

ARU RFID UHF Reader System

ARU-CSB-ELC-FCC

Order-No. 52010264

KATHREIN
RFID

The Kathrein-RFID Reader ARU-CSB-ELC-FCC 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 902 to 928 MHz. 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 AES 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. | | 52010264 |
| Frequency range | MHz | 902-928 |
| Emitted output power (max.) | dBm | +36 EIRP |
| 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 | 5.5 |
| 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 | | FCC part 15, UL pending, IC-FCB |

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 12 dBm up to 36 dBm in 0.25 dB steps
- calibrated output power from 23 dBm up to 36 dBm (0.2 W - 2 W) steps

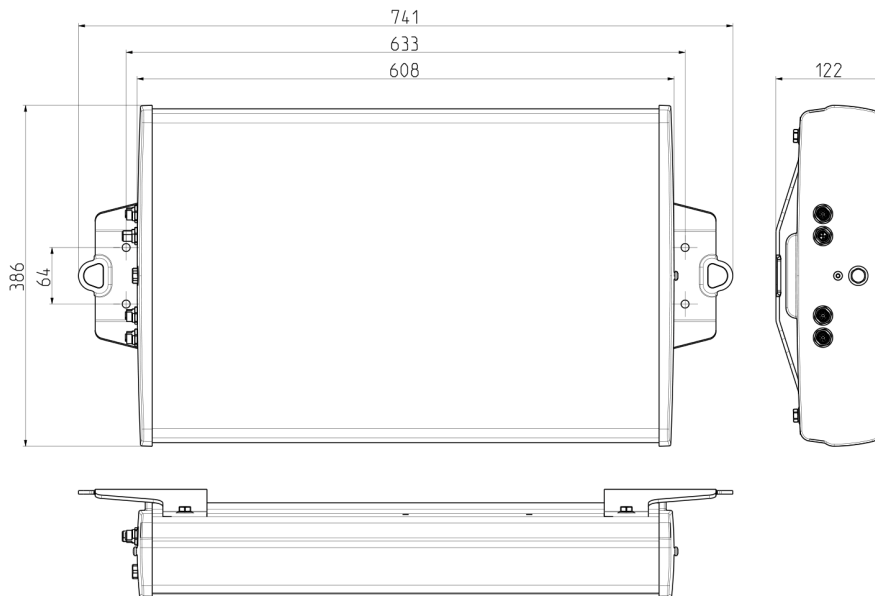


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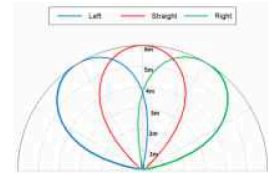
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Dimensions in [mm]:

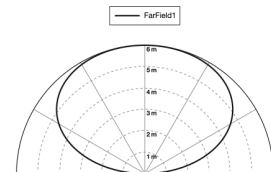


Antenna features:

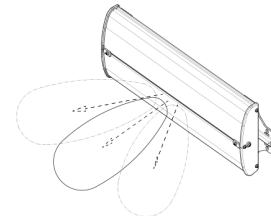
Read range vertical cut



Read range horizontal cut (if mounted like picture)

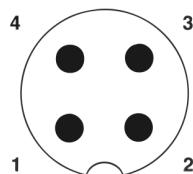


Directions of the switched beam



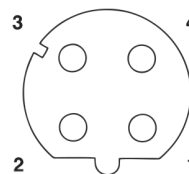
Electrical interfaces:

Power supply:



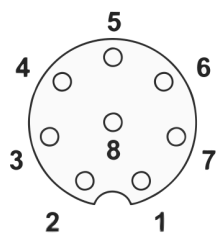
| Pin | Allocation |
|-----|------------|
| 1 | +24 V DC |
| 2 | n.c. |
| 3 | GND |
| 4 | n.c. |

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)

