



# RFU620-10105

RFU62x

RFID

**SICK**  
Sensor Intelligence.



### Ordering information

Type	part no.
RFU620-10105	1068728

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>	China (800 900 RFID 设备检验标准) Thailand
<b>Frequency band</b>	UHF (860 MHz ... 960 MHz)
<b>Carrier frequency</b>	920.625 MHz ... 924.375 MHz
<b>Output power</b>	0.2 W (ERP, 23 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>	Ethernet
<b>Aperture angle</b>	100°
<b>Heating</b>	Yes
<b>Reading range</b>	≤ 2 m <sup>1)</sup>
<b>Antenna</b>	Integrated
Transmitting power	Adjustable
Polarization	Circular
Axial ratio	Typ. 3 dB
Front-to-back ratio	> 5 dB
<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 ≥ 2.0.0)

<sup>1)</sup> Depending on transponder used and ambient conditions.

## Mechanics/electronics

<b>Connection type</b>	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
<b>Supply voltage</b>	10 V DC ... 30 V DC <sup>1)</sup>
<b>Power consumption</b>	Typ. 8 W, with heating typ. 16 W
<b>Housing material</b>	Aluminum die cast Plastic (PPS)
<b>Enclosure rating</b>	IP67
<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

<sup>1)</sup> With heating 20 V DC ... 30 V DC.

## Interfaces

<b>Ethernet</b>		✓ , 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
<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>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>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>USB</b>		✓

<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).

	Remark	USB 2.0
	Function	Service interface
<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)
<b>Optical indicators</b>		7 LEDs, multi-color (device status) 4 RGB LED (Process feedback)
<b>Operator interfaces</b>		Web server
<b>Configuration software</b>		SOPAS ET <sup>1)</sup>
<b>Programming interface</b>		Application-specific programming using the SICK AppStudio development environment
<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>	-40 °C ... +50 °C
<b>Storage temperature</b>	-40 °C ... +70 °C
<b>Relative humidity</b>	90 %, Non-condensing

### Certificates

<b>China RoHS</b>	✓
<b>Profinet certificate</b>	✓
<b>Radio Approval certificate China</b>	✓
<b>Radio Approval certificate Thailand</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

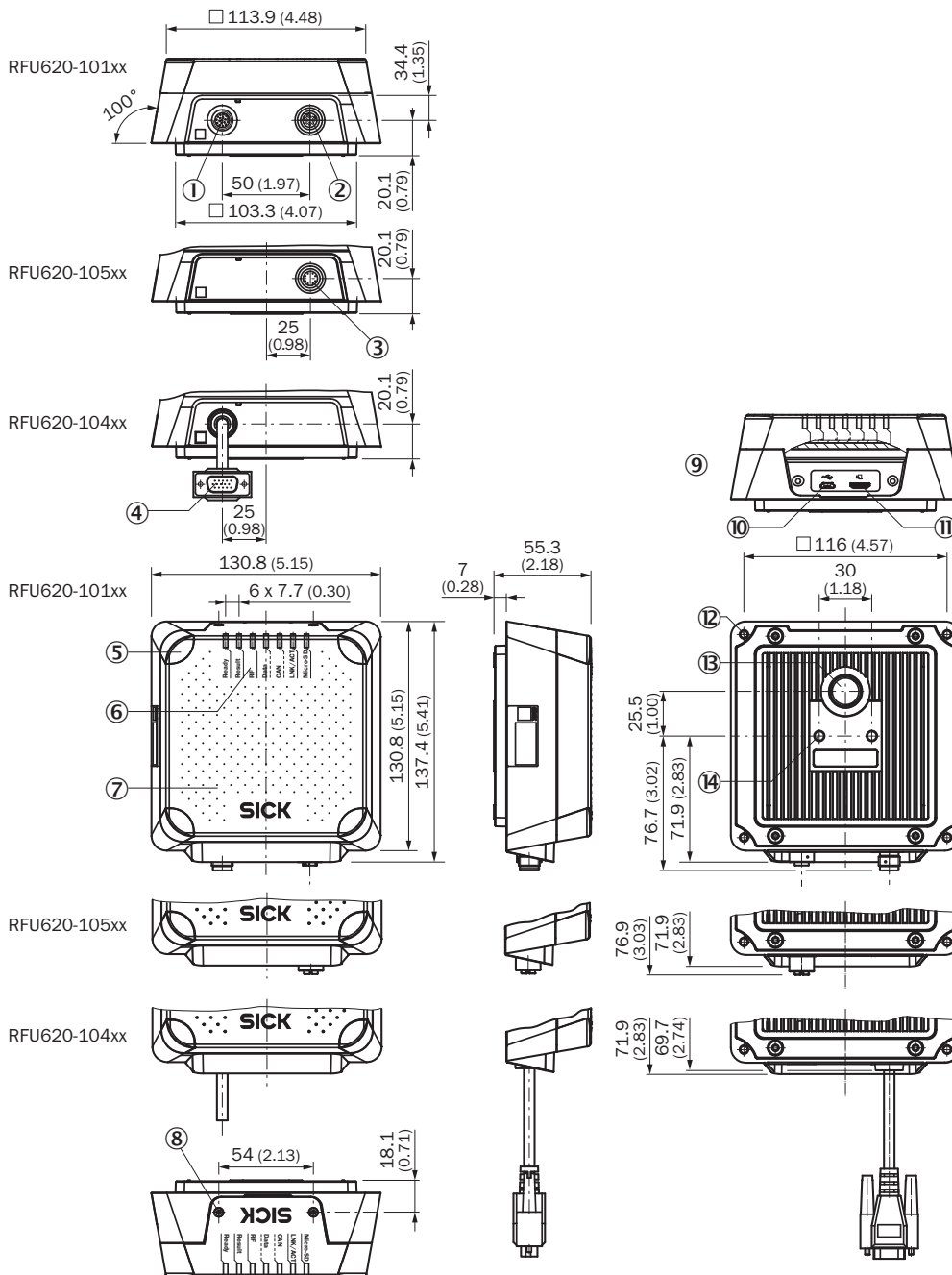
ETIM 8.0

EC002998

UNSPSC 16.0901

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dimensional drawing RFU62x

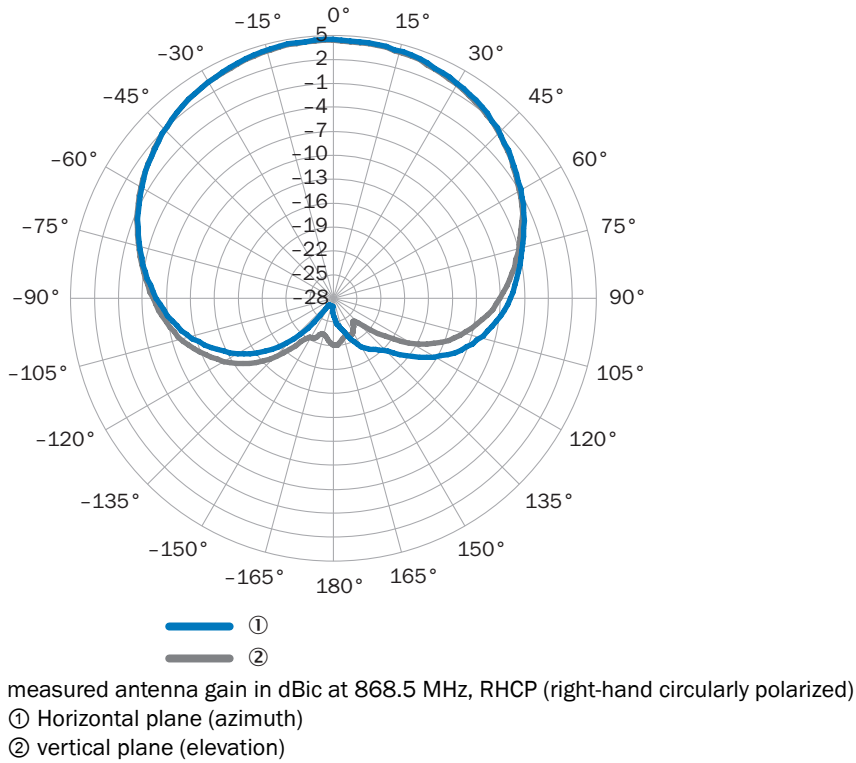


Dimensions in mm (inch)

- 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 (ventilation element)
- ⑭ M6 blind tapped holes, 7 mm deep (2 x), for mounting

### Radiation pattern



Connection diagram EtherCAT®

EtherCAT®



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

### Connection diagram PROFINET IO/RT

#### PROFINET

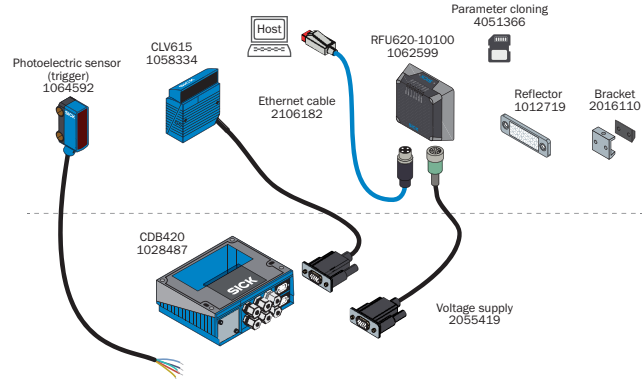


- Connecting cable (already present on device)
- Connection cable, 2 m (Part no. 6061702)
- PROFINET cable, 2 m (Part no. 2106182)
- PROFINET cable, 2 m (Part no. 2106258)
- ..... PROFINET cable, ready to assemble AIDA plug connectors

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.
<b>connectors and cables</b>			
	<ul style="list-style-type: none"> <li><b>Description:</b> USB 2.0, unshielded</li> <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> </ul>	YMUSA4-020VG4MUIA4	6036106
	<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
<b>Storage media</b>			
	<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
<b>Mounting systems</b>			
	<ul style="list-style-type: none"> <li><b>Description:</b> Simple mounting bracket</li> </ul>	Mounting bracket	2071067
<b>RFID transponders</b>			
	<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

	Brief description	Type	part no.
Junction boxes			
		CDB620-001	1042256

## 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)