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PRODUCT OVERVIEW

LXRC-1

Level sensors

SICK Sensor Intelligence



LEVEL SENSORS

LXRC-1

Radar sensor with IO-Link – user-friendly, precise and reliable

The LXRC-1 free-space level sensor enables continuous level measurement of liquids and bulk materials in hygiene applications. The 80 GHz signal is especially focused and measures up to a distance of 15 m with no dead zone and with a consistently high performance – for a safe process supply. The LXRC-1 requires no calibration before use. Thanks to its compact design and non-contact measurement technology, it can be installed with little effort even in applications where the installation space is limited. Custom parameterization is possible via Bluetooth® and app. Thanks to IO-Link and optional Bluetooth®, the level sensor is ideal for modern production environments. The operational status is visible even at a large distance via a color indication on a 360-degree status indicator.

LXRC-1 AT A GLANCE

BENEFITS

- Continuous level readings for smooth processes
- Easy installation even in tight installation conditions thanks to compact design
- Flexible use in different tank sizes and designs—no dead zone over the entire measuring distance
- Plug-and-play: Commissioning without calibration
- Straightforward parameterization using PC, tablet, or smartphone via IO-Link or Bluetooth®
- Universal solution for almost all liquids and bulk goods, insensitive to dust, steam, and vacuum
- Simple diagnostics: Status information via 4–20 mA output, IO-Link, and Bluetooth® on mobile devices
- Maintenance-free operation thanks to non-contact measurement procedure

FEATURES

- Free-space radar sensor with 80 GHz and ± 2 mm accuracy
- Measuring range: 0 to 15 m
- Process pressure: –1 to 16 bar
- Temperature range: –40 to +130 °C
- Enclosure ratings: IP66, IP67, IP69
- IO-Link
- Optionally with Bluetooth® and 360° status LED

TECHNICAL DATA OVERVIEW

Measurement principle	Free-space radar
Detection principle	Non contact
Medium	Fluids Bulk solids
Measurement	Switch Continuous
Process connection	G ¾ ¾" NPT 1" NPT G 1
Process temperature	–40 °C ... +130 °C
Process pressure	–1 bar ... 16 bar
Connection type	M12 round connector x 1, 4-pin

TYPE CODE

Electrical safety
XX CE, RCM, UKCA, normal location (c-UL-us)

Food/pharmaceutical certificate
X without food/pharmaceutical certificate

Process connection
F Thread G 3/4 PN16, DIN3852-A / 316/316L
G Thread 3/4" NPT PN16, ASME B1.20.1 / 316/316L
J Thread G 1 PN16, DIN3852-A / 316/316L
K Thread 1" NPT PN16, ASME B1.20.1 / 316/316L

Additional hygiene adapters
XX without additional hygiene adapters

Material/seal/process temperature
AA Material PEEK, seal FKM, process temperature –40...+130°C
QB Material PTFE, seal FKM, process temperature –40...+130°C

Electrical connection/ enclosure rating
M M12x1 plastic / IP66/IP67/IP69
E M12x1 stainless steel / IP66/IP67/IP69

Display and control module/360° status indicator
X without display / without status indicator
A without display / with status indicator

Electronics
A Three-wire with IO-Link (2x transistor or 4... 20mA plus 1x transistor)

WPAN
X without WPAN
B with WPAN

LXRC -	1	XX	X		XX	H			A	

Not all variants of the type code can be combined!

ADVANTAGES



Precise measurement data and easy handling

The LXRC-1 measures the fill level using non-contact 80 GHz radar technology. This enables measurement without a dead zone directly at the sensor. With an accuracy of ± 2 mm over the entire measuring range of up to 15 m, the LXRC-1 radar sensor delivers accurate data. The highly focused signal ensures reliability. The measurement quality is not affected by difficult installation conditions or harsh process conditions such as condensation and deposit-forming media.



Quick installation
Thanks to a range of up to 15 m, the LXRC-1 is suitable for numerous applications. Commissioning is especially easy via IO-Link and Bluetooth®. Thanks to media-independent radar technology, no calibration at the measuring location is required either.



Maintenance-free
Since the LXRC-1 operates without contact, the device does not wear out due to aggressive and abrasive media. This results in a low maintenance requirement.



Level indicator
The 360-degree status LED uses different color and signal modes to display individually configured information thereby reporting the current operational status of the sensor.

⟶ Whether in large tanks, during filling or in a vacuum: the LXRC-1 level sensor is quickly installed and ensures trouble-free, continuous level measurement in mechanical engineering applications.



The right solution for many areas of application

From silo tanks to bottling plants—the LXRC-1 radar sensor is designed for universal application and is therefore suitable for numerous applications and industries. Levels of both bulk materials and liquids can be reliably measured under different ambient conditions. To enable smooth installation in the local plant, the LXRC-1 is equipped with the common 4–20 mA and IO-Link interfaces.



For demanding media
Thanks to non-contact radar technology, the fill level of aggressive, abrasive, highly viscous and highly deposit-forming media can be reliably detected.



For numerous environments
Whether in vacuum tanks or in vessels with pressures up to 16 bar, as well as in cold storage at temperatures down to –40 °C or at high temperatures up to 130 °C—the LXRC-1 is a reliable solution for many demanding environments.



For minimal storage requirements
The LXRC-1 can be used universally. The number of different level sensors in the system is significantly reduced thanks to the scanning range of up to 15 m. This eliminates the need to keep a variety of level sensors in stock.

→ The LXRC-1 offers high flexibility and is suitable as a universal solution for continuous level measurement and inventory monitoring in industrial applications.

Select the right product variant and accessories directly online. There you will also find example applications as well as downloads such as CAD dimensional models, operating instructions and software.
www.sick.com/LXRC-1

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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnership with our customers is more than just a promise: Together, we optimize productivity, elevate quality, protect health and safety, and sustain the future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions.

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