



Level sensors  
TDR-sensor, LFT

LFT1800-01A1A10



**Model Name** > [LFT1800-01A1A10](#)  
**Part No.** > [1043609](#)



*Product may differ  
from illustration*

#### At a glance

- Time-of-flight measurement technology
- Up to 4 switching outputs, combination of analog and digital outputs possible
- Small deadband, ideal for small containers
- Simple, single-button teach
- Flexible probe length up to 2,000 mm
- No re-calibration necessary when fluid properties change
- Measurement independent of installation conditions and tank material
- Filter available for dirty and contaminated fluids

#### Your benefits

- High resolution, accuracy, and repeatability
- Reliable measurement independent of liquid type, installation condition and tank material due to TDR technology
- One device performs the functionality for switching and continuous applications, reducing the number of sensors required
- Reduced installation time and costs through high flexibility
- No re-calibration necessary, saving commissioning time
- A variety of available probe lengths meets the needs of many applications
- No moving parts reduces maintenance costs



#### Features

|                      |                    |
|----------------------|--------------------|
| Medium:              | Fluids             |
| Measurement:         | Switch, Continuous |
| Probe length:        | 1,800 mm           |
| Measuring range:     | 30 mm ... 1,790 mm |
| Process pressure:    | 1 bar              |
| Process temperature: | 0 °C ... 80 °C     |
| WHG approval:        | -                  |
| GOST approval:       | ✓                  |
| UL approval:         | -                  |

#### Performance

|                         |        |
|-------------------------|--------|
| Resolution:             | 1 mm   |
| Accuracy:               | ± 3 mm |
| Repeatability:          | < 2 mm |
| Dielectricity constant: | ≥ 1,8  |

Response time: 200 ms

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**Mechanical data**

|                     |                             |
|---------------------|-----------------------------|
| Inactive area:      | Each 10 mm                  |
| Housing material:   | PBT                         |
| Process connection: | G 3/4 A                     |
| Wetted parts:       | Stainless steel 1.4404/316L |

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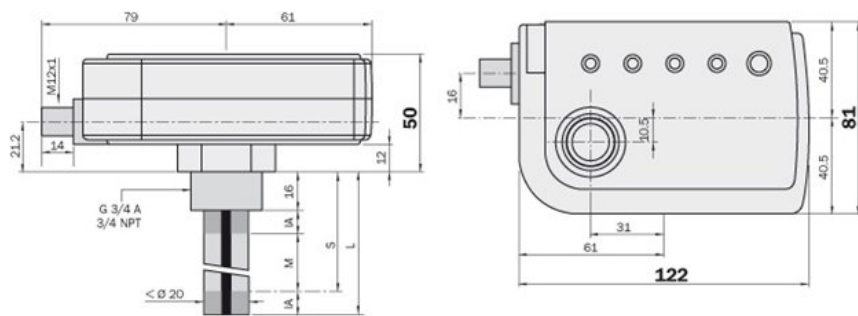
**Electrical data**

|                       |                                          |
|-----------------------|------------------------------------------|
| Enclosure rating:     | IP 67                                    |
| Supply voltage:       | 18 V DC ... 30 V DC                      |
| Ripple:               | $\leq 5$ Vpp                             |
| Power consumption:    | $\leq 90$ mA at 24 V without output load |
| VDE protection class: | III                                      |
| Initialization time:  | 4 s                                      |
| Output signal:        | 4 mA ... 20 mA1, PNP, NCC                |
| Output load:          | $< 500$ Ohm                              |
| Upper signal level:   | 20 mA ... 20.5 mA                        |
| Lower signal level:   | 3.8 mA ... 4 mA                          |
| Hysteresis:           | 3 mm                                     |
| Signal voltage HIGH:  | $V_s - 2$ V                              |
| Signal voltage LOW:   | $0\text{ V} \leq 1\text{ V}$             |
| Capacitive load:      | 100 nF                                   |
| Inductive load:       | 1 H                                      |
| Connection type:      | M12x1, 5-pin                             |

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**Ambient data**

|                                |                  |
|--------------------------------|------------------|
| Ambient operating temperature: | -10 °C ... 60 °C |
| Ambient storage temperature:   | -40 °C ... 80 °C |



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