

# 1-Wire 125kHz RFID Reader

Data Sheet v1.0

2016-10-24



- Radius 15,5 mm, width 7 mm
- 1 - Wire interface
- Bicolor signaling LED
- Wide application range


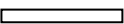


## Technical specification

Power supply	<sup>1</sup> 6,5V - 30 V DC
Average current consumption	12mA (without LED)
Green LED current	10 mA
RED LED current	10 mA
Data coding	Manchester, 64 cycles per bit
Interface (on Ruptela devices)	1 - Wire
Radio frequency	125 kHz
Card type	UNIQUE, standard <sup>2</sup> LF cards
Reading distance	~4 cm

<sup>1</sup>Must be connected to an external power source, FM1-Wire interface power output voltage is limited to 5 VDC.

<sup>2</sup>LF - low frequency

## Pinout

Yellow		Power supply +
Grey		Power supply -
White		1 - Wire DATA
Green		Green LED cathode (-)
Brown		Red LED cathode (-)

## Operation description

1-Wire RFID users should take notice, that ID written on the card is different from the ID that is sent to the server by the FM device. The read-out UID data are sent through 1-wire bus, emulating Maxim (Dallas) 1990A iButton. In case of transponders with UID longer than 4 bytes and up to 6 bytes, the oldest 2 bytes UID[4] and UID[5] are sent as 0x00 (zero).

control sum	constant value	producer's code	serial no.	code DS1990A
CRC	0x00	1 byte	4 bytes	0x01
MSB				LSB

### Physical properties

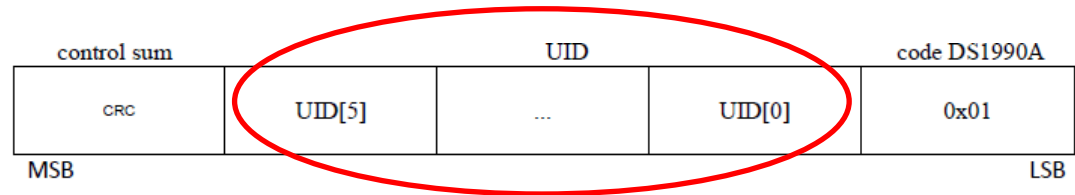
Radius, mm	15,5
Width, mm	7
Connection	1-Wire
Housing	Plastic

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Whereas for UID with length of 7 or more, are truncated to the 6 most significant UID bytes.



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