



# RFU620-10400

RFU62x

RFID

**SICK**  
Sensor Intelligence.



### Ordering information

| Type         | part no. |
|--------------|----------|
| RFU620-10400 | 1062600  |

Other models and accessories → [www.sick.com/RFU62x](http://www.sick.com/RFU62x)



### Detailed technical data

#### Features

|                          |   |
|--------------------------|---|
| <b>Version</b>           | Mid Range   |
| <b>Product category</b>  | RFID read/write device with integrated antenna              |
| <b>Radio approval</b>    | European Union <sup>1)</sup><br>South Africa<br>Serbia      |
| <b>Frequency band</b>    | UHF (860 MHz ... 960 MHz)                                   |
| <b>Carrier frequency</b> | 865.7 MHz ... 867.5 MHz                                     |
| <b>Output power</b>      | 0.25 W (ERP, 24 dBm)  |
| <b>RFID standard</b>     | EPCglobal UHF Class 1 Generation 2, ISO/IEC 18000-6 C, RAIN |
| <b>Modulation</b>        | PR-ASK  |
| <b>Connection type</b>   | Cable   |
| <b>Aperture angle</b>    | 100°  |
| <b>Heating</b>           | No  |
| <b>Reading range</b>     | ≤ 2 m <sup>2)</sup>   |
| <b>Antenna</b>           | Integrated  |
| Transmitting power       | Adjustable  |
| Polarization             | Circular  |
| Axial ratio              | Typ. 2 dB   |
| Front-to-back ratio      | > 5 dB  |

<sup>1)</sup> All member states of the European Union, EEA-EFTA states (Liechtenstein, Iceland, Norway), Switzerland, Turkey.

<sup>2)</sup> Depending on transponder used and ambient conditions.

|                          |  |
|--------------------------|--|
| <b>Further functions</b> | 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 $\geq$ 2.0.0) |
|--------------------------|--|

<sup>1)</sup> All member states of the European Union, EEA-EFTA states (Liechtenstein, Iceland, Norway), Switzerland, Turkey.

<sup>2)</sup> Depending on transponder used and ambient conditions.

## Mechanics/electronics

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

## Interfaces

|                        |                              |   |
|------------------------|------------------------------|---|
| <b>Serial</b>          |                              | ✓, 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  |
| <b>CAN</b>             |                              | ✓   |
|                        | Remark                       | CSN (SICK CAN Sensor Network)   |
|                        | Function                     | Data interface (read result output)   |
| <b>PROFIBUS DP</b>     |                              | ✓   |
|                        | Type of fieldbus integration | Optional over external fieldbus module CDF600-2   |
|                        | Function                     | Data interface (read result output)   |
| <b>USB</b>             |                              | ✓   |
|                        | Remark                       | USB 2.0   |
|                        | Function                     | Service interface   |
| <b>PROFINET</b>        |                              | ✓   |
|                        | Type of fieldbus integration | Optional over external fieldbus module CDF600-2   |
|                        | Function                     | PROFINET Dual Port, Data interface (read result output)   |
| <b>CANopen</b>         |                              | ✓   |
|                        | Function                     | Data interface (read result output)   |
| <b>EtherCAT®</b>       |                              | ✓   |
|                        | Type of fieldbus integration | Optional over external fieldbus module  |
|                        | Function                     | Data interface (read result output)   |
| <b>Digital inputs</b>  |                              | 2 (physical, 2 additional logical inputs via optional CMC600 parameter memory in CD-B620 / CDM420)  |
| <b>Digital outputs</b> |                              | 2 (physical, 2 additional logical outputs via optional CMC600 parameter memory in CD-B620 / CDM420) |

<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>Optical indicators</b>     | 7 LEDs, multi-color (device status)<br>4 RGB LED (Process feedback) |
| <b>Configuration software</b> | SOPAS ET <sup>1)</sup>  |
| <b>Memory card</b>            | microSD memory card (parameter cloning, data storage)               |

<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>       | -25 °C ... +50 °C     |
| <b>Storage temperature</b>                 | -40 °C ... +70 °C     |
| <b>Permissible relative humidity</b>       | 90 %, Non-condensing  |

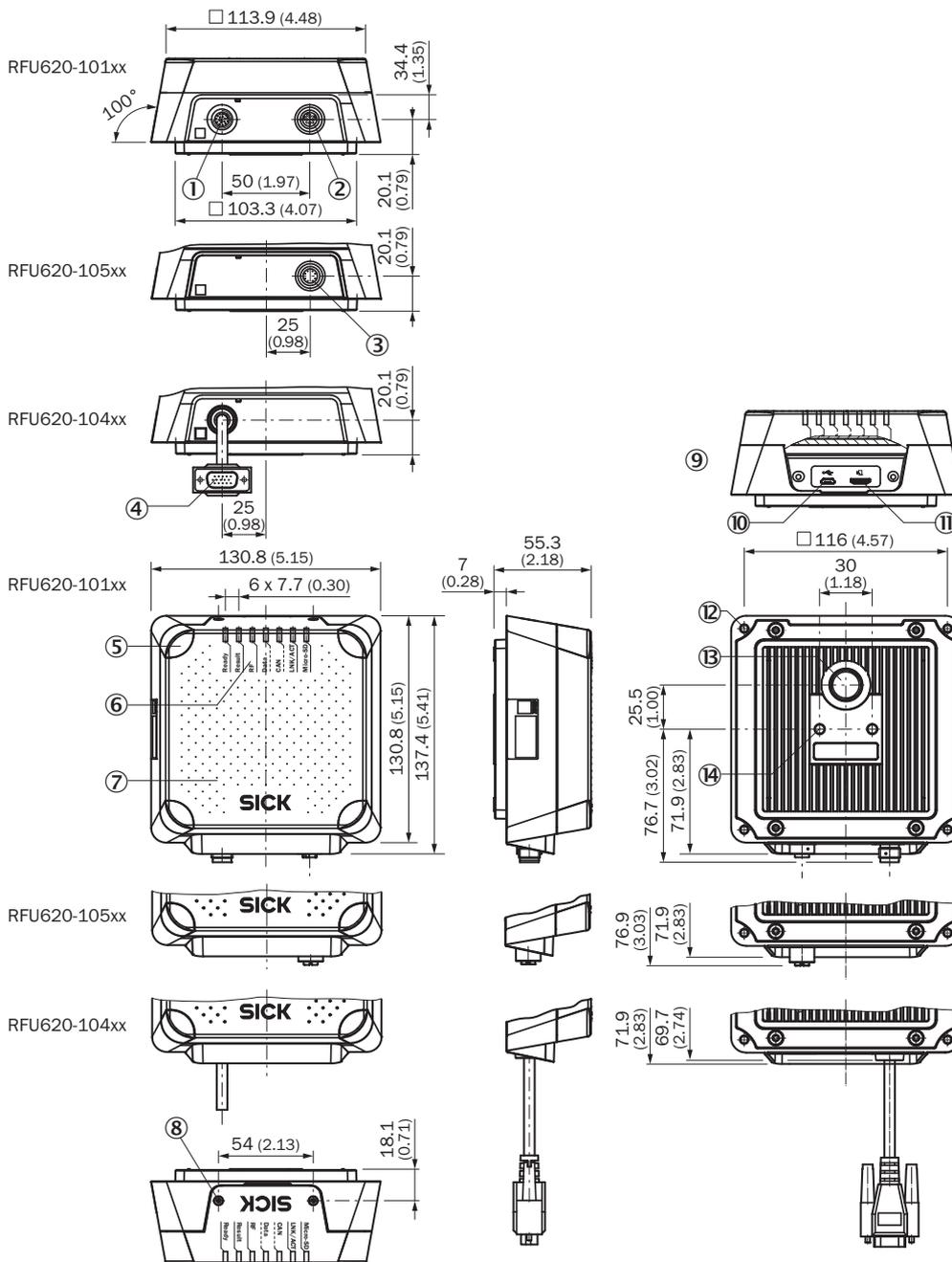
### Certificates

|  |   |
|--|---|
| <b>EU declaration of conformity</b>  | ✓ |
| <b>UK declaration of conformity</b>  | ✓ |
| <b>China RoHS</b>  | ✓ |
| <b>Profinet certificate</b>  | ✓ |
| <b>Radio Approval certificate Serbia</b>                                     | ✓ |
| <b>Radio Approval certificate South Africa</b>                               | ✓ |
| <b>Information according to Art. 3 of Data Act (Regulation EU 2023/2854)</b> | ✓ |
| <b>4Dpro</b>   | ✓ |
| <b>RAIN RFID</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 5.0</b>       | EC002998 |
| <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 RFU62x

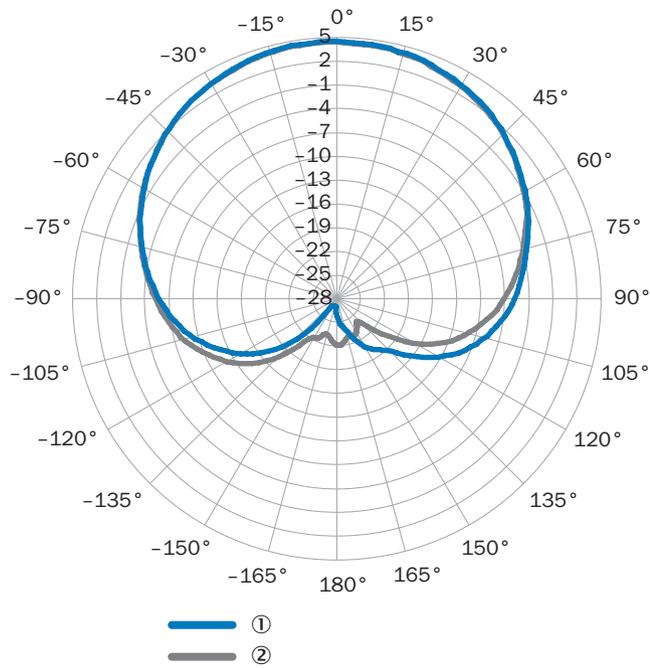


Dimensions in mm (inch)

- 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, type Micro-B
- ⑪ Slot for microSD memory card
- ⑫ blind hole thread M5, 9 mm deep (4 x), for alternatively mounting

- ⑬ pressure compensation valve (ventilation 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<sup>®</sup>

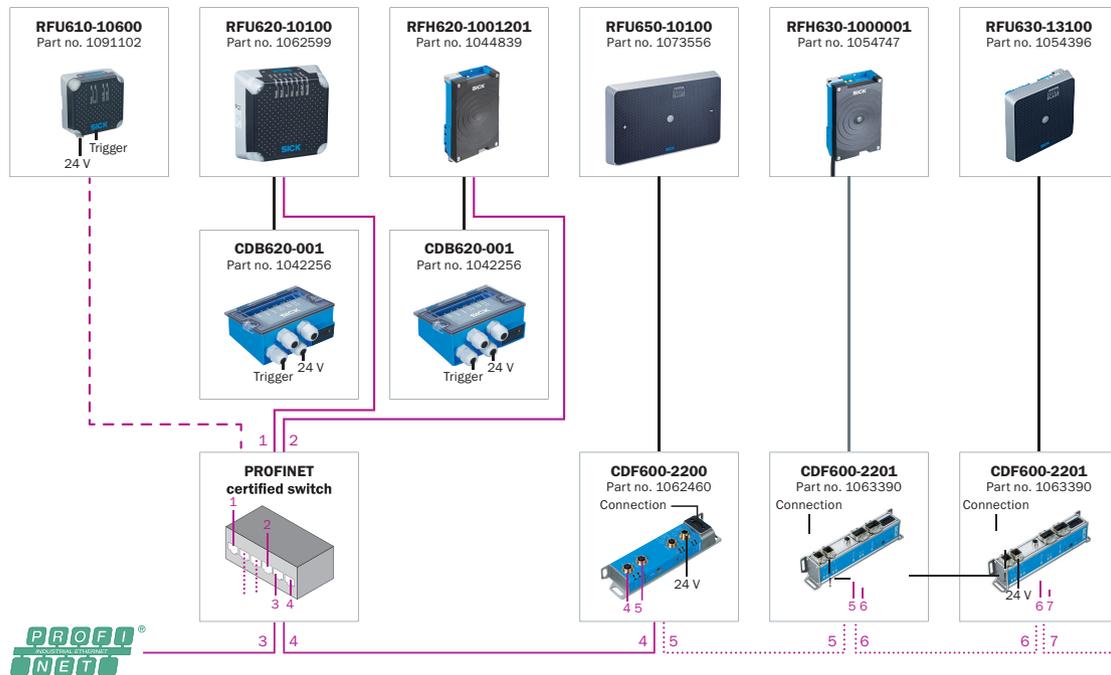
EtherCAT<sup>®</sup>



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

### Connection diagram PROFINET IO/RT

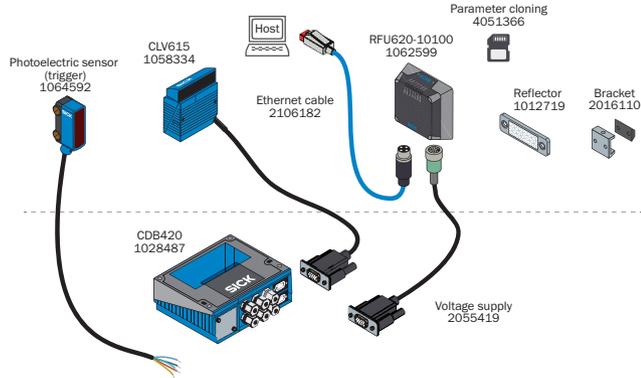
#### PROFINET



System construction



RFU62x



data combination of barcode and RFID

Recommended accessories

Other models and accessories → [www.sick.com/RFU62x](http://www.sick.com/RFU62x)

|   | Brief description   | Type                                 | part no. |
|---|---|--------------------------------------|----------|
| connectors and cables   |   |                                      |          |
|  | <ul style="list-style-type: none"> <li><b>Connection type head A:</b> Male connector, Micro-B, 4-pin, straight</li> <li><b>Connection type head B:</b> Male connector, USB-A, 4-pin, straight</li> <li><b>Signal type:</b> USB 2.0</li> <li><b>Cable:</b> 2 m, 4-wire</li> <li><b>Description:</b> USB 2.0, unshielded</li> </ul> | USB cable                            | 6036106  |
| Storage media   |   |                                      |          |
|  | <ul style="list-style-type: none"> <li><b>Description:</b> microSD memory card with 1 GB for industrial use</li> </ul>  | microSD memory card                  | 4051366  |
| Mounting systems  |   |                                      |          |
|  | <ul style="list-style-type: none"> <li><b>Description:</b> Simple mounting bracket</li> </ul>   | Mounting bracket                     | 2071067  |
| RFID transponders   |   |                                      |          |
|  | <ul style="list-style-type: none"> <li><b>Carrier frequency:</b> 865 MHz ... 928 MHz</li> <li><b>Memory capacity (EPC / user memory):</b> 496/128 Bit (EPC / User Memory)</li> <li><b>Dimensions (L x W x H):</b> 18 mm x 122 mm x 2 mm</li> </ul>  | UHF Transponder, Rectangular, global | 6088050  |
| Junction boxes  |   |                                      |          |
|  |   | CDB620-001                           | 1042256  |

|   | Brief description | Type                          | part no. |
|---|-------------------|-------------------------------|----------|
| network devices   |                   |                               |          |
|  |                   | CDF600-2200<br>- V2.x, NetX51 | 1062460  |
|  |                   | CDF600-2200<br>- 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](http://www.sick.com)