



# LXRC-1XXXFXXAAMAAX

LXRC

LEVEL SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

Type	part no.
LXRC-1XXXFXAAMAAX	6085687

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

### Detailed technical data

#### Features

<b>Medium</b>	Fluids, bulk solids
<b>Measurement</b>	Continuous, switch
<b>Probe type</b>	Thread with integrated horn antenna made from PEEK
<b>Frequency band</b>	W-band (within 75 ... 85 GHz)
<b>Measuring range</b>	0 m ... 15 m
<b>Angle of dispersion</b>	14° <sup>1)</sup>
<b>Process pressure</b>	-1 bar ... 16 bar
<b>Process temperature</b>	-40 °C ... +130 °C
<b>360° status indicator</b>	✓

<sup>1)</sup> Outside the specified aperture angle, the level of the radar signal energy is lowered by 50% (-3 dB).

#### Performance

<b>Accuracy of sensor element</b>	± 2 mm <sup>1) 2)</sup>
<b>Reproducibility</b>	≤ 1 mm
<b>Resolution</b>	< 1 mm
<b>Response time</b>	1,000 ms

<sup>1)</sup> At reference conditions.

<sup>2)</sup> If subjected to EMC interference, the measurement error can be larger.

#### Electronics

<b>Communication interface</b>	IO-Link
<b>Supply voltage</b>	12 V DC ... 35 V DC <sup>1)</sup>
<b>Initialization time</b>	≤ 5 s

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

<sup>2)</sup> UB = 35 V DC, output signal = 20 mA.

<b>Protection class</b>	III
<b>Connection type</b>	M12 round connector x 1, 4-pin
<b>Output signal</b>	2 x PNP/NPN/PNP/NPN + 4 mA ... 20 mA
<b>Power consumption</b>	≤ 3.5 W <sup>2)</sup>
<b>Inductive load</b>	≤ 0.5 H
<b>Capacitive load</b>	≤ 100 nF
<b>Enclosure rating</b>	IP66 IP67 IP69
<b>Lower signal level</b>	3.8 mA ... 4 mA
<b>Upper signal level</b>	20 mA ... 20.5 mA

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

<sup>2)</sup> UB = 35 V DC, output signal = 20 mA.

## Mechanics

<b>Wetted parts</b>	Stainless steel 1.4404 / 316L PEEK FKM
<b>Process connection</b>	G 3/4, PN16, DIN3852-A
<b>Housing material</b>	Stainless steel 1.4404 / 316L, PBT/PC
<b>Male connector material</b>	Plastic

## Ambient data

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

## Classifications

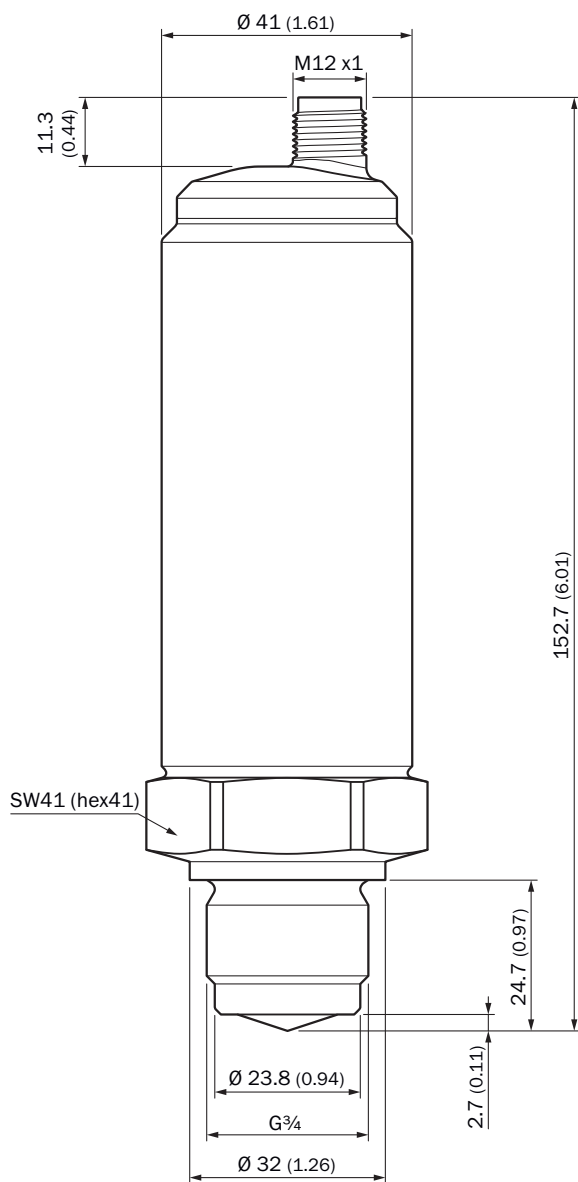
<b>ECLASS 5.0</b>	27200505
<b>ECLASS 5.1.4</b>	27200505
<b>ECLASS 6.0</b>	27200505
<b>ECLASS 6.2</b>	27200505
<b>ECLASS 7.0</b>	27200505
<b>ECLASS 8.0</b>	27200505
<b>ECLASS 8.1</b>	27200505
<b>ECLASS 9.0</b>	27200505
<b>ECLASS 10.0</b>	27270807
<b>ECLASS 11.0</b>	27270807
<b>ECLASS 12.0</b>	27274501
<b>ETIM 5.0</b>	EC001447
<b>ETIM 6.0</b>	EC001447
<b>ETIM 7.0</b>	EC001447
<b>ETIM 8.0</b>	EC001447
<b>UNSPSC 16.0901</b>	41111950

## Certificates

<b>EU declaration of conformity</b>	✓
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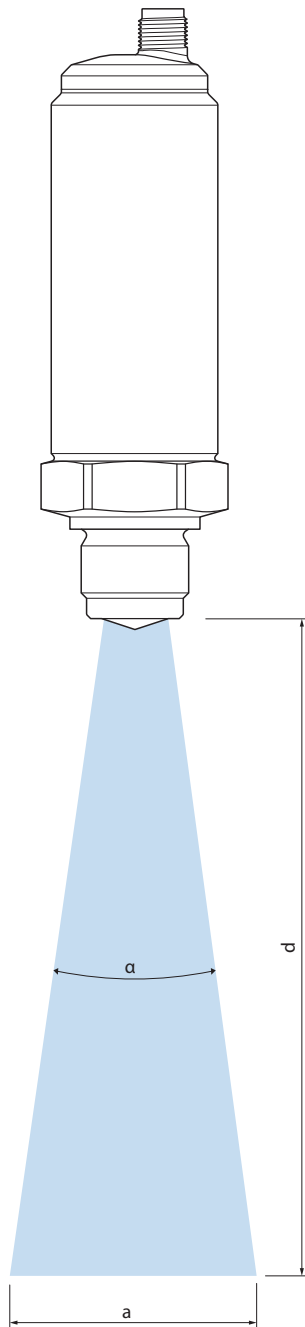
China RoHS	✓
cULus certificate	✓
FCC certificate	✓
IO-Link certificate	✓
Radio Approval certificate Australia	✓
Radio Approval certificate Canada	✓
Radio Approval certificate New Zealand	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

### Dimensional drawing



Dimensions in mm (inch)

Functional principle



Aperture angle (α) 14°

Distance to antenna (d)	Diameter signal cone (a)
0.5 m	0.11 m
1.0 m	0.23 m
1.5 m	0.36 m
2.0 m	0.48 m
2.5 m	0.60 m
3.0 m	0.72 m
3.5 m	0.85 m
4.0 m	0.97 m
4.5 m	1.09 m
5.0 m	1.22 m
5.5 m	1.34 m
6.0 m	1.46 m
6.5 m	1.58 m
7.0 m	1.71 m
7.5 m	1.83 m
8.0 m	1.95 m
8.5 m	2.08 m
9.0 m	2.20 m
9.5 m	2.32 m
10.0 m	2.44 m
10.5 m	2.57 m
11.0 m	2.69 m
11.5 m	2.81 m
12.0 m	2.93 m
12.5 m	3.06 m
13.0 m	3.18 m
13.5 m	3.30 m
14.0 m	3.43 m
14.5 m	3.55 m
15.0 m	3.67 m

## 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)