



Level sensors  
TDR level sensor, LFT

LFT0400-01A1A50



**Model Name** > [LFT0400-01A1A50](#)  
**Part No.** > [1045910](#)



*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:	400 mm
Measuring range:	30 mm ... 390 mm
Process pressure:	≤ 1 bar
Process temperature:	0 °C ... 80 °C
WHG approval:	-
GOST approval:	✓
UL approval:	-

#### Performance

Resolution:	≤ 1 mm
Accuracy of sensor element:	± 3 mm
Repeatability:	2
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 316L/301, PBT, PTFE

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**Electrical data**

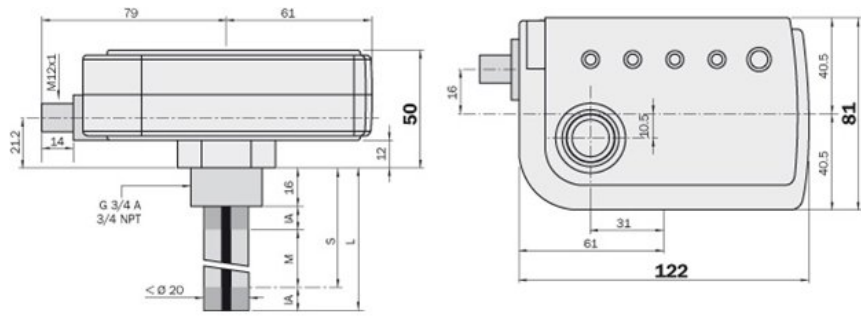
Temperature drift:  $\pm 0.05$  mm/K  
Enclosure rating: IP 67  
Supply voltage: 18 V DC ... 30 V DC  
Ripple:  $\leq 5$  Vpp  
Power consumption:  $\leq 90$  mA at 24 V without output load  
Protection class: III  
Initialization time:  $\leq 4$  s  
Output signal: 4 mA ... 20 mA, 1x PNP, normally closed, hysteresis adjustable  
Output load:  $< 500 \Omega$   
Upper signal level: 20 ... 20.5  
Lower signal level: 3.8 ... 4  
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:  $\leq 1$  H  
Connection type: M12x1, 5-pin

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**Ambient data**

Ambient operating temperature:  $-10 \text{ }^\circ\text{C} \dots 60 \text{ }^\circ\text{C}$   
Ambient storage temperature:  $-40 \text{ }^\circ\text{C} \dots 80 \text{ }^\circ\text{C}$

**Dimensional drawing**



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