



RFU63x RFID

Intelligent technology ensures easy integration

RFU63x – compact, industrial, intelligent

The RFU63x sets new standards for automatic identification with RFID. Through its combination of high-performance hardware and intelligent software, the RFU63x is capable of solving the most demanding auto ID tasks in industrial automation. The RFU63x fulfills industry standards such as EPCglobal and ISO/IEC 18000-6C and reads/writes to conventional passive storage media. This ensures long-term investment security.



Thanks to the IDpro platform from SICK, the RFU63x can be easily integrated into customary factory and logistics automation fieldbus levels. The SOPAS user interface makes it possible to quickly and flexibly adapt the device to the necessary application-specific tasks.

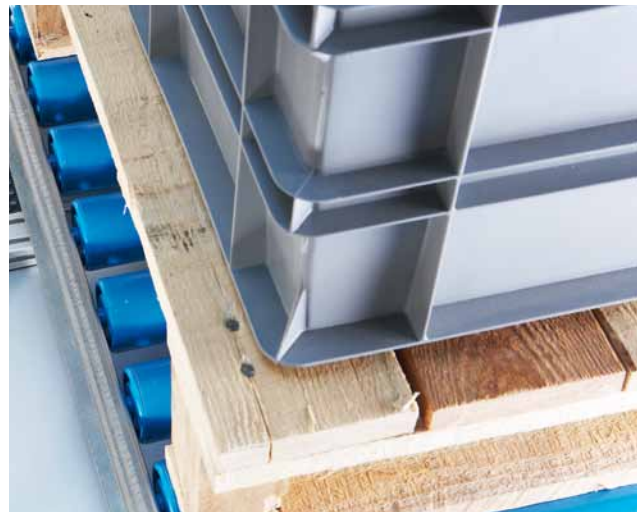
With a high output power and receiver sensitivity, greater scanning ranges can be reached. Through the integrated anti-collision feature, several transponders located simultaneously in a field can be captured. The robust and industry-suitable design allows the use with forklift trucks and in indoor or outdoor areas, among others.



Vehicle body identification in auto manufacturing



Pallet detection in warehouse and distribution centers





Identification of special load carriers



Intelligent technology ensures easy integration



Product description

The RFU63x is an ultra-high frequency (UHF) RFID solution for industrial environments. Via integrated application management software, the RFU63x is able to solve common industrial applications without any external “middleware” and can, therefore, be used as a stand-alone solution. This is possible due to an integrated filter and data manage-

ment system. With ID*pro* compatibility, the RFU63x is easy and cost-efficient to integrate in common industrial environments. Different options for parameter cloning between systems (e.g., integrated MicroSD card feature) reduce maintenance time. The integrated feedback LED can be used to read diagnostic or process feedback.

At a glance

- UHF RFID read/write unit for industrial applications
- Compact device with integrated antenna (additional external antennas can be connected)
- Standard-compliant transponder interface (ISO/IEC 18000-6C/EPC G2C1)
- Supports common industrial data interfaces and fieldbuses
- MicroSD memory card for device parameter cloning
- Several diagnostic and service options available

Your benefits

- Intelligent technology allows stand-alone usage
- Highest reading/writing performance
- Flexible integration in common industrial fieldbuses via ID*pro* compatibility
- Less maintenance time due to an integrated cloning back-up system using microSD memory card
- Easily adapts to application requirements via SOPAS parameter setting tool
- Free usable feedback LED quickly provides read results and diagnostic information directly to the user



Additional information

Detailed technical data 5
 Ordering information 6
 Accessories 7

→ www.mysick.com/en/RFU63x

Detailed technical data

Features

Product category	Interrogator (write/read unit)
Frequency band	UHF (860 ... 960 MHz)
Version	Long Range
Scanning range	Typ. 5 m ¹⁾
Antenna	Integrated (circular polarized, axial ration < 2 dB, 72° field opening, front to back ratio > 17 dB), additionally 3 external antenna ports
Service functions	Parameter cloning with integrated microSD card slot or externally via CMC module in CDB620
Further functions	Cloning function (SD card or system), diagnosis, updatable firmware, freely programmable data output format, heartbeat, triggering

¹⁾ Depending on transponder used and ambient conditions.

Interfaces

UHF interface		✓
	Carrier frequency	865 MHz ... 868 MHz / 902 MHz ... 928 MHz (depending on type)
	Output power	2 W ERP / 4 W EIRP (for integrated antenna, alternatively 30 dBm at external antenna ports, output power adjustable) (depending on type)
	RFID standard	EPCglobal UHF Class 1 Generation 2
Serial (RS-232, RS-422/-485)		✓
	Function	Host, AUX
	Data transmission rate	300 Baud ... 115.2 kBaud, AUX: 57,6 kBaud (RS-232)
USB		✓
	Function	AUX
Ethernet		✓
	Function	Host, AUX
	Data transmission rate	10/100 Mbit/s
	Protocol	TCP/IP, EtherNet/IP
PROFIBUS		-, optional via external connection module (CDF)
PROFINET		-, optional via external connection module (CDM425)
CAN-Bus		✓
	Function	Host
	Data transmission rate	20 kbit/s ... 1 Mbit/s
Switching inputs		4 ("Sensor 1", "Sensor 2", 2 inputs via CMC600 in CDB620/CDM420)
Switching outputs		4 ("Result 1", "Result 2", 2 outputs via CMC600 in CDB620/CDM420)
Optical indicators		8 LED, one of them multi-colored (function configurable via SOPAS, alternatively controlling with sw commands, status displays)
Acoustic indicators		1 beeper/buzzer (can be switched off, can be allocated as a result status indication function)
Control elements		2 buttons (choose and start/stop functions)

Mechanics/electronics

Electrical connection	1 x M12, 17-pin plug 1 x M12, 4-pin socket Ethernet Cylindrical connectors
Operating voltage	12 V DC ... 30 V DC ¹⁾
Power consumption	< 20 W, with switching outputs not connected and full transmit power
Housing	Die-cast aluminum
Enclosure rating	IP 65 / IP 67
Protection class	III
Weight	3.5 kg
Dimensions	239 mm x 239 mm x 64 mm

¹⁾ Limited operating voltage range in combination with CDB620 and CDF600.

Ambient data

Radio equipment type approval	Europe (EN 302 208-2 V1.4.1) / North America (FCC Part 15) (depending on type)
Electromagnetic compatibility (EMC)	EN 61000-6-3 (2007-09) / EN 61000-6-2 (2009-05)
Vibration resistance	EN 60068-2-6 (2008-02)
Shock resistance	EN 60068-2-27 (2009-05)
Ambient operating temperature	-20 °C ... +50 °C
Storage temperature	-30 °C ... +70 °C
Permissible relative humidity	90 %, non-condensing

Ordering information

- **Frequency band:** UHF (860 ... 960 MHz)
- **Version:** Long Range




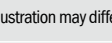

Radio equipment type approval	Model name	Part no.
Europe	RFU630-13100	1054396
North America	RFU630-13101	1054397

Accessories

Device protection (mechanical)

Brief description	Part no.
Pivot mounting bracket, with mounting material	2061737
VESA mounting bracket, with mounting material	2061688
Mounting bracket for wall fastening, with mounting material	2060912


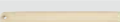
Modules

	Brief description	Model name	Part no.
	Small connection module for one sensor, 4 cable glands, base for CMC600, 1.2 A fuse	CDB620-001S02	1056432
	CDF600 fieldbus proxy to connect a RFU63x to a PROFIBUS network	CDF600-0120	1056443
	Modular connection module for one sensor, additional M12 socket for PROFINET on face plate, 1.2 A fuse	CDM425-00034094S01	1056308
 Illustration may differ	Modular connection module for two sensors, additional M12 socket for PROFINET on face plate. Reduction of cable glands from 6 to 4, M12 socket for CAN bus and M12 plug for connection to power supply on front side, 1.2 A fuse	CDM425-10234094S01	1056418
	External parameter memory for integration in CDB620/CDM42x	CMC600-101	1042259


Power supply units

Brief description	Part no.
Power supply unit with pre-assembled M12 socket, 17-pin	2062249

RFID transponder

	Brief description	Model name	Part no.
	UHF transponder on metal 52 mm x 64 mm x 10 mm	RFT661-4654	6034437
	UHF transponder 223 mm x 23 mm x 8 mm	RFT661-5653	6034277

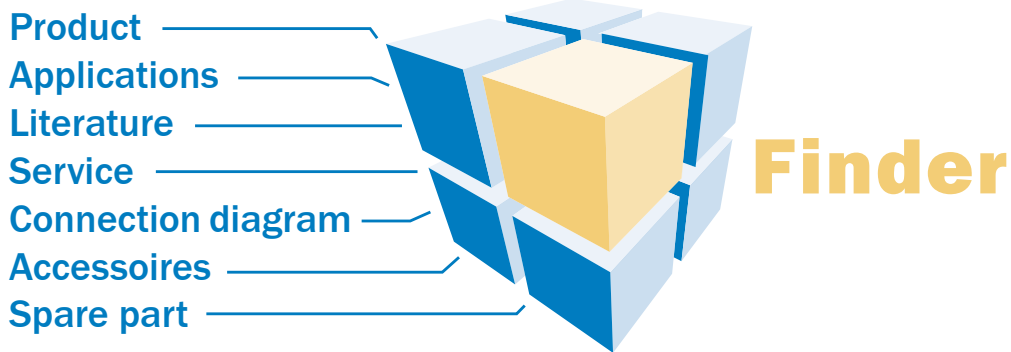
Storage mediums

	Brief description	Part no.
	Micro SD flash card, storage medium with 512 MB	4051366
	Micro SD flash card, storage medium with 2 GB	2044525

Plug connectors and cables

	Brief description	Part no.
	Cable, M12, 17-pin, to CDB620/CDM420/CDM425/CDF600 15-pin D-sub, 0.9 m (socket/plug)	2049764
	Cable, M12, 17-pin, to CDB620/CDM420/CDM425/CDF600 15-pin D-sub, 2 m (socket/plug)	2055419
	Cable, M12, 17-pin, to CDB620/CDM420/CDM425/CDF600 15-pin D-sub, 3 m (socket/plug)	2055420
	Cable, M12, 17-pin, to CDB620/CDM420/CDM425/CDF600 15-pin D-sub, 5 m (socket/plug)	2055859
	Ethernet cable, 4-pole, shielded, M12 plug, 4-pin (D-type encoded) / RJ-45 plug, 8-pin, 2 m	6034414
	Ethernet cable, 4-pole, shielded, M12 plug, 4-pin (D-type encoded) / RJ-45 plug, 8-pin, 3 m	6044400
	Ethernet cable, 4-pole, shielded, M12 plug, 4-pin (D-type encoded) / RJ-45 plug, 8-pin, 5 m	6034415
	Ethernet cable, 4-pole, shielded, M12 plug, 4-pin (D-type encoded) / RJ-45 plug, 8-pin, 10 m	6030928
	Ethernet cable, 4-pole, shielded, M12 plug, 4-pin (D-type encoded) / RJ-45 plug, 8-pin, 20 m	6036158
	Ethernet cable, 4-pole, shielded, drag-chain compliant, M12 plug, 4-pin (D-type encoded) / RJ-45 plug, 8-pin, 3 m	6029630
	Ethernet cable, 4-pole, shielded, M12 plug, 4-pin (D-type encoded) / M12 plug, 4-pin (D-type encoded), 2 m	6034420
	Ethernet cable, 4-pole, shielded, M12 plug, 4-pin (D-type encoded) / M12 plug, 4-pin (D-type encoded), 3 m	6034421
	Ethernet cable, 4-pole, shielded, M12 plug, 4-pin (D-type encoded) / M12 plug, 4-pin (D-type encoded), 5 m	6034422
	Cable, M12, 17-pin, to open end, 3 m (socket/open end)	6042772
	Cable, M12, 17-pin, to open end, 5 m (socket/open end)	6042773
	Cable, M12, 17-pin, to open end, 5 m (socket/ open end), drag-chain compliant	6045141
	Cable, M12, 17-pin, to CDB620/CDM420/CDM425/CDF600 15-pin D-sub, 3 m (socket/plug), drag-chain compliant	2061605
	Power supply cable, with M12 17-pin socket/open end, 2-pin, 10 m	6048319
	Extension cable, 3 m, 15-wired, shielded, with 15-pin D-sub HD (plug/socket) AWG26	6034418
	Extension cable, 2 m, 15-wired, shielded, with 15-pin D-sub HD (plug/socket) AWG26	6034417
	Extension cable, 2 m, 15-wired, shielded, with 15-pin D-sub HD (socket/open end) AWG26	2043413
	D-sub plug house, 15-pin HD plug, hand-soldered terminal	6010020
	D-sub plug house, 15-pin HD socket, hand-soldered terminal	6010019
	D-sub plug house (metal), for 9-/15-pin HD insert	6009438
	Black AS-i flat cable for looping in the power supply to IDpro Ethernet sensors, sold per meter	6022463
	M12 AS-i clip for connection on black AS-i flat cable	6022472
	Cable, M12 17-pin to M12 4-pin for connecting one IDpro sensor to a M12 AS-i clip on black AS-i flat cable, 1 m (plug/socket), drag-chain compliant	6044574
	Cable, M12 17-pin to M12 4-pin for connecting one IDpro sensor to a M12 AS-i clip on black AS-i flat cable, 2.5 m (plug/socket), drag-chain compliant	6044575
	USB cable, 2 m	6036106
	Converter RS-232 to USB (if no RS-232 interface is available with the PC)	6042499

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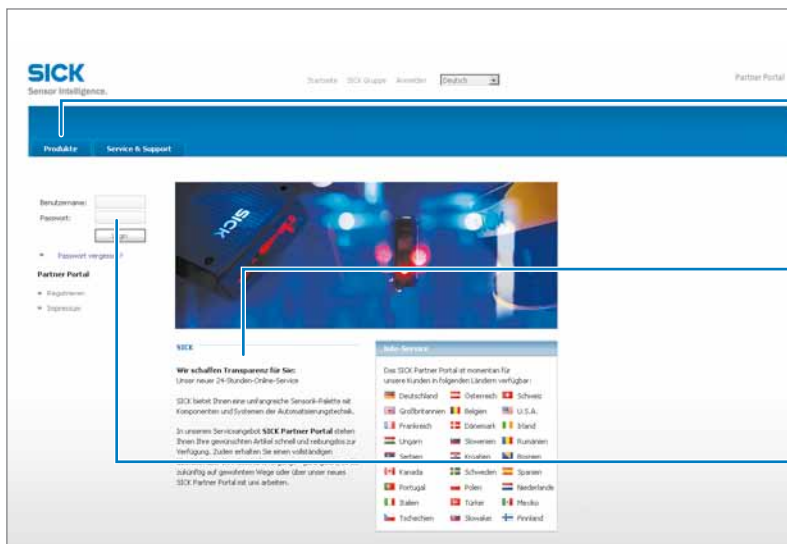
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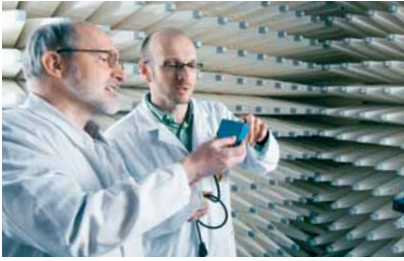
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