

Level sensors  
LFP, TDR level sensor

LFP1800-G1AMB



- COMPOSANTS D'AUTOMATISME
- SYSTEMES D'AUTOMATISME
- CONSTITUANTS ELECTROTECHNIQUES
- MESURE ET CONTROLE
- SECURITE MACHINE

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**SICK**  
Sensor Intelligence.

**Model Name** > LFP1800-G1AMB  
**Part No.** > 1053657



Product may differ from illustration



**At a glance**

- Level monitoring in hygienic applications
- Manually retractable monoprobe up to 2,000 mm long with Ra 0.8 µm
- Process temperature up to 150 °C, process pressure up to 16 bar
- CIP/SIP resistant
- IP 67 and IP 69K enclosure rating
- Interchangeable hygienic process connections
- 3-in-1: combined display, analog output and binary output
- Analog output 4 mA ... 20 mA / 0 V ... 10 V, switchable, plus two binary outputs

**Your benefits**

- Robust design increases service life
- High flexibility due to retractable probe and interchangeable connection concept
- Cost savings due to multiple output signals: one system for both level detection and continuous level monitoring
- Time and cost savings due to low maintenance and quick commissioning
- No calibration or recalibration required for commissioning, thus saving time and costs



**Features**

Medium:	Fluids
Measurement:	switch, continuous
Probe length:	1,800 mm
Process pressure:	-1 bar ... 16 bar
Process temperature:	-20 °C ... 150 °C
EHEDG approval:	✓
GOST approval:	✓
RoHS certificate:	✓

**Performance**

Dielectricity constant:	≥ 5
Repeatability:	≤ 2 mm
Resolution:	< 2 mm
Accuracy of sensor element:	± 5 mm
Conductivity:	no limitation
Inactive area at process connector:	40 mm <sup>1)</sup>
Inactive area at probe end:	10 mm <sup>2)</sup>

1) 2) With water under reference conditions

### Mechanical data

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Housing material:	303
Process connection:	G 3/4 A
Wetted parts:	316L (Ra ≤ 0,8 µm), PEEK
Max.probe load:	6 Nm

### Electrical data

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Supply voltage:	12 V DC ... 30 V DC <sup>1)</sup>
Power consumption:	≤ 75 mA at 24 V without output load
Initialization time:	≤ 2 s
Connection type:	M12x1, 5-pin
Response time:	< 400 ms
Signal voltage HIGH:	Vs - 2 V
Signal voltage LOW:	≤ 2 V
Output current:	< 100 mA
Output load:	0 V ... 10 V > 750 Ohm at Uv ≥ 14 V, 4 mA ... 20 mA < 400 Ohm at Uv > 12 V, 4 mA ... 20 mA < 500 Ohm at Uv > 13,5 V
Upper signal level:	20 mA ... 20.5 mA
Lower signal level:	3.8 mA ... 4 mA
Capacitive load:	100 nF
Inductive load:	< 1 H
Enclosure rating:	IP 67: EN 60529, IP 69K: EN 40050
Temperature drift:	< 0.1 mm/K
Protection class:	III
EMC:	EN 61326-1:2006, 2004/108/EG
Interference resistance:	EN 61000-6-2:2005
Interference emission:	EN 61000-6-4:2007
Single shock:	EN 60068-2-27
Continuous shock:	EN 60068-2-29

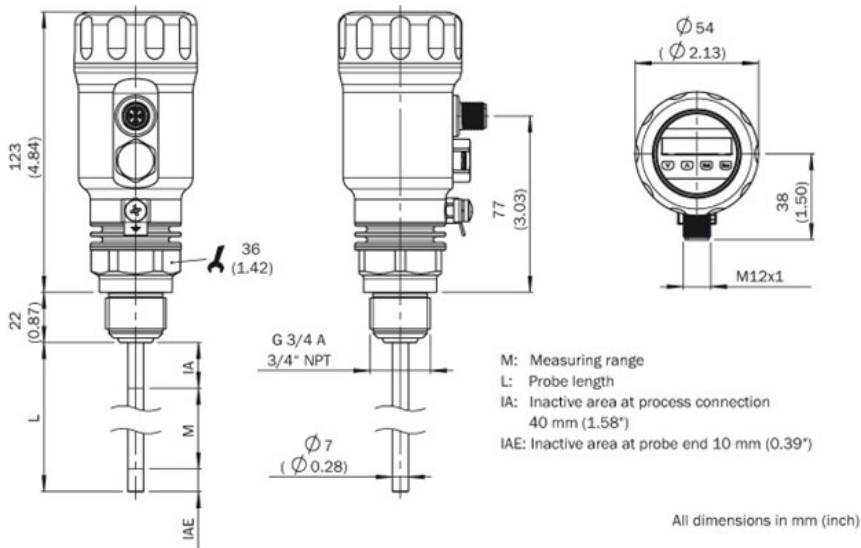
<sup>1)</sup> All connections are polarity protected. All outputs are overload and short-circuit protected.

### Ambient data

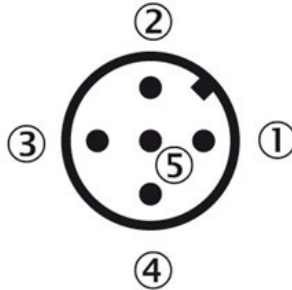
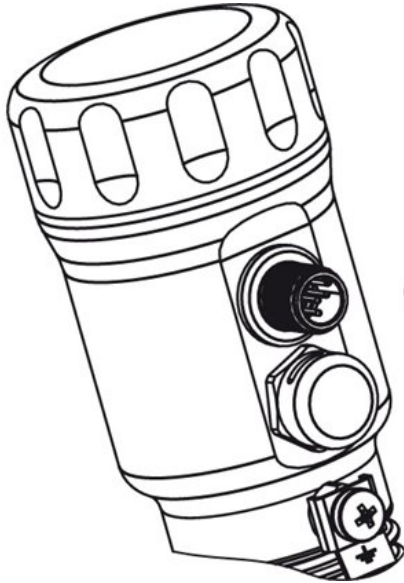
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Ambient temperature, operation:	-20 °C ... 60 °C
Ambient temperature, storage:	-40 °C ... 80 °C

## Dimensional drawing



## Connection type



- [1] L+: Supply voltage, brown
- [2] QA: Analog current-/voltage output, white
- [3] M: Ground, OUT- for current-/voltage output, blue
- [4] C/Q1: Switching output 1, PNP/IO-Link-communication, |
- [5] Q2: Switching output 2, PNP/NPN, grey

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