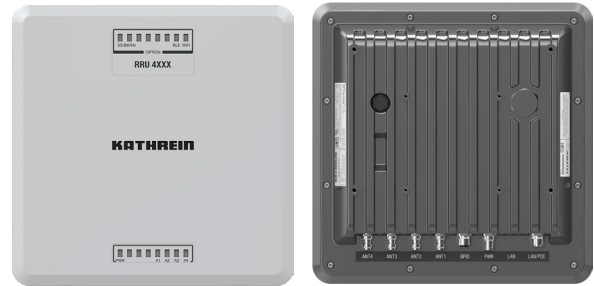


The Kathrein RRU 4000 reader family is the next generation of RAIN RFID reader and the leading IoT device for all professional AutoID solutions.

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

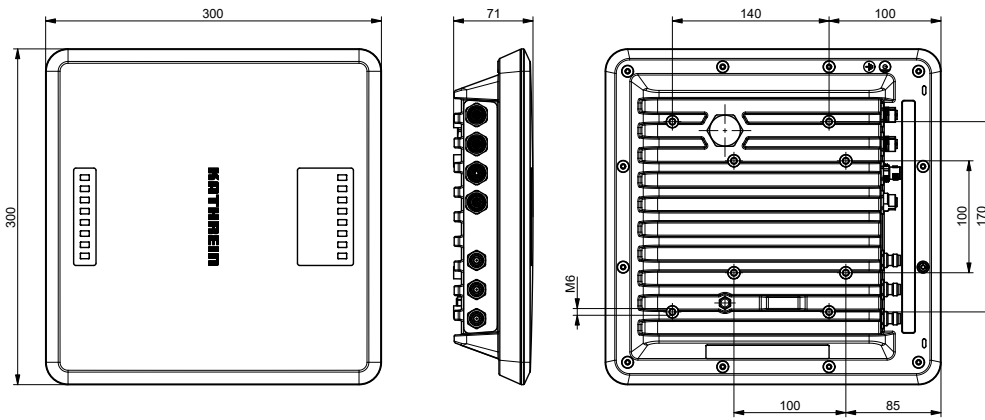
Based on the latest RFID standards, such as EPC Gen2v2 / ISO 18000-63, Kathrein RRU 4000 series support all market leading transponder chip features for security, authentication and encoding.



## > General Specifications

Type		ETSI Version, RRU 4500
Order number		52010448
<b>RFID</b>		
Frequency range	[MHz]	865–868
Impedance antenna port	[Ohm]	50
Max. TX power, conducted	[dBm]	33
Max. TX power, radiated	[ERP (ETSI)]	33
RX sensitivity	[dBm]	typ. –80
Number of antenna ports	[R-TNC]	4
<b>Voltage</b>		
In situ	[VDC]	+10 to +30
Connector		M12, A-coded, 4-pole
Remote-fed	[VDC]	PoE+ according to 802.3at (10–57) (internal supply of GPIO-VCC-pin not possible with PoE+)
Connector		M12, X-coded, 8-pole, port 1 only
<b>Power consumption</b>		
In situ	[W]	25.4
Remote-fed	[W]	25.4
<b>GPIO</b>		
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
<b>RFID controller</b>		
Processor		ARMv7-A based processor with 600 MHz
Flash memory eMMC	[Gbyte]	4
RAM DDR2	[Mbyte]	128
Operating system		Linux
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
Standards		EN301489-3, EN50364, EN62368-1, EN60529, EPC Gen2 V2, UCODE DNA

> **Dimensions [mm]**



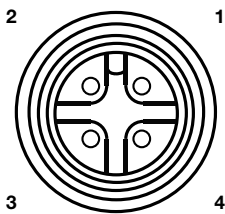
> **Note**

**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).

> **Power Supply**

M12, A-coded, 4-pin, male

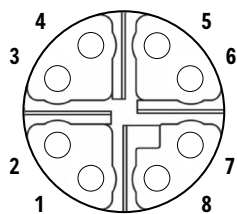


**Pinout Power Supply**

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

> **Ethernet**

M12, X-coded, 8-pin, female



**Pinout communication PoE+**

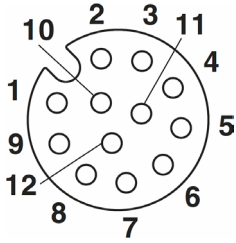
Pin	Allocation
1	TX+ / PoE+1
2	TX- / PoE+1
3	RX+ / PoE+2
4	RX- / PoE+2
5	PoE+1
6	PoE+1
7	PoE+2
8	PoE+2

**Pinout communication LAN**

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

## > GPIO

M12, A-coded, 12-pin, female



Pinout general purpose input output

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

## > Key Applications

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