

ARU4 RFID UHF Reader System

ARU4-ELC-U6

Order-No. 52010271

KATHREIN
RFID

The Kathrein-RFID (Radio Frequency Identification) Reader ARU4 is a unit with an Ethernet communication interface and an integrated antenna to read out active and passive RFID tags in the frequency range from 902 to 928 MHz. The device can read and write tags conforming to the EPC Gen2 standard (ISO 18000-6C) from delivery status. The unit contains an integrated antenna, simplifying cabling and providing an economical application solution.

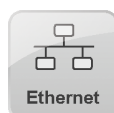
With the Linux running on the embedded PC based on the Q7 standard, a high computing power is available. The user can set up and run his own complex applications. Thus, the device is ideal for applications with time-critical filters in high to very high tag populations.



Order-No.		52010271
Frequency range	MHz	902-928
Output power at antenna port (max.)	dBm	+30 (+33 with extended cable length)
Emitted output power (max.)	dBm	+36 EIRP
Protocols		EPC Class1 Gen2/ISO 18000-6C
Nominal impedance (antenna ports)	Ω	50
RX input sensitivity	dBm	typ. -80
Antenna interface		3 port TX/RX interface with TNC-rev. (female) connectors
Internal antenna		
Far field half-power beam width	$^{\circ}$	69
Polarization		circular
Antenna gain	dBic	8.5
Axial ratio	dB	typ. 1
Communication interface		Ethernet 10/100 MBit/s
Operating system reader		Kathrein firmware @ ARM 9 processor
Embedded pc module		
Processor		ARMv7-A compatible processor 1GHz
Flash memory		eMMC 4GB
RAM		512MB 200MHz DDR SDRAM
Linux kernel		> version 2.6
Digital interfaces (GPIO)		4 digital inputs; 4 digital outputs
Current load digital interfaces (DO)	mA	500 each; max. 1500
Supply voltage	V DC	+10 to +30
Current consumption (at 24 V DC)	mA	typ. 800 (without GPIO); max. 2500 (incl. GPIO)
Connector (male) power supply		1x M12, 4-pole, A-coded
Connector (female) Ethernet		1x M12, 4-pole, D-coded
Connector (female) GPIO		2x M12, 8-pole, A-coded
Operating temperature range	$^{\circ}\text{C}$	-20 to +55
Storage temperature range	$^{\circ}\text{C}$	-40 to +85
Housing materials		die-cast aluminium, steel, plastic
Dimensions (L x W x H)	mm	270 x 270 x 88
Weight	kg	3.32
Degree of protection		IP 65 (at covering of not used connectors)
Conform to		FCC part 15, UL pending, IC-FCB

Technical Features:

- System compliant to EPC Class 1 Gen2/ISO 18000-6C standards
- Integrated 70° Wide Range Antenna
- Combined TX/RX antenna ports (1 internal, 3 external)
- Dense Reader Mode (DRM)
- output power adjustable from 6 dBm up to 33 dBm in 0.25 dB steps
- calibrated output power from 17 dBm up to 33 dBm (50 mW - 2 W)

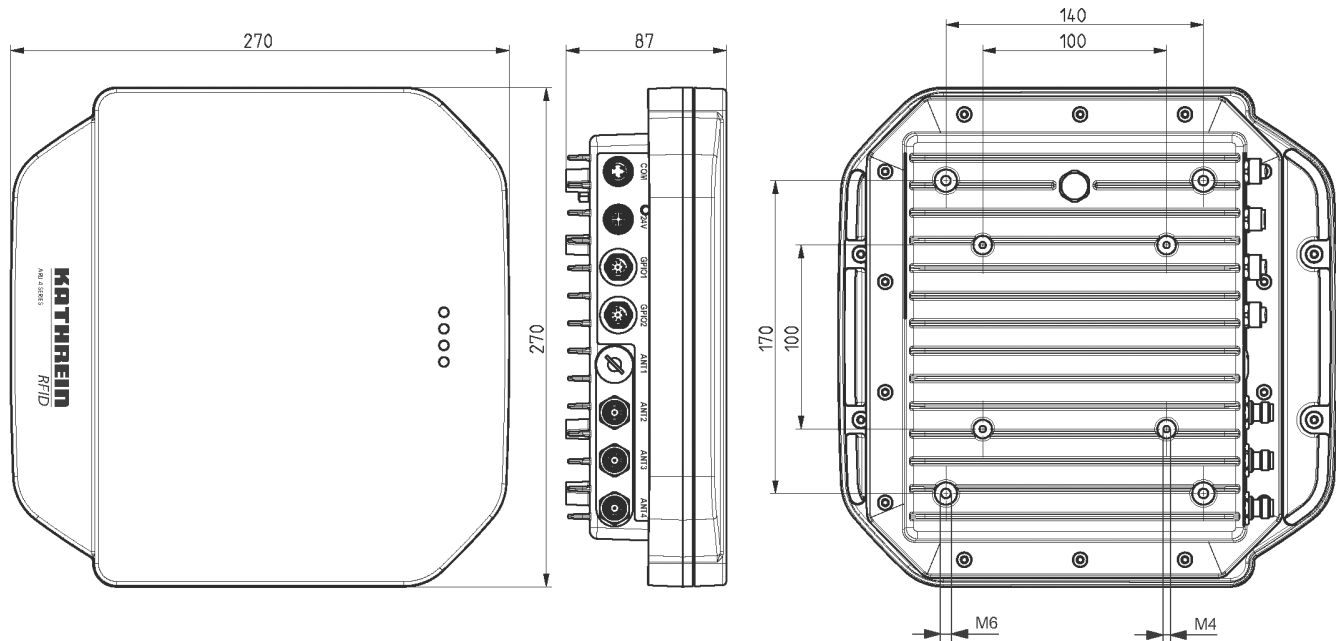


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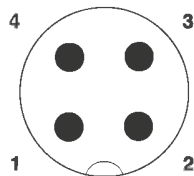
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Dimensions in [mm]:



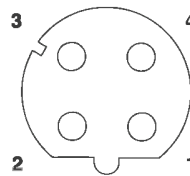
Electrical interfaces:

Power supply:



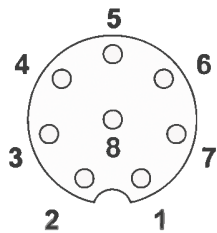
Pin	Allocation
1	+24 V DC
2	n.c.
3	GND
4	n.c.

Ethernet:



Pin	Allocation
1	TD+
2	RD+
3	TD-
4	RD-

Digital inputs and outputs (GPIO):



Pin	GPIO 1	GPIO 2
1	OUT_CMN	OUT_CMN
2	INPUT 3	INPUT 0
3	INP_CMN	INP_CMN
4	GND	GND
5	Vcc	Vcc
6	OUTPUT 3	OUTPUT 1
7	OUTPUT 2	OUTPUT 0
8	INPUT 2	INPUT 1

Scope of delivery:

- CD-ROM with manual and data sheet (.pdf)
- Grounding set M6

Accessories (optional):

- Cable adaptor set (Order-No. 52010126); includes:
1x power supply cable, 1x Ethernet port cable, 2 x GPIO cable
- wall/mast bracket (Order-No. 52010128), mounting kit for outdoor use
- wall bracket (Order-No. 52010261), mounting kit for indoor use only
- protective cover set (Order-No. 52010127)

