 6066387  |

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>          | 67 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>IO-Link</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>         | 18 V DC ... 30 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 with IO-Link |
| <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      |
| <b>Process connection</b> | 1" NPT PN 64                |
| <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

### LFV200 type code

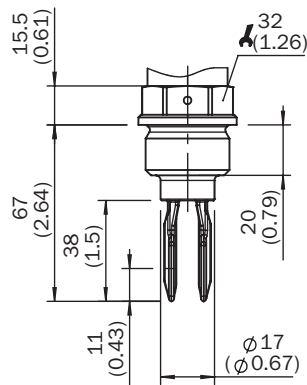
|                                        |                                                                 |
|----------------------------------------|-----------------------------------------------------------------|
| <b>Certification</b>                   |                                                                 |
| XX                                     | without                                                         |
| XA                                     | Overfill protection in acc. with WHG (German Federal Water Act) |
| <b>Execution / Process temperature</b> |                                                                 |
| S                                      | Standard / -40 °C ... +100 °C                                   |
| T                                      | Expanded / -40 °C ... +150 °C                                   |
| H                                      | Hygiene applications / -40 °C ... +150 °C                       |
| <b>Process connection / Material</b>   |                                                                 |
| GH                                     | G ½, DIN3852-A, PN 64 / 316L                                    |
| NH                                     | ½" NPT, ASME B1.20.1, PN 64 / 316L                              |
| 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 |
| RM                                              | Conical adapter DN 40, DIN 11851 with coupling nut PN 40 / 316L, Ra < 0.8 µm |
| RN                                              | Conical adapter DN 50, DIN 11851 with coupling nut PN 40 / 316L, Ra < 0.8 µm |
| GP                                              | G ¾ A, PN 64 / 316L, Ra < 0.8 µm                                             |
| NP                                              | ¾" NPT, PN 64 / 316L, Ra < 0.8 µm                                            |
| Mgmt                                            | G 1 A, PN 64 / 316L, Ra < 0.8 µm                                             |
| NL                                              | 1" NPT, PN 64 / 316L, Ra < 0.8 µm                                            |
| CM                                              | Tri-clamp 1 ½", PN 16, L, Ra < 0.8 µm                                        |
| RR                                              | SMS DN 38, PN 6, 316L, Ra < 0.8 µm                                           |
| LA                                              | Aseptic connection with grooved cap nut, F 40, DN 25, 316L, Ra < 0.8 µm      |
| R3                                              | Thread R ¾, PN 64, 316L, EN10226-1                                           |
| <b>Electronics</b>                              |                                                                              |
| C                                               | Contact-free switch, 20 ... 253 V AC/DC                                      |
| T                                               | PNP transistor output, 9.6 ... 35 V DC                                       |
| I                                               | PNP transistor output with IO-Link, 18 ... 30 V DC                           |
| <b>Housing</b>                                  |                                                                              |
| P                                               | 1.4404                                                                       |
| <b>Electrical connection / Enclosure rating</b> |                                                                              |
| M                                               | M12 x 1 / IP 67                                                              |
| V                                               | DIN 43650 including male connector / IP 65                                   |
| <b>Measuring point identification plate</b>     |                                                                              |
|                                                 | without                                                                      |
| L                                               | Fork length 115 mm                                                           |

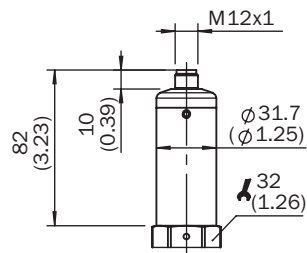
Not all variants of the type code can be combined!

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

Dimensional drawing process connection



Dimensional drawing housing



## 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  |
| Fieldbus modules                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |          |
|                                        | Number of IO-Link ports: 4; Communication mode: COM1/COM2; IO-Link version: IO-Link V1.0; Switching input: PNP; Supply voltage Vs, IO-Link ports: DC 24 V; Current loading: 800 mA; Data transmission rate: Max. 12 MBaud, Autobaud; Address space occupation: 1 bis 126; Connection type: Connector M12; Connection type, IO-Link ports: Connector M12, 5-pin; Supply voltage Vs, module: DC 18 ... 30 V; Power consumption: Typ. 75 mA / max. 100 mA (at UL with DC 24 V), Typ. 25 mA + sensor current / max. 80 | IOLSHPB-P3104R01   | 6039728  |

## Recommended services

Additional services → [www.sick.com/LFV200](http://www.sick.com/LFV200)

|                                                                                                                                                                                                                                                                                                                                                           | Type                   | Part no.   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------|
| Function Block Factory                                                                                                                                                                                                                                                                                                                                    |                        |            |
| <ul style="list-style-type: none"> <li><b>Description:</b> The Function Block Factory supports common programmable logic controllers (PLCs) from various manufacturers, such as Siemens, Beckhoff, Rockwell Automation and B&amp;R. More information on the FBF can be found <a _blank"="" href="https://fbf.cloud.sick.com target=">here</a>.</li> </ul> | Function Block Factory | On request |

## 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)