

The Kathrein RRU 4400 reader is the next generation of RAIN RFID readers and the leading IoT device for all professional AutoID solutions. It is the first choice for professional IoT solutions, such as industrial automation and vehicle identification in ruggedised environments.

Its best-in-class 30-dBm UHF RF unit and connectivity interface PoE+ and the basic processing unit change the way identification works.

Based on the latest RFID standards, such as EPC Gen2v2/ISO 18000-63, Kathrein RRU 4400 reader supports all market leading transponder chip features for security, authentication and encoding.



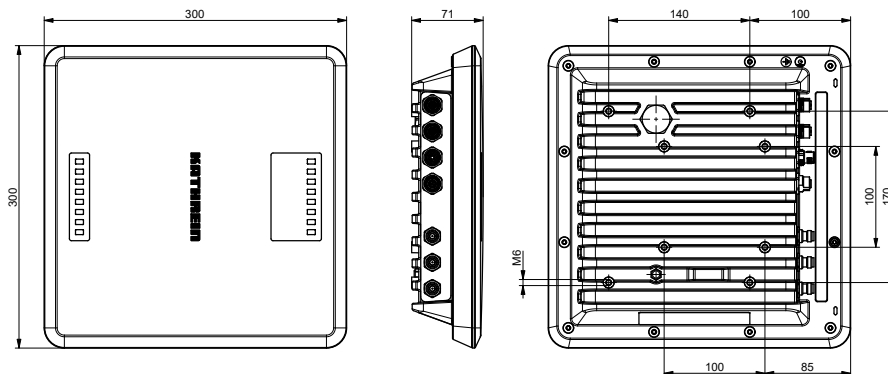
> Features

- ruggedised basic RAIN RFID reader
- 4 antenna ports
- +30 dBm port power
- @KRAI antenna support
- GPIO
- PoE+
- basic computing module
- basic LED visualisation
- IP67 outdoor use
- type approval for Europe, US and RoW

> Key Applications

- Logistics
- Industrial Automation
- Vehicle Identification
- Smart City Applications

> Dimensions [mm]



> Note

Risk of material damage!

- ▶ Make sure that the depth at which the screws are put into the housing of the reader does not exceed 10 mm (the tightening torque is 5 Nm).

> General Specifications

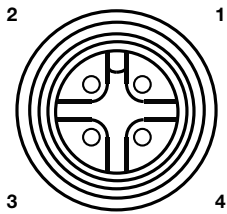
Type		ETSI Version RRU 4400	FCC Version RRU 4400
Order number		52010287	52010295
RFID			
Frequency range	[MHz]	865–868	902–928
Impedance antenna port	[Ohm]	50	
Max. TX power conducted	[dBm]	30	30
Max. TX power radiated	[ERP (ETSI)/ EIRP (FCC)]	33	36
RX sensitivity	[dBm]	typ. –80	
Number of antenna ports	[R-TNC]	4	
Standards		EN302208-2 V2.1.1, EN301489-3, EN50364, EN62368-1, EN60529, EPC Gen2 V2, UCODE DNA	FCC Part15, UL, IC, EPC Gen2 V2, UCODE DNA
Voltage			
Local supply	[VDC]	+10 to +30	
Connector		M12, A-coded, 4-pole	
Remote feed	[VDC]	PoE+ according to 802.3at (35–57) <ul style="list-style-type: none"> ▶ Make sure that the router/switch supports 30 W in the static mode. ▶ Use the cable the length of which does not exceed 100 m. ▶ Make sure to use a Cat 6 cable or a higher level cable. ▶ Note that the internal supply of GPIO-VCC-pin is not possible with PoE+. 	
Connector		M12, X-coded, 8-pole, port 1 only	
Power consumption			
Local supply	[W]	20	
Remote feed	[W]	20	
Ethernet			
Number of Ethernet ports		1	
Datarate	[Mbit/s]	10/100	
Connector		M12, X-coded, 8-pole	
@KRAI			
TX frequency	[kHz]	22	
Supply voltage (output)	[V]	5	
Max. current per port	[mA]	100	
LED visualisation			
Freely programmable		4	
Fixed		1 (power LED)	
GPIO			
Type		4 inputs, 4 outputs (double insulation possible)	
Max. input voltage	[V]	30	
Max. output voltage	[V]	30	
Max. current per output port	[mA]	500	
Max. current over all outputs	[mA]	1500	
Connector		M12, A-coded, 12-pole	

> General Specifications

RFID controller			
Processor		ARMv7-A based processor with 600 MHz	
Flash memory eMMC	[Gbyte]	4	
RAM DDR2	[Mbyte]	128	
Operating system		Linux	
Mechanical properties			
Weight	[kg]	4.00	
Degree of protection		IP67	
Operating temperature range	[°C]	-20 to +55	
Storage temperature range	[°C]	-40 to +85	
Dimensions (L x W x H)	[mm]	300 x 300 x 71	

> Power Supply

M12, A-coded, 4-pin, male

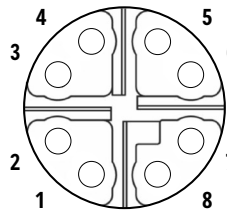


Pinout Power Supply

Pin	Allocation
1	+24 V DC
2	GND
3	GND
4	+24 V DC

> Ethernet

M12, X-coded, 8-pin, female

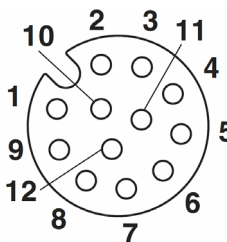


Pinout communication PoE+

Pin	Allocation
1	TX+ / PoE+1
2	TX- / PoE+1
3	RX+ / PoE+2
4	RX- / PoE+2
5	PoE+1
6	PoE+1
7	PoE+2
8	PoE+2

> GPIO

M12, A-coded, 12-pin, female



Pinout general purpose input output

Pin	Allocation	Pin	Allocation
1	OUT_CMN	7	UB
2	OUTPUT_1	8	OUTPUT_4
3	INPUT_3	9	OUTPUT_3
4	INPUT_CMN	10	OUTPUT_2
5	INPUT_1	11	INPUT_2
6	GND	12	INPUT_4