SICK.COM



DATA SHEET

RFH630-1102101

RFH6xx
RFID

SICK Sensor Intelligence



RFID

RFH630-1102101

ORDERING INFORMATION

Type	part no.
RFH630-1102101	1054746

Further device versions and accessories at www.sick.com/RFH6xx

DETAILED TECHNICAL DATA

FEATURES

Version	Mid Range
Technology	RFID
Product category	RFID read/write device with integrated antenna
Radio approval	Global
Frequency band	HF (13.56 MHz)
Carrier frequency	13.56 MHz
RFID standard	ISO/IEC 15693, ISO/IEC 18000-3 “Mode 1”
Connection type	Ethernet
Reading range	≤ 240 mm [1]
Antenna	Integrated
Connection of external antennas	1
Typical access times	UID read (64 bits/8 bytes): 18 ms Read 1 block (32 bit/4 Byte): 13 ms Write 1 block (32 bit/4 Byte): 16 ms Read 28 blocks (896 bit/112 Byte): 64 ms Write 28 blocks (896 bit/112 Byte): 442 ms
Air interface data transmission rate	26 kbit/s (default)

[1] With RFID ISO card transponder in plane parallel alignment to read/write device antenna; depending on dimensions and quality of transponder.

MECHANICS/ELECTRONICS

Connection type	1, 1 x M12, 17-pin male connector, A-coded, M12, 4-pin female connector, D-coded
Supply voltage	10 V DC ... 30 V DC
Power consumption	Typ. 8 W
Housing material	Aluminum die cast Plastic (PPS)
Housing color	Blue, black
Enclosure rating	IP67

[1] Swivel connector is 15 mm longer.

Protection class	III
Weight	710 g
Dimensions (L x W x H)	147 mm x 88 mm x 39 mm [1]
MTBF	> 100 years

[1] Swivel connector is 15 mm longer.

INTERFACES

Ethernet	✓, TCP/IP
Function	Data interface (read result output), Service interface
Data transmission rate	10/100 MBit/s
PROFINET	✓
Function	PROFINET Single Port, PROFINET Dual Port (optional via external connection module CDF600-2), Data interface (read result output)
Data transmission rate	10/100 MBit/s
EtherNet/IP™	✓
Function	Data interface (read result output)
Data transmission rate	10/100 MBit/s
EtherCAT®	✓
Type of fieldbus integration	Optional over external fieldbus module CDF600
Function	Data interface (read result output)
Serial	✓, RS-232, RS-422, RS-485
Remark	RS-422/RS-485 only via 4-wire
Function	Data interface (read result output), Service interface
Data transmission rate	0.3 kBaud ... 115.2 kBaud, AUX: 57.6 kBaud
CAN	✓
Remark	CSN (SICK CAN Sensor Network)
Function	Data interface (read result output)
Data transmission rate	20 kbit/s ... 1,000 kbit/s
CANopen	✓
Function	Data interface (read result output)
Data transmission rate	20 kbit/s ... 1,000 kbit/s
PROFIBUS DP	✓
Type of fieldbus integration	Optional over external fieldbus module CDF600-2
Function	Data interface (read result output)
Digital inputs	2 (physical, 2 additional logical inputs via optional CMC600 parameter memory in CDB620 / CDM420)
Digital outputs	2 (physical, 2 additional logical outputs via optional CMC600 parameter memory in CDB620 / CDM420)
Optical indicators	6 LEDs, multi-color (device status) 1 RGB LED (Process feedback)
Acoustic indicators	1 beeper (Feedback)
Configuration software	SOPAS ET [1]
Memory card	microSD memory card (parameter cloning)

[1] Another alternative is to generate your own configuration tools based on the SICK command language CoLa (e.g. in your own software or on PLC function blocks).

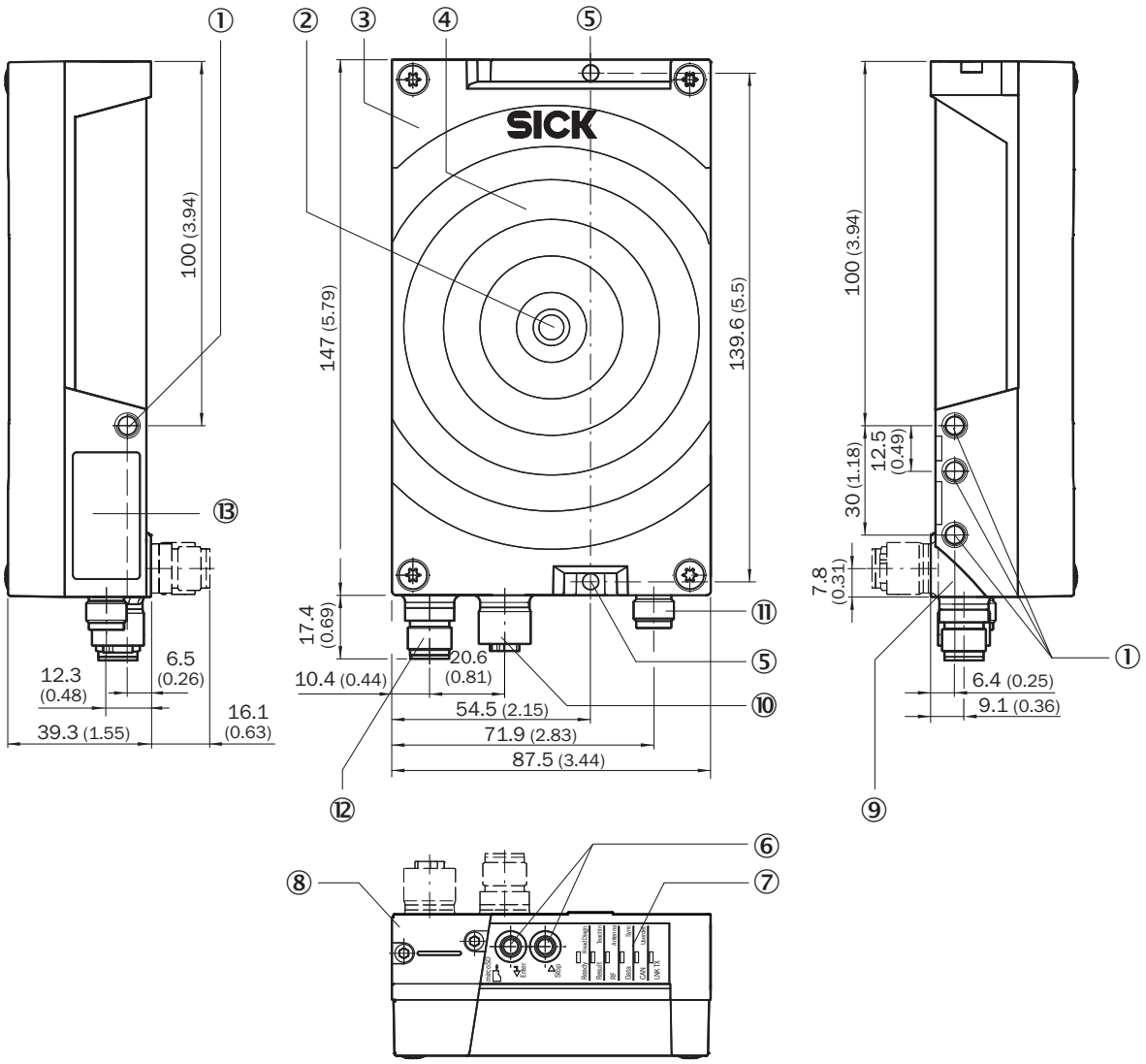
AMBIENT DATA

Electromagnetic compatibility (EMC)	EN 301489-3
Vibration resistance	EN 60068-2-64:2008-02
Shock resistance	EN 60068-2-27:2009-05
Ambient operating temperature	–20 °C ... +50 °C
Storage temperature	–25 °C ... +70 °C
Relative humidity	95 %, Non-condensing

CERTIFICATES

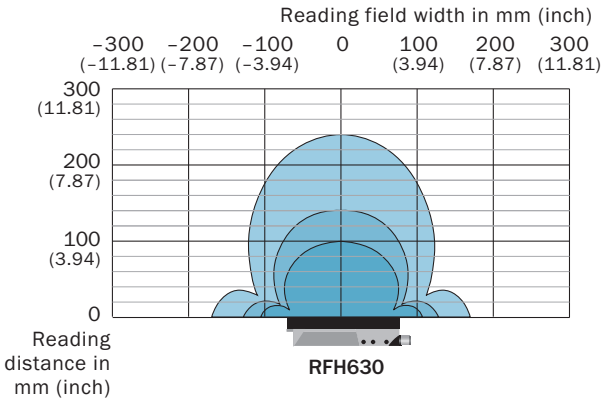
EU declaration of conformity	✓
UK declaration of conformity	✓
China RoHS	✓
Profinet certificate	✓
Ethernet/IP certificate	✓
BIS registration	✓
Radio Approval certificate India	✓
Radio Approval certificate Singapore	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

DIMENSIONAL DRAWING

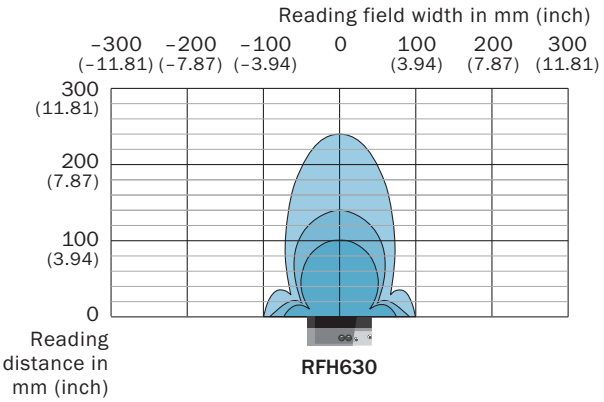


Dimensions in mm (inch)
① 4 x M6 blind tapped holes, 6.5 mm deep for mounting the device
② 1 x RGB LED, multi-colored (process feedback)
③ Position of the beeper under the antenna cover
④ cover with integrated antenna
⑤ 2 x mounting hole ø 4.5 mm, for alternative mounting of the device
⑥ Function button (2 x)
⑦ 6 x RGB LED, multi-colored (status indicators)
⑧ Slot for microSD memory card
⑨ swivel connector unit
⑩ “Ethernet” connection, 4-pin M12 female connector, D-coded
⑪ Connection for external antenna (female connector, TNC reverse)
⑫ “Power/Serial Data/CAN/I/O” connection, 17-pin M12 male connector, A-coded
⑬ type label

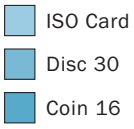
READING FIELD DIAGRAM



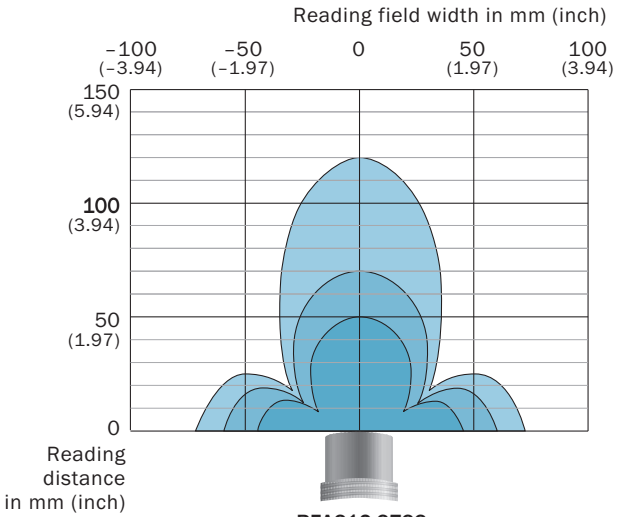
RFH630



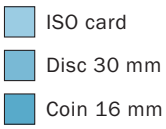
RFH630



READING FIELD DIAGRAM RFH630 ETHERNET WITH EXTERNAL ANTENNA



RFA312-3733

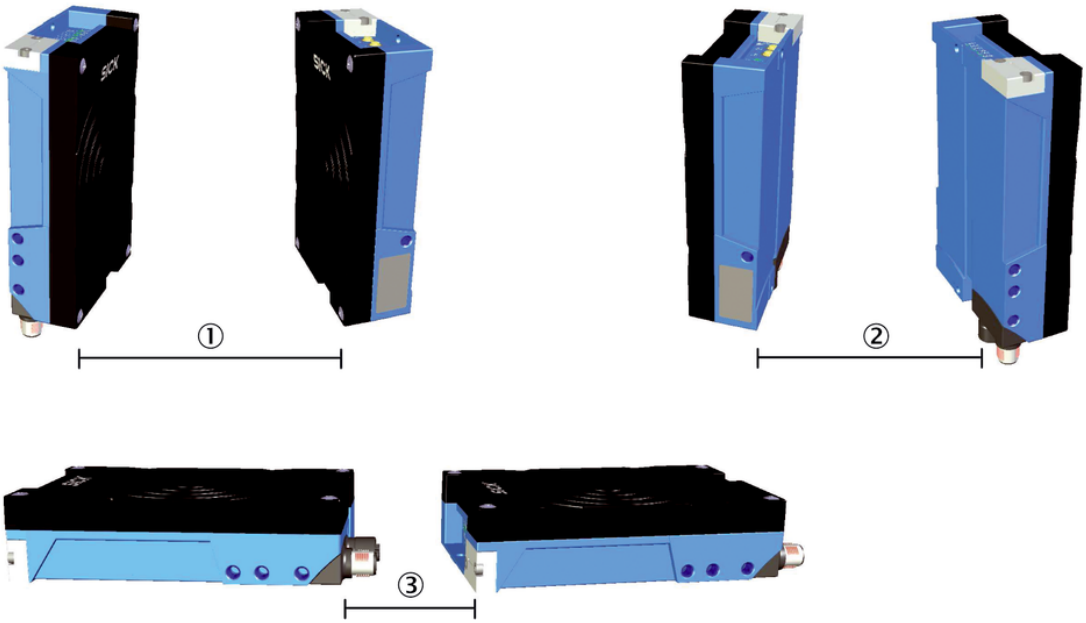


ASSEMBLY NOTE





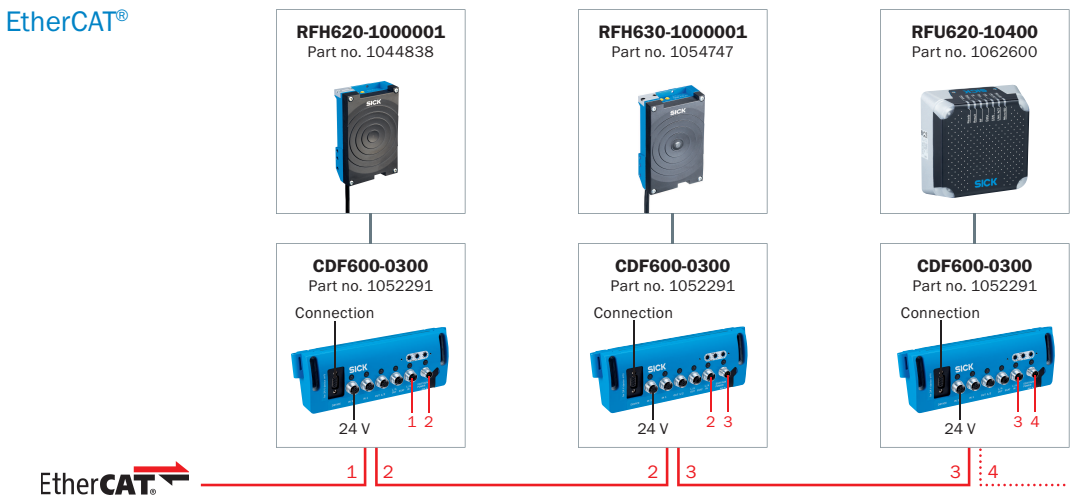
ASSEMBLY NOTE



Distances required to prevent mutual interference with mounting of two devices.

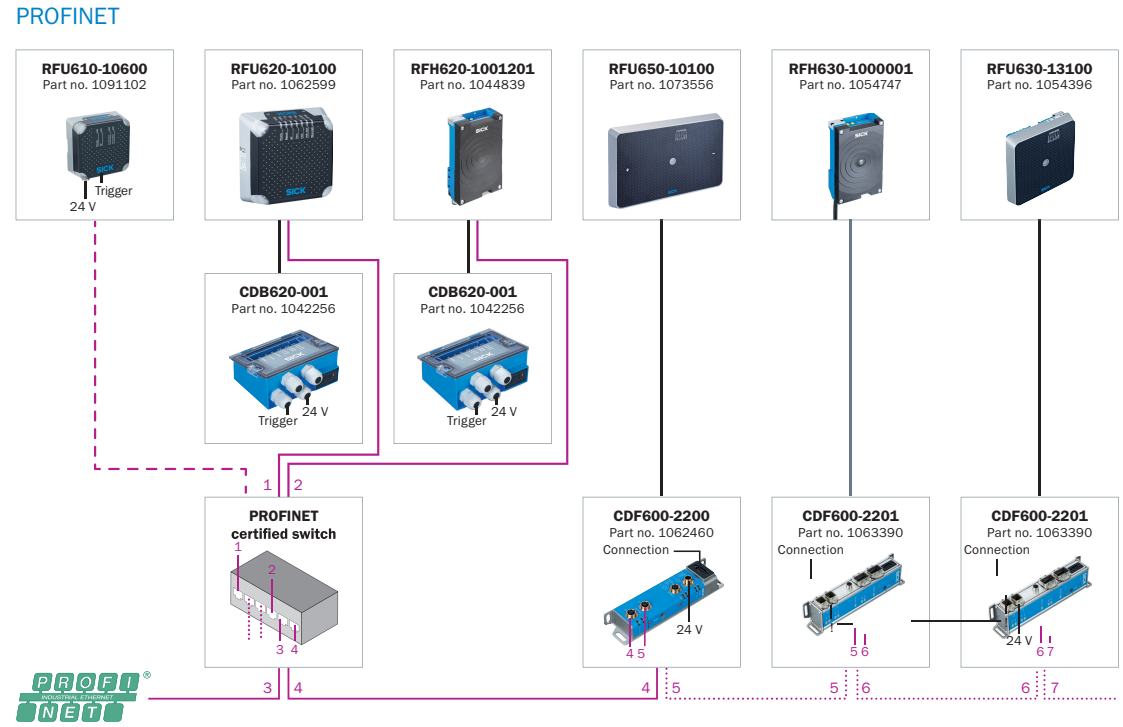
Product type	1	2	3
RFH620 Short Range	340 mm	140 mm	150 mm
RFH630 Mid Range	1,700 mm	1,200 mm	1,300 mm

CONNECTION DIAGRAM ETHERCAT®



Connecting cable (already present on device)
EtherCAT® cable, 2 m (Part no. 2106159)

CONNECTION DIAGRAM PROFINET IO/RT



Connecting cable (already present on device)
Connection cable, 2 m (Part no. 6061702)
PROFINET cable, 2 m (Part no. 2106182)
PROFINET cable, 2 m (Part no. 2106258)
PROFINET cable, ready to assemble AIDA plug connectors

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/1054746

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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 partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable 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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