



# RFH620-1001201

RFH6xx

RFID

**SICK**  
Sensor Intelligence.



### Ordering information

Type	part no.
RFH620-1001201	1044839

Other models and accessories → [www.sick.com/RFH6xx](http://www.sick.com/RFH6xx)



### Detailed technical data

#### Features

<b>Version</b>	Short Range
<b>Product category</b>	RFID read/write device with integrated antenna
<b>Radio approval</b>	Global
<b>Frequency band</b>	HF (13.56 MHz)
<b>Carrier frequency</b>	13.56 MHz
<b>RFID standard</b>	ISO/IEC 15693, ISO/IEC 18000-3 "Mode 1"
<b>Connection type</b>	Ethernet
<b>Reading range</b>	≤ 150 mm <sup>1)</sup>
<b>Antenna</b>	Integrated
<b>Typical access times</b>	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
<b>Air interface data transmission rate</b>	26 kbit/s (default)

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

#### Mechanics/electronics

<b>Connection type</b>	1, 1 x M12, 12-pin male connector, A-coded, M12, 4-pin female connector, D-coded
<b>Supply voltage</b>	10 V DC ... 30 V DC
<b>Power consumption</b>	Typ. 5 W
<b>Housing material</b>	Aluminum die cast Plastic (PPS)

<sup>1)</sup> Swivel connector is 15 mm longer.

<b>Housing color</b>	Blue, black
<b>Enclosure rating</b>	IP67
<b>Protection class</b>	III
<b>Weight</b>	450 g
<b>Dimensions (L x W x H)</b>	147 mm x 88 mm x 39 mm <sup>1)</sup>
<b>MTBF</b>	> 100 years

<sup>1)</sup> Swivel connector is 15 mm longer.

## Interfaces

<b>Ethernet</b>	✓ , TCP/IP
Function	Data interface (read result output), Service interface
Data transmission rate	10/100 MBit/s
<b>PROFINET</b>	✓
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
<b>EtherNet/IP™</b>	✓
Function	Data interface (read result output)
Data transmission rate	10/100 MBit/s
<b>EtherCAT®</b>	✓
Type of fieldbus integration	Optional over external fieldbus module CDF600
Function	Data interface (read result output)
<b>Serial</b>	✓ , 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
<b>CAN</b>	✓
Remark	CSN (SICK CAN Sensor Network)
Function	Data interface (read result output)
Data transmission rate	20 kbit/s ... 1,000 kbit/s
<b>CANopen</b>	✓
Function	Data interface (read result output)
Data transmission rate	20 kbit/s ... 1,000 kbit/s
<b>PROFIBUS DP</b>	✓
Type of fieldbus integration	Optional over external fieldbus module CDF600-2
Function	Data interface (read result output)
<b>Digital inputs</b>	1 (physical, 2 additional logical inputs via optional CMC600 parameter memory in CD-B620 / CDM420)
<b>Digital outputs</b>	2 additional logical outputs via optional CMC600 parameter memory in CDB620 / CDM420
<b>Optical indicators</b>	6 LEDs, multi-color (device status)
<b>Acoustic indicators</b>	1 beeper (Feedback)
<b>Configuration software</b>	SOPAS ET <sup>1)</sup>

<sup>1)</sup> 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).

<b>Memory card</b>	microSD memory card (parameter cloning)
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<sup>1)</sup> 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

<b>Electromagnetic compatibility (EMC)</b>	EN 301489-3
<b>Vibration resistance</b>	EN 60068-2-64:2008-02
<b>Shock resistance</b>	EN 60068-2-27:2009-05
<b>Ambient operating temperature</b>	-20 °C ... +60 °C
<b>Storage temperature</b>	-25 °C ... +70 °C
<b>Permissible relative humidity</b>	95 %, Non-condensing

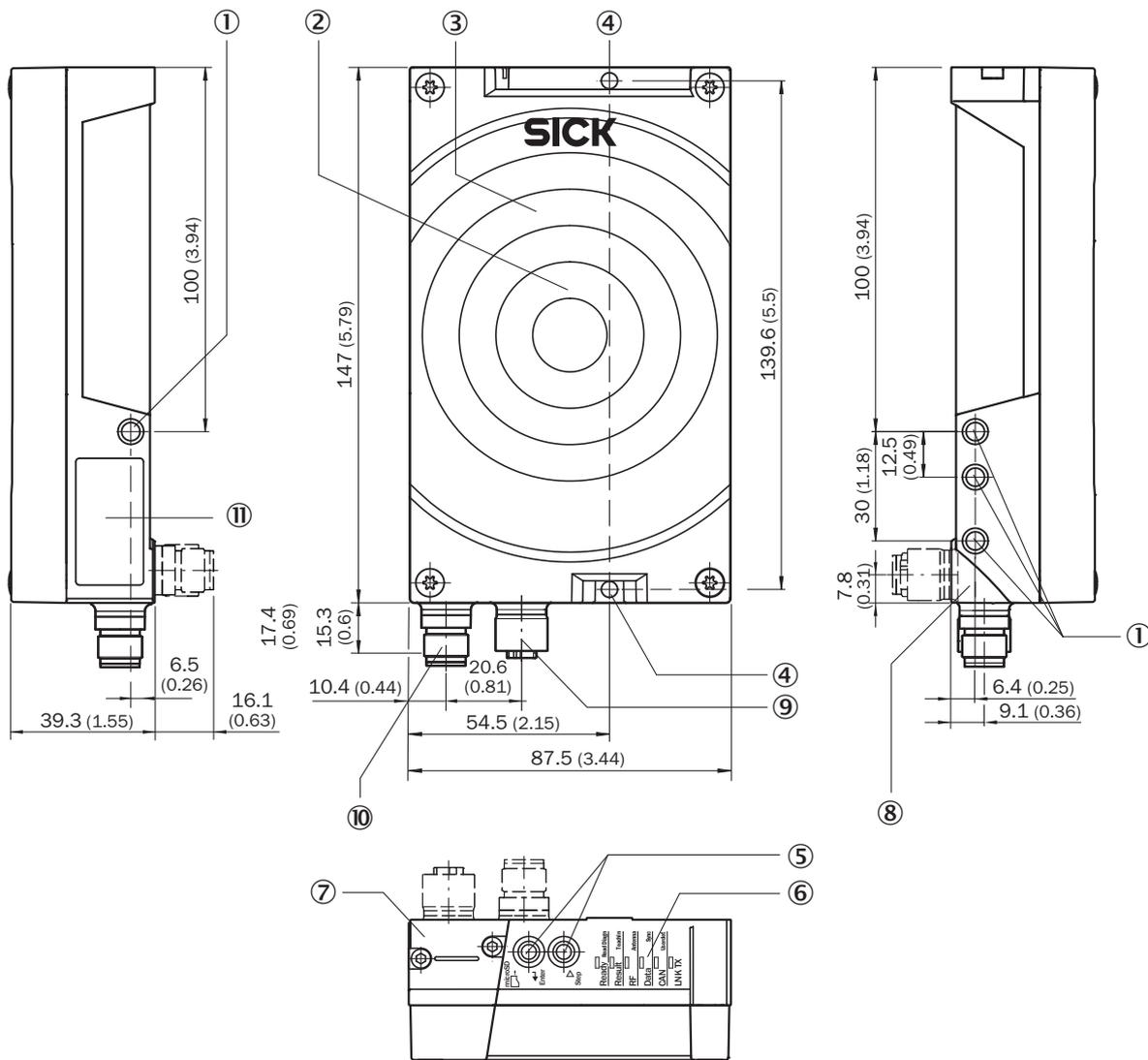
## Certificates

<b>EU declaration of conformity</b>	✓
<b>UK declaration of conformity</b>	✓
<b>China RoHS</b>	✓
<b>FCC certificate</b>	✓
<b>Profinet certificate</b>	✓
<b>Ethernet/IP certificate</b>	✓
<b>BIS registration</b>	✓
<b>Radio Approval certificate India</b>	✓
<b>Information according to Art. 3 of Data Act (Regulation EU 2023/2854)</b>	✓
<b>4Dpro</b>	✓

## Classifications

<b>ECLASS 5.0</b>	27280401
<b>ECLASS 5.1.4</b>	27280401
<b>ECLASS 6.0</b>	27280401
<b>ECLASS 6.2</b>	27280401
<b>ECLASS 7.0</b>	27280401
<b>ECLASS 8.0</b>	27280401
<b>ECLASS 8.1</b>	27280401
<b>ECLASS 9.0</b>	27280401
<b>ECLASS 10.0</b>	27280401
<b>ECLASS 11.0</b>	27280401
<b>ECLASS 12.0</b>	27280401
<b>ETIM 6.0</b>	EC002998
<b>ETIM 7.0</b>	EC002998
<b>ETIM 8.0</b>	EC002998
<b>UNSPSC 16.0901</b>	52161523

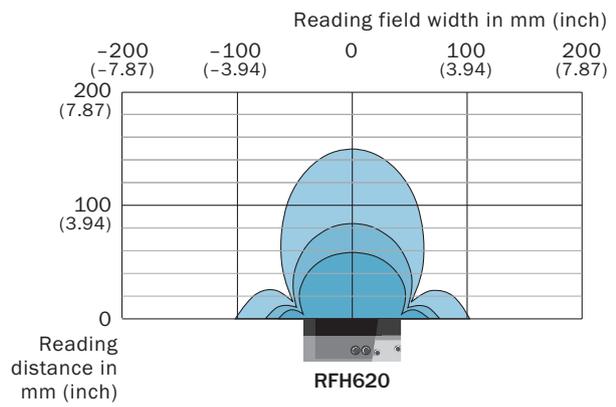
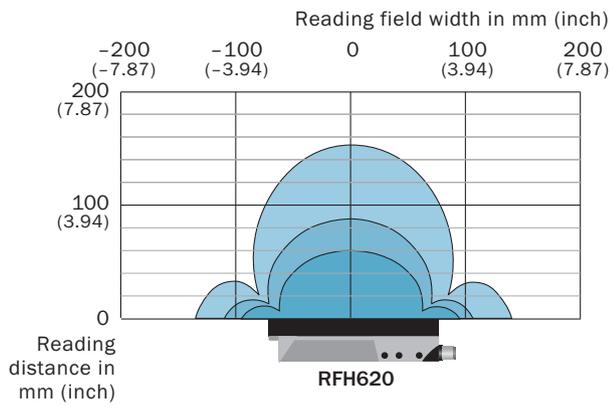
## Dimensional drawing



Dimensions in mm (inch)

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

### Reading field diagram

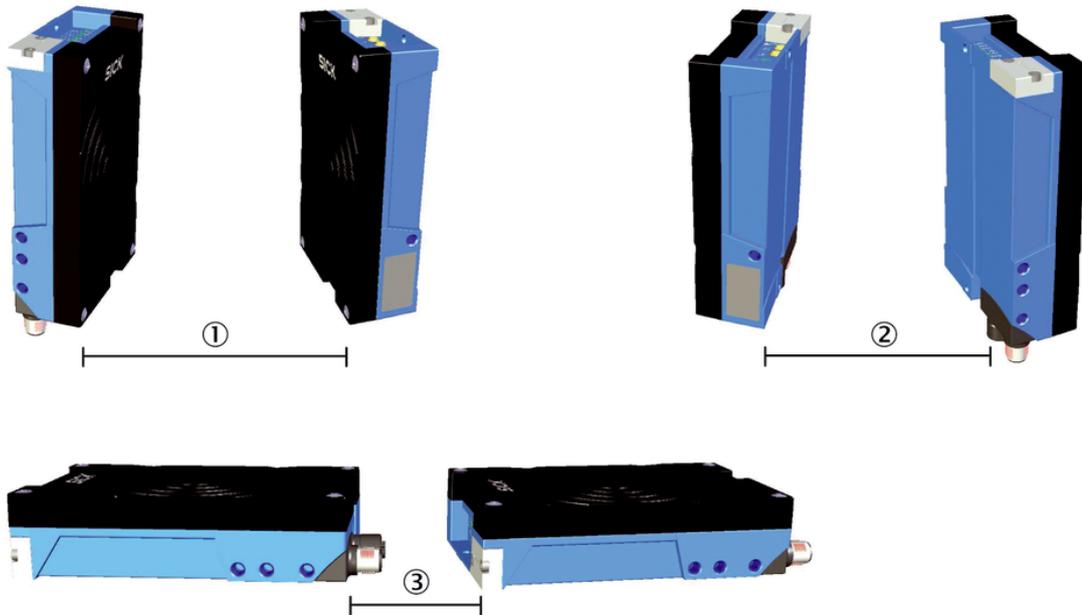


- ISO Card
- Disc 30
- Coin 16

### 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<sup>®</sup>

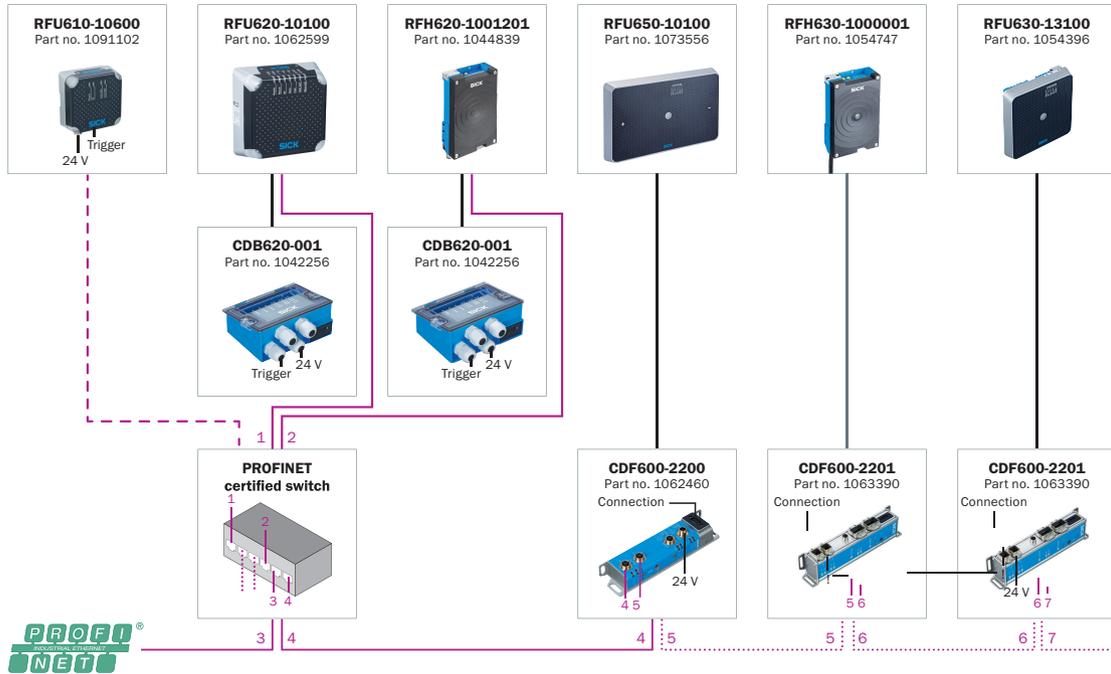
EtherCAT<sup>®</sup>



— Connecting cable (already present on device)  
 — EtherCAT<sup>®</sup> cable, 2 m (Part no. 2106159)

## Connection diagram PROFINET IO/RT

### PROFINET



- 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

## Recommended accessories

Other models and accessories → [www.sick.com/RFH6xx](http://www.sick.com/RFH6xx)

	Brief description	Type	part no.
connectors and cables			
	<ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Male connector, M12, 4-pin, straight, D-coded</li> <li>• <b>Connection type head B:</b> Male connector, RJ45, 4-pin, straight</li> <li>• <b>Signal type:</b> Ethernet, PROFINET</li> <li>• <b>Cable:</b> 2 m, 4-wire, PUR, halogen-free</li> <li>• <b>Description:</b> Ethernet, shielded, PROFINET</li> <li>• <b>Application:</b> Drag chain operation, Zones with oils and lubricants</li> </ul>	YM2D24-020P-N1MRJA4	2106182

	Brief description	Type	part no.
Junction boxes			
		CDB620-001	1042256
Mounting systems			
	<ul style="list-style-type: none"> <li>• <b>Description:</b> Mounting bracket</li> <li>• <b>Items supplied:</b> Mounting hardware included</li> </ul>	Mounting bracket	2048551
RFID transponders			
	<ul style="list-style-type: none"> <li>• <b>Memory capacity (EPC / user memory):</b> 896 Bit (28 x 4 Byte) (User Memory)</li> <li>• <b>Dimensions (L x W x H):</b> 49 mm x 81 mm x 0.42 mm</li> </ul>	HF Transponder, Paper label	6087791

## 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)