RFU620-10401

RFU62x

RFID

SICK
Sensor Intelligence.

RFU620-10401 | RFU62x

RFID

Ordering information

Type	part no.
RFU620-10401	1062603

Other models and accessories ➜ www.sick.com/RFU62x

Detailed technical data

Features

Version	Mid Range
Product category	RFID read/write device with integrated antenna
Radio approval	USA (FCC Part 15.247) Canada (RSS-210) México (NOM-121)
Frequency band	UHF (860 MHz ... 960 MHz)
Carrier frequency	902.75 MHz ... 927.25 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	Cable
Aperture angle	100°
Heating	No
Reading range	≤ 2 m [1]
Antenna	Integrated
Transmitting power	Adjustable
Polarization	Circular
Axial ratio	Typ. 3 dB
Front-to-back ratio	> 5 dB

[1] Depending on transponder used and ambient conditions.

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, 1 x cable, 15-pin D-Sub HD male connector, USB, 5-pin micro-B socket
Supply voltage	10 V DC … 30 V DC
Power consumption	Typ. 8 W, standby 3 W
Housing material	Aluminum die cast Plastic (PPS)
Enclosure rating	IP65
Protection class	III
Weight	780 g
Dimensions (L x W x H)	137 mm x 131 mm x 56 mm
MTBF	> 100 years

Interfaces

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)
USB	✓
Remark	USB 2.0
Function	Service interface
PROFINET	✓
Type of fieldbus integration	Optional over external fieldbus module CDF600-2
Function	PROFINET Dual Port, 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)
Digital inputs	2 (physical, 2 additional logical inputs via optional CMC600 parameter memory in CD-B620 / CDM420)
Digital outputs	2 (physical, 2 additional logical outputs via optional CMC600 parameter memory in CD-B620 / CDM420)
Optical indicators	7 LEDs, multi-color (device status)

[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).

	4 RGB LED (Process feedback)
Configuration software	SOPAS ET [1]
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	–25 °C ... +50 °C
Storage temperature	–40 °C ... +70 °C
Relative humidity	90 %, Non-condensing

Certificates

China RoHS	✓
cULus certificate	✓
Profinet certificate	✓
Radio Approval certificate	✓
Radio Approval certificate Mexico	✓
4Dpro	✓
RAIN RFID	✓

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 5.0	EC002998
ETIM 6.0	EC002998
ETIM 7.0	EC002998
ETIM 8.0	EC002998
UNSPSC 16.0901	52161523

dimensional drawing RFU62x
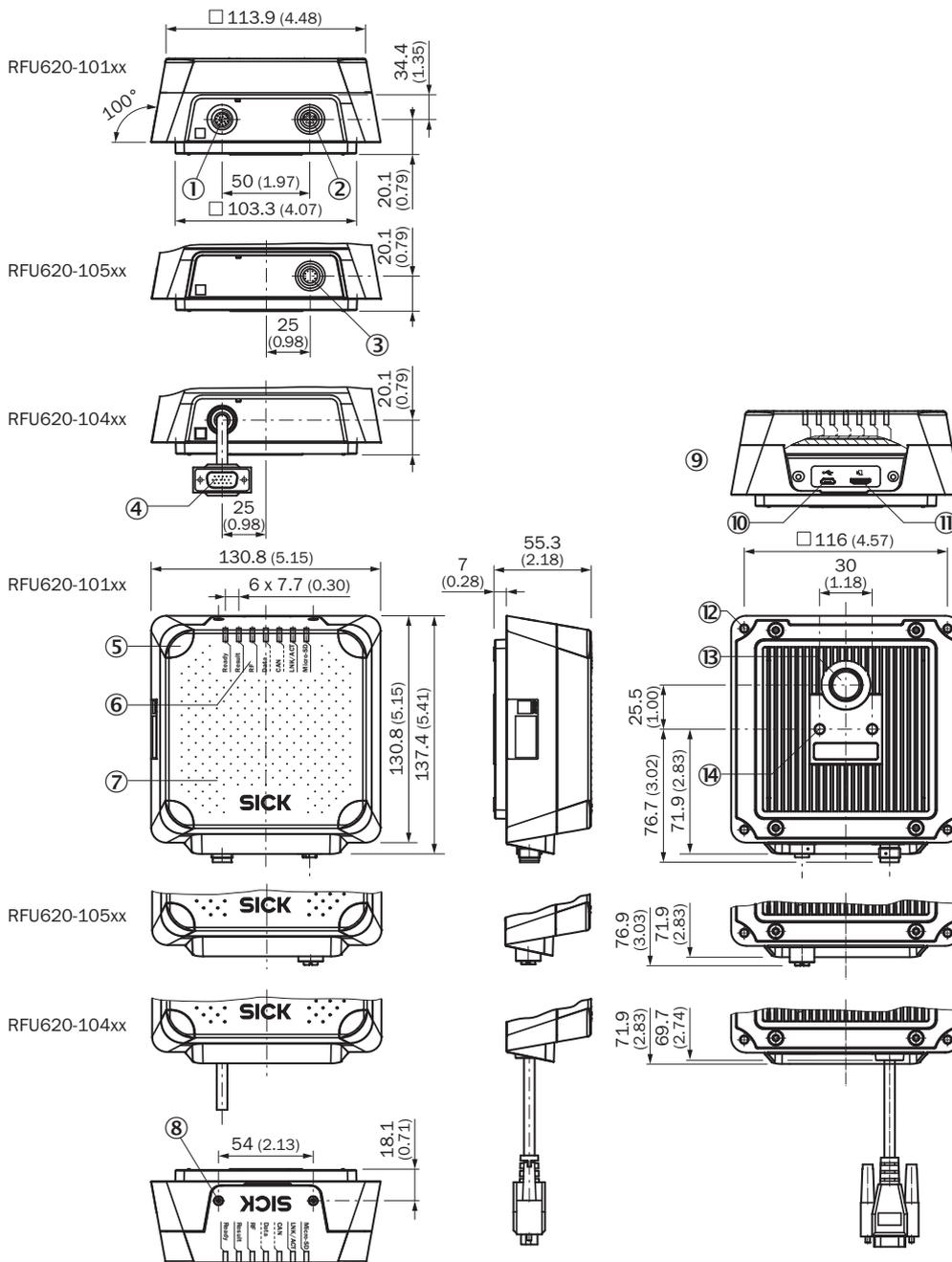
Dimensions in mm (inch)

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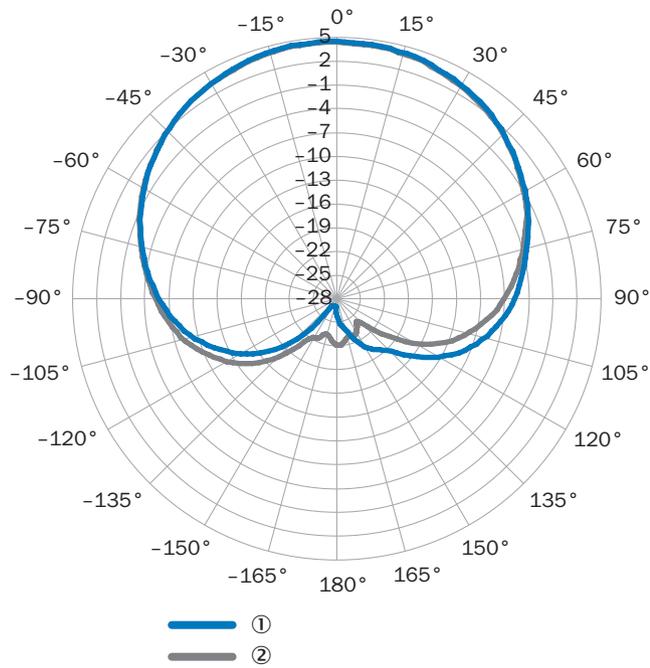
measured antenna gain in dBic at 868.5 MHz, RHCP (right-hand circularly polarized)
① Horizontal plane (azimuth)
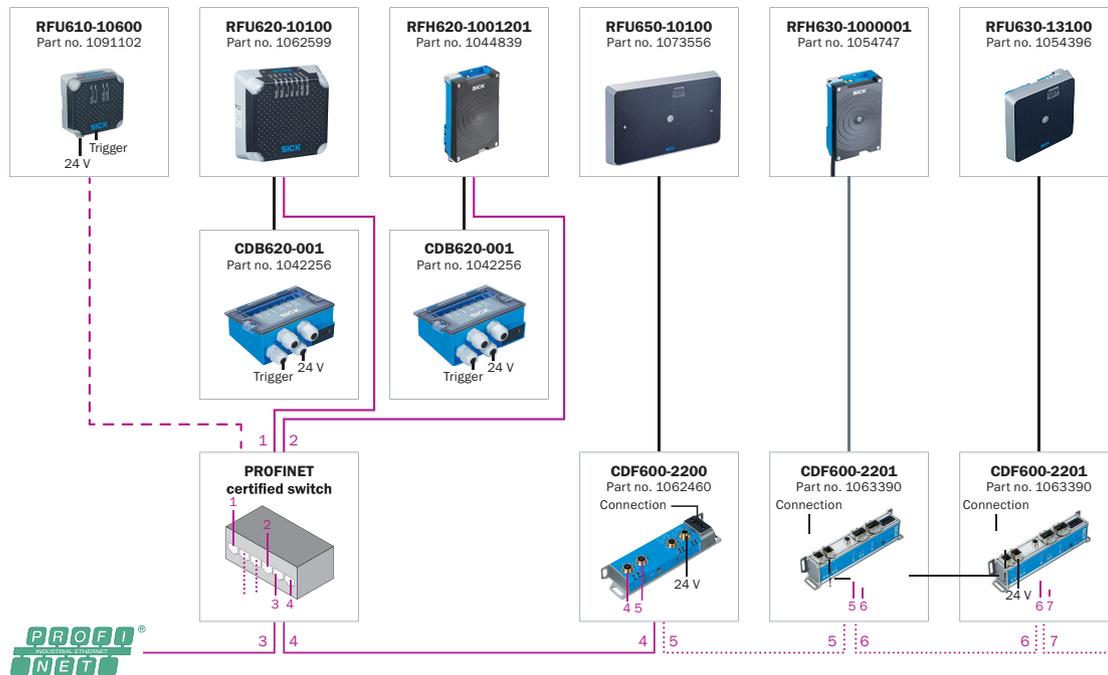② vertical plane (elevation)

Connection diagram EtherCAT®

EtherCAT®

RFH620-1000001	RFH630-1000001	RFU620-10400
Part no. 1044838	Part no. 1054747	Part no. 1062600

CDF600-0300	CDF600-0300	CDF600-0300
Part no. 1052291	Part no. 1052291	Part no. 1052291
Connection	Connection	Connection
24 V 1 2	24 V 2 3	24 V 3 4

EtherCAT®   1 | 2   2 | 3   3 | 4

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

Connection diagram PROFINET IO/RT

PROFINET

RFU610-10600	RFU620-10100	RFH620-1001201	RFU650-10100	RFH630-1000001	RFU630-13100
Part no. 1091102	Part no. 1062599	Part no. 1044839	Part no. 1073556	Part no. 1054747	Part no. 1054396

Trigger
24 V

CDB620-001	CDB620-001
Part no. 1042256	Part no. 1042256

24 V
Trigger

24 V
Trigger

1 | 2

PROFINET certified switch

1
2
3 4

CDF600-2200	CDF600-2201	CDF600-2201
Part no. 1062460	Part no. 1063390	Part no. 1063390
Connection	Connection	Connection

24 V

4 5

1
5 6

24 V
6 7

3 | 4
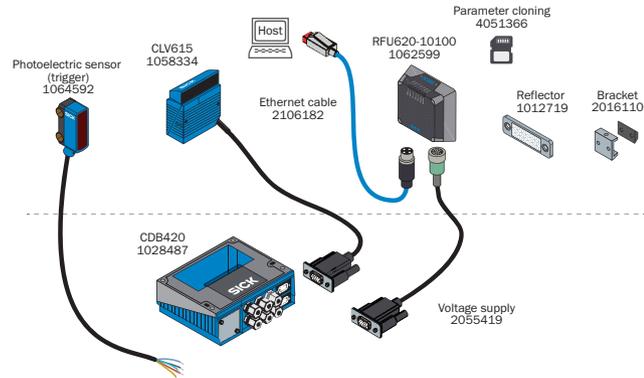
4 | 5

5 | 6

6 | 7

PROFINET
INDUSTRIAL ETHERNET

- —— 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

Photoelectric sensor
(trigger)
1064592

CLV615
1058334

Host

RFU620-10100
1062599

Parameter cloning
4051366

Ethernet cable
2106182

Reflector
1012719

Bracket
2016110

CDB420
1028487

Voltage supply
2055419

data combination of barcode and RFID

Recommended accessories

Other models and accessories ➜ www.sick.com/RFU62x

		Brief description	Type	part no.
connectors and cables				
		• **Description:** USB 2.0, unshielded • **Connection type head A:** Male connector, Micro-B, 4-pin, straight • **Connection type head B:** Male connector, USB-A, 4-pin, straight • **Signal type:** USB 2.0 • **Cable:** 2 m, 4-wire	YMUSA4-020VG4MUIA4	6036106
Storage media				
		• **Description:** microSD memory card with 1 GB for industrial use	microSD memory card	4051366
Mounting systems				
		• **Description:** Simple mounting bracket	Mounting bracket	2071067
RFID transponders				
		• **Carrier frequency:** 865 MHz ... 928 MHz • **Memory capacity (EPC / user memory):** 496/128 Bit (EPC / User Memory) • **Dimensions (L x W x H):** 18 mm x 122 mm x 2 mm	UHF Transponder, Rectangular, global	6088050
Junction boxes				
			CDB620-001	1042256

	Brief description	Type	part no.
network devices			
		CDF600-2200 - V2.x, NetX51	1062460
		CDF600-2200 - V1.x, NetX50	1129242

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**

SICK AG | Waldkirch | Germany | www.sick.com

SICK
Sensor Intelligence.