SICK.COM



DATA SHEET

RFU620-10104

RFU62x
RFID

SICK Sensor Intelligence



RFID

RFU620-10104

ORDERING INFORMATION

Type	part no.
RFU620-10104	1069677

Further device versions and accessories at www.sick.com/RFU62x

DETAILED TECHNICAL DATA

FEATURES

Version	Mid Range
Technology	RFID
Product category	RFID read/write device with integrated antenna
Radio approval	Brazilian (ANATEL Resolution No. 506)
Frequency band	UHF (860 MHz ... 960 MHz)
Carrier frequency	902 MHz ... 907.5 MHz 915 MHz ... 928 MHz
Output power	0.32 W (EIRP, 25 dBm)
RFID standard	EPCglobal UHF Class 1 Generation 2, ISO/IEC 18000-6 C, RAIN
Modulation	PR-ASK
Connection type	Ethernet
Aperture angle	100°
Heating	Yes
Reading range	≤ 2 m [1]
Antenna	Integrated
Transmitting power	Adjustable
Polarization	Circular
Axial ratio	Typ. 3 dB
Front-to-back ratio	> 5 dB
Further functions	Diagnosis, updatable firmware, freely programmable data output format, Heartbeat, triggering, SICK AppSpace functionalities can be enabled with the SD card accessory SDK6U-P00100 (for firmware ≥ 2.0.0)

[1] Depending on transponder used and ambient conditions.

MECHANICS/ELECTRONICS

Connection type	1 x M12, 17-pin male connector, A-coded 1 x M12, 4-pin female connector, D-coded 1 x USB, 5-pin micro-B socket

[1] With heating 20 V DC ... 30 V DC.

Supply voltage	10 V DC ... 30 V DC [1]
Power consumption	Typ. 8 W, with heating typ. 16 W
Housing material	Aluminum die cast Plastic (PPS)
Enclosure rating	IP67
Protection class	III
Weight	780 g
Dimensions (L x W x H)	137 mm x 131 mm x 56 mm
MTBF	> 100 years

[1] With heating 20 V DC ... 30 V DC.

INTERFACES

Ethernet		✓ , TCP/IP, OPC UA
	Remark	Companion Spec V1.0 from firmware 2.20
	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
REST API		
	Remark	From Firmware version 2.52
	Function	Data interface (read result output), service interface
	Data transmission rate	10/100 MBit/s
Serial		✓ , RS-232, RS-422
	Remark	RS-422 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)
PROFIBUS DP		✓
	Type of fieldbus integration	Optional over external fieldbus module CDF600-2
	Function	Data interface (read result output)
CANopen		✓
	Function	Data interface (read result output)
EtherCAT®		✓
	Type of fieldbus integration	Optional over external fieldbus module
	Function	Data interface (read result output)
USB		✓
	Remark	USB 2.0
	Function	Service interface
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		7 LEDs, multi-color (device status) 4 RGB LED (Process feedback)
Operator interfaces		Web server
Configuration software		SOPAS ET [1]
Programming interface		Application-specific programming using the SICK AppStudio development environment
Memory card		microSD memory card (parameter cloning, data storage)

[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).

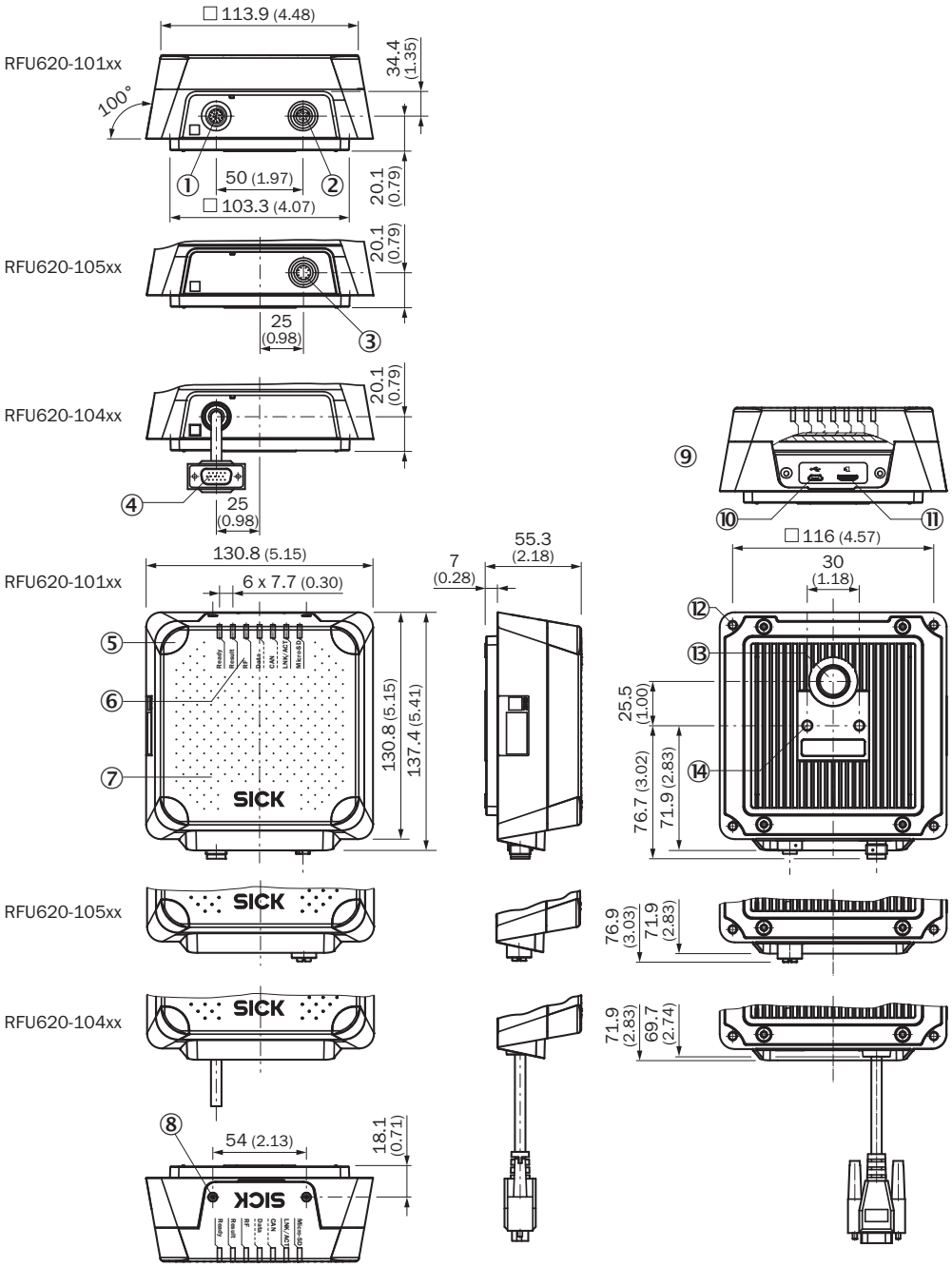
AMBIENT DATA

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	–40 °C ... +50 °C
Storage temperature	–40 °C ... +70 °C
Relative humidity	90 %, Non-condensing

CERTIFICATES

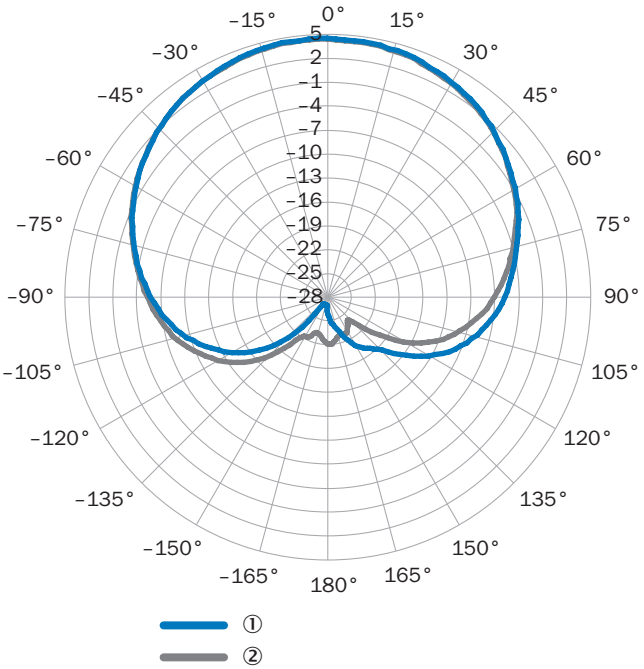
China RoHS	✓
Profinet certificate	✓
RAIN RFID	✓

DIMENSIONAL DRAWING RFU62X



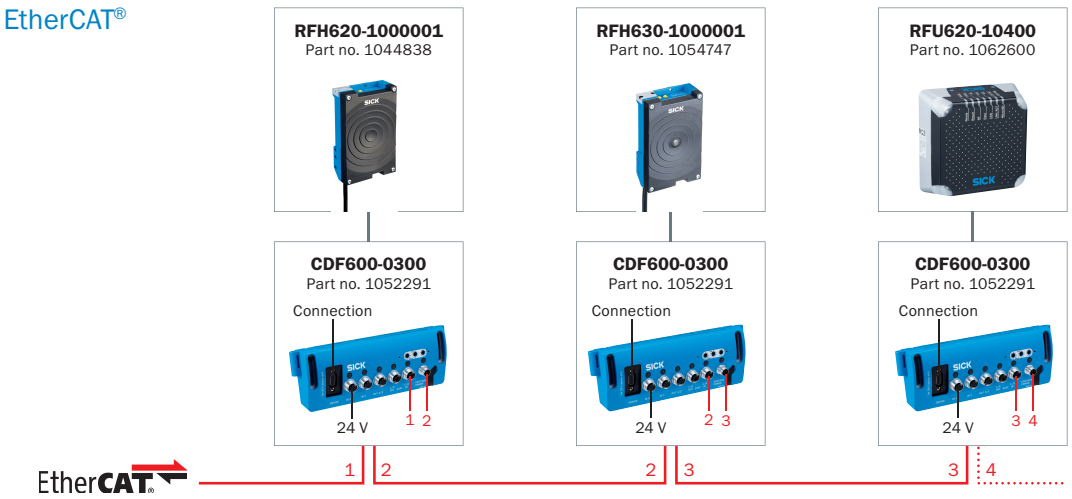
Dimensions in mm (inch)
① “Power/AUX/CAN/I/O” connection, 17-pin M12 male connector, A-coded
② “Ethernet” connection, 4-pin M12 female connector, D-coded
③ “Ethernet” connection, 8-pin M12 female connector, X-coded
④ “Power/HOST/AUX/CAN/I/O” connection, 15-pin D-Sub HD male connector, cable 0,9 m
⑤ 4 x LED, multi-colored (process feedback)
⑥ 7 x LED for status display
⑦ cover with integrated antenna
⑧ screw (Torx T8), captive (2 x), for side cover
⑨ side cover opened
⑩ USB socket, Micro B type
⑪ Slot for microSD memory card
⑫ blind hole thread M5, 9 mm deep (4 x), for alternatively mounting
⑬ pressure compensation valve (venitlation element)
⑭ M6 blind tapped holes, 7 mm deep (2 x), for mounting

RADIATION PATTERN



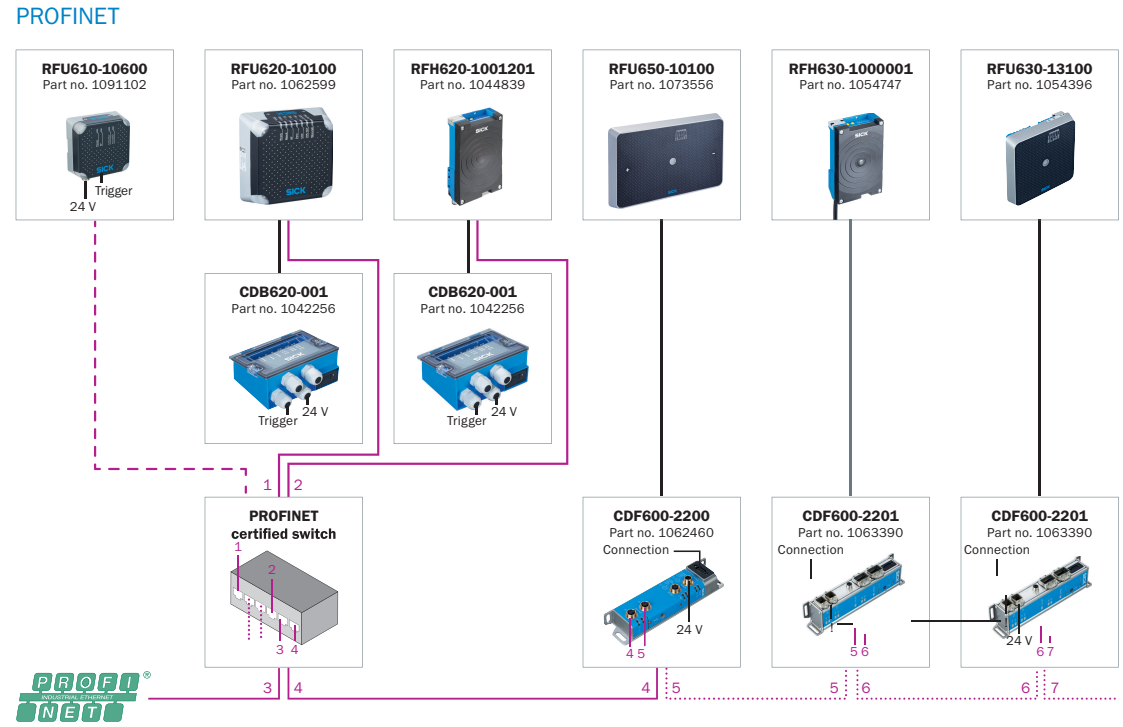
measured antenna gain in dBic at 868.5 MHz, RHCP (right-hand circularly polarized)
① Horizontal plane (azimuth)
② vertical plane (elevation)

CONNECTION DIAGRAM ETHERCAT®



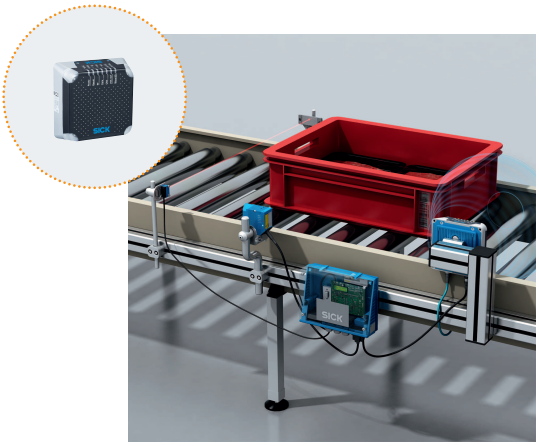
Connecting cable (already present on device)
EtherCAT® cable, 2 m (Part no. 2106159)

CONNECTION DIAGRAM PROFINET IO/RT

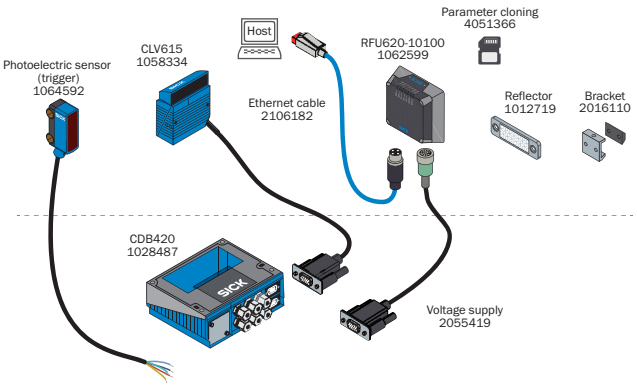


Connecting cable (already present on device)
Connection cable, 2 m (Part no. 6061702)
PROFINET cable, 2 m (Part no. 2106182)
PROFINET cable, 2 m (Part no. 2106258)
PROFINET cable, ready to assemble AIDA plug connectors

SYSTEM CONSTRUCTION



RFU62x



data combination of barcode and RFID

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/1069677

SICK AG
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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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