

# ARU RFID UHF Reader System

## ARU-CSB-ELC-ETSI

Order-No. 52010263

**KATHREIN**  
RFID

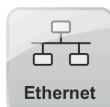
The Kathrein-RFID Reader ARU-CSB-ELC-ETSI offers an Ethernet communication interface and an integrated 30° Wide Range antenna with three selectable read zones. Active and passive RFID tags can be read out in the frequency range from 865 to 868 MHz (865 to 867 MHz for India). The device can read and write tags conforming to the EPC Gen2 standard (ISO 18000-6C). The three well defined read zones of the integrated 30° Wide Range antenna will be controlled by the reader, to offer optimized solution for logistics, intralogistics and retail application. An EAS anti-theft protection system is also possible with this unit. Due to an embedded Linux-based module, the reader can be used as a stand-alone system, running applications and parameterization directly on the reader without the need for a remote PC.



Order-No.		52010263
Frequency range	MHz	865-868 (865-867 for India)
Emitted output power (max.)	dBm	+30 ERP
Protocols		EPC Class1 Gen2/ISO 18000-6C
RX input sensitivity	dBm	typ. -80
Internal antenna		
Far field half-power beam width	°	30 vertical 80 horizontal
Switchable read field	°	+35 / 0 / -35
Polarization		circular
Antenna gain	dBiC	6
Axial ratio	dB	typ. 2
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	°C	-20 to +55
Storage temperature range	°C	-40 to +85
Housing materials		galvanized steel, fibreglass radome (UV resistance)
Dimensions (without brackets) (L x W x H)	mm	approx. 620 x 386 x 112
Weight	kg	9.0
Degree of protection		IP 65 (at covering of not used connectors)
Conform to		EN 60529, EN301489-1, EN 302208-1, EN 302208-2, EN 60950-1:2006, EN 50364

### Technical Features:

- System compliant to EPC Class 1 Gen2/ISO 18000-6C standards
- Integrated Circular-Switch-Beam antenna with three read zones
- Dense Reader Mode (DRM)
- output power adjustable from 9 dBm up to 30 dBm ERP in 0.25 dB steps
- calibrated output power from 17 dBm up to 30 dBm ERP (50 mW - 1 W ERP)

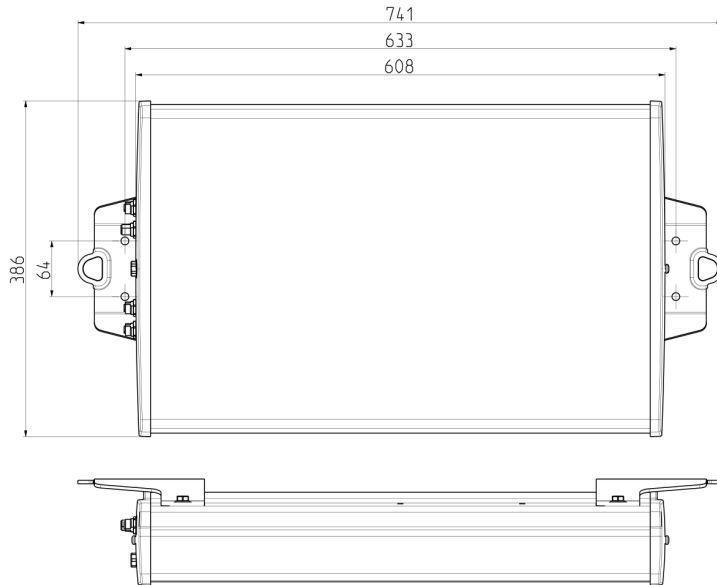


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## ARU-CSB-ELC-ETSI

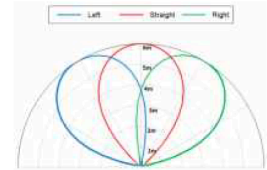
### Order-No. 52010263

#### Dimensions in [mm]:

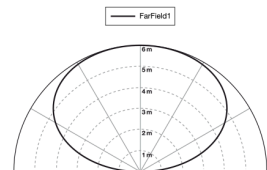


#### Antenna features:

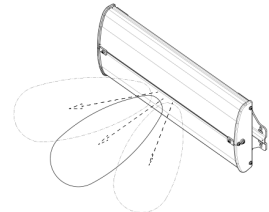
Read range vertical cut



Read range horizontal cut (if mounted like picture)

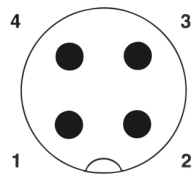


Directions of the switched beam



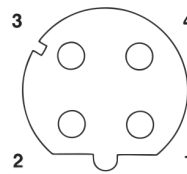
#### Electrical interfaces:

##### Power supply:



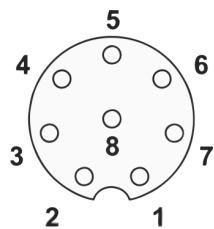
Pin	Allocation
1	+24 V DC
2	n.c.
3	GND
4	n.c.

##### 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)
- mast bracket (Order-No. 52010005), mounting kit for outdoor use
- protective cover set (Order-No. 52010127)

