



RFH620-1001201

RFH6xx

RFID

SICK
Sensor Intelligence.



Ordering information

Type	part no.
RFH620-1001201	1044839

Other models and accessories → www.sick.com/RFH6xx



Detailed technical data

Features

Version	Short Range
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	≤ 150 mm ¹⁾
Antenna	Integrated
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, 12-pin male connector, A-coded, M12, 4-pin female connector, D-coded
Supply voltage	10 V DC ... 30 V DC
Power consumption	Typ. 5 W
Housing material	Aluminum die cast Plastic (PPS)

¹⁾ Swivel connector is 15 mm longer.

Housing color	Blue, black
Enclosure rating	IP67
Protection class	III
Weight	450 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		1 (physical, 2 additional logical inputs via optional CMC600 parameter memory in CD-B620 / CDM420)
Digital outputs		2 additional logical outputs via optional CMC600 parameter memory in CDB620 / CDM420
Optical indicators		6 LEDs, multi-color (device status)
Acoustic indicators		1 beeper (Feedback)
Configuration software		SOPAS ET ¹⁾

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).

Memory card	microSD memory card (parameter cloning)
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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 ... +60 °C
Storage temperature	-25 °C ... +70 °C
Permissible relative humidity	95 %, Non-condensing

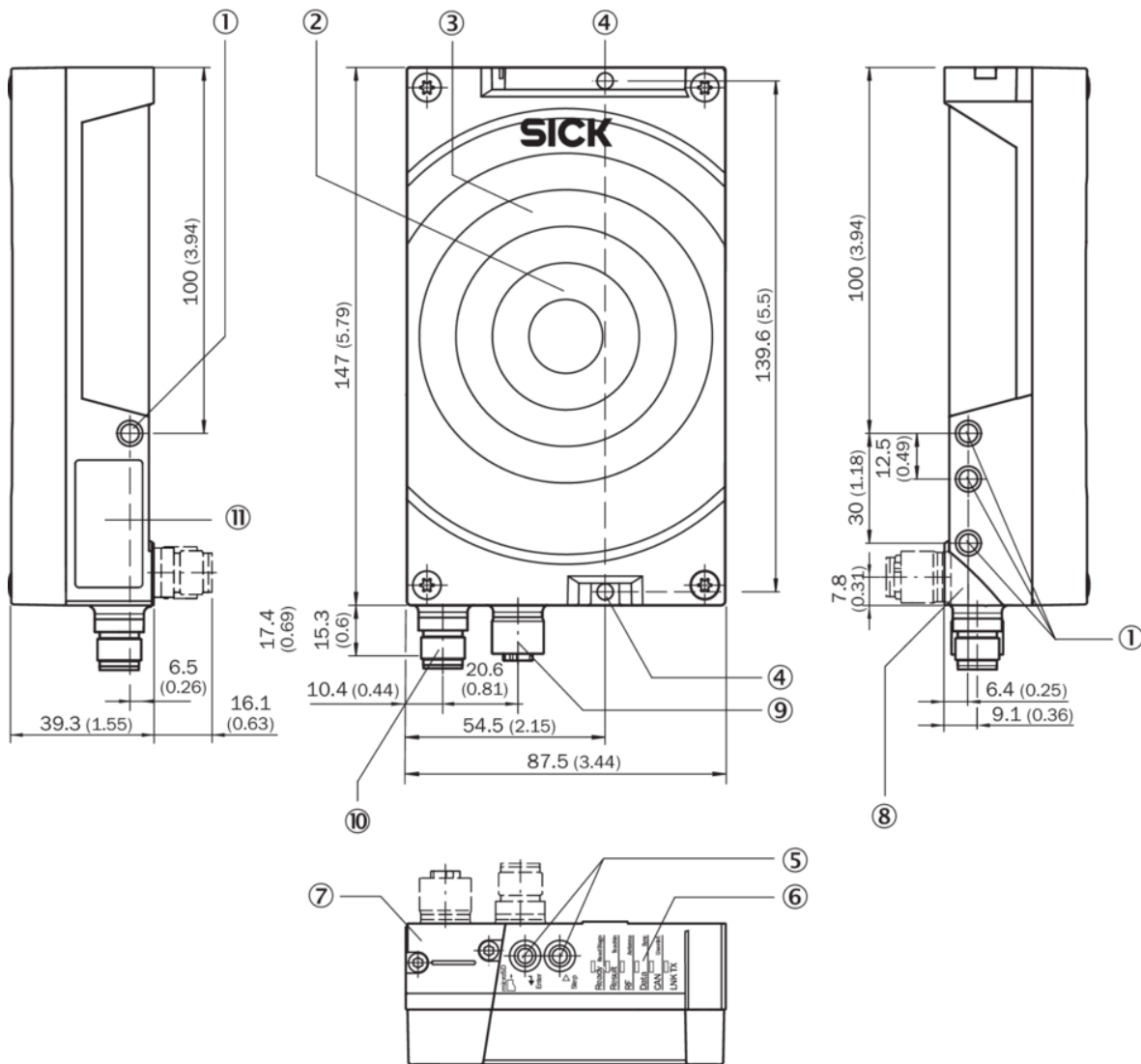
Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
China RoHS	✓
FCC certificate	✓
Profinet certificate	✓
Ethernet/IP certificate	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓
4Dpro	✓

Classifications

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

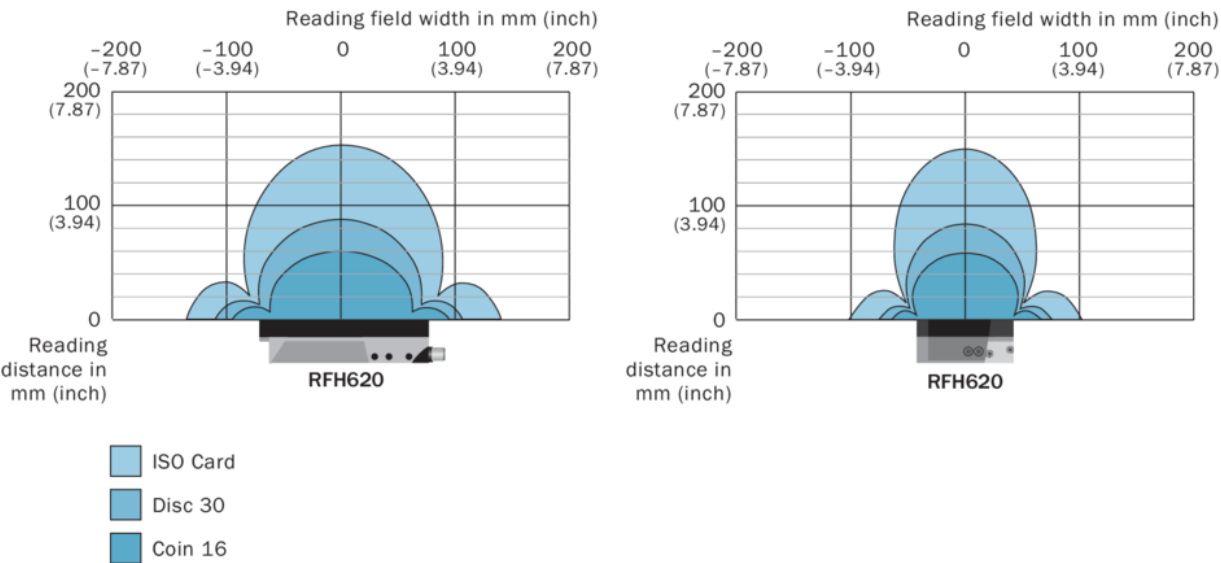
Dimensional drawing



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

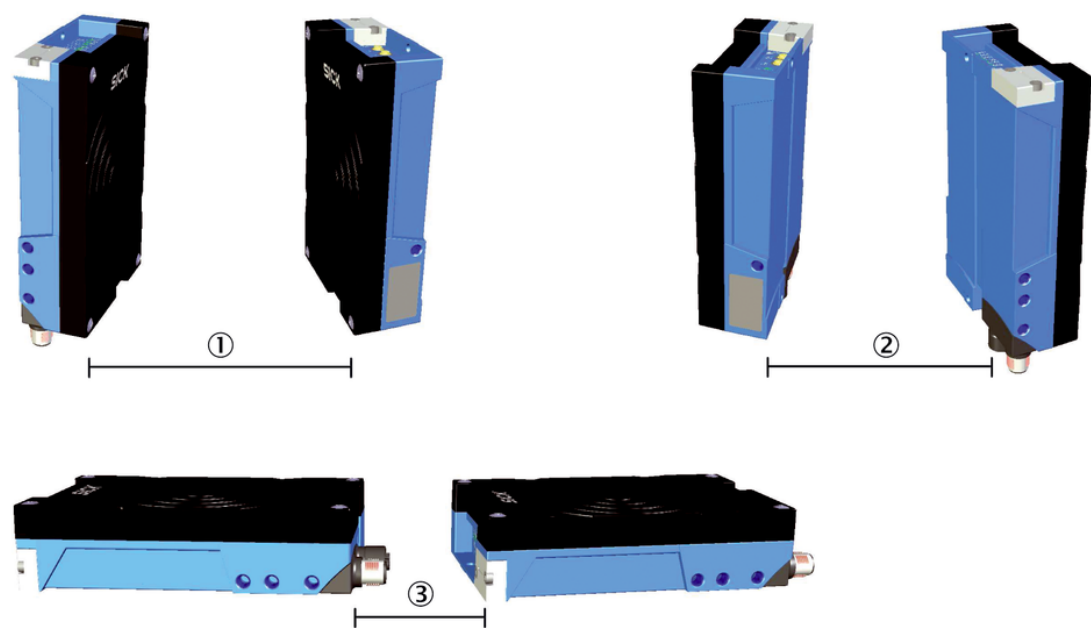
Reading field diagram



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

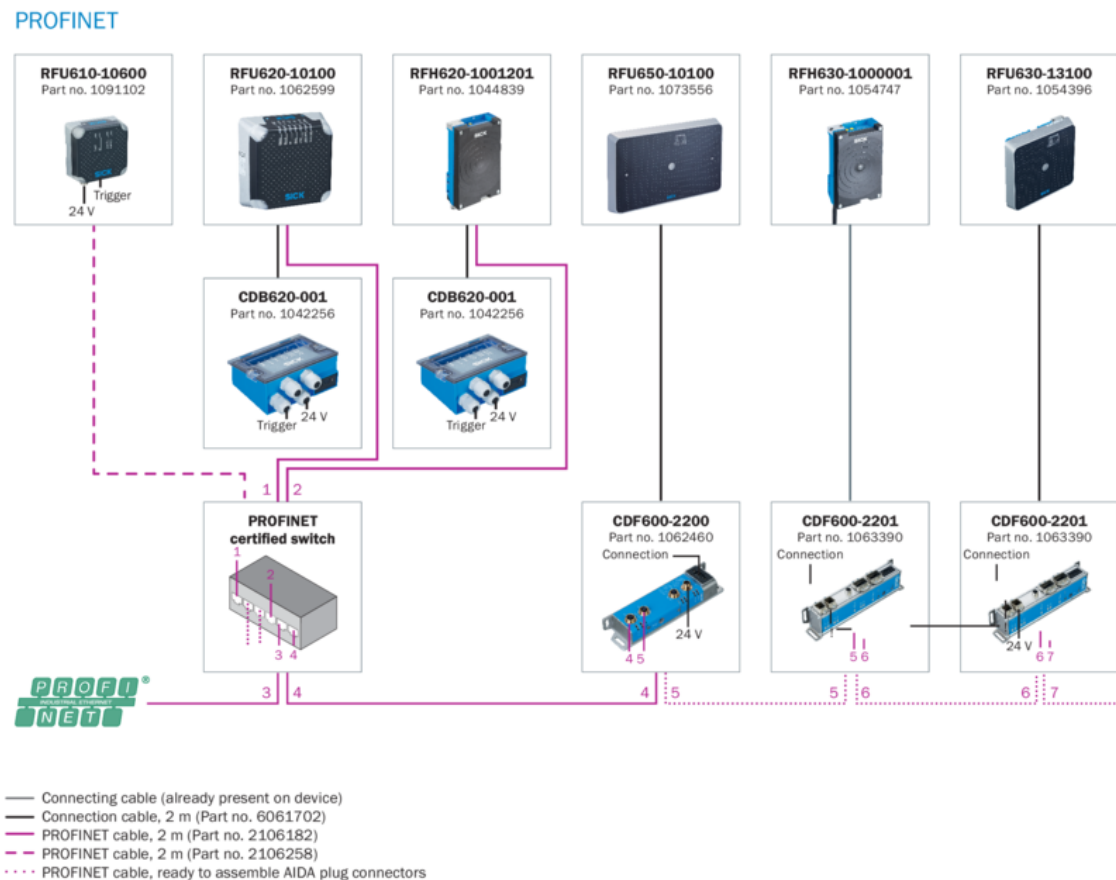
Connection diagram EtherCAT[®]

EtherCAT[®]



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

Connection diagram PROFINET IO/RT



Recommended accessories

Other models and accessories → www.sick.com/RFH6xx

	Brief description	Type	part no.
connectors and cables			
	• Connection type head A: Male connector, M12, 4-pin, straight, D-coded • Connection type head B: Male connector, RJ45, 4-pin, straight • Signal type: Ethernet, PROFINET • Cable: 2 m, 4-wire, PUR, halogen-free • Description: Ethernet, shielded, PROFINET • Application: Drag chain operation, Zones with oils and lubricants	YM2D24-020P-N1MRJA4	2106182

	Brief description	Type	part no.
Junction boxes			
		CDB620-001	1042256
Mounting systems			
	• Description: Mounting bracket • Items supplied: Mounting hardware included	Mounting bracket	2048551
RFID transponders			
	• Memory capacity (EPC / user memory): 896 Bit (28 x 4 Byte) (User Memory) • Dimensions (L x W x H): 49 mm x 81 mm x 0.42 mm	HF Transponder, Paper label	6087791

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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.”

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