



**Find'n'Secure™**  
Tracking & Fleet Management Software

**EMBRIC**  
Information Technology (P) Ltd.

# 1-WIRE READER

## SPECIFICATIONS

Rfid125\_1wire —a reader dedicated for contactless read-out of identification data from passive transponders (cards, keyrings, etc), that are working on uniaue system. The device has a built-in bicolor led, for multipurpose adaptation.

The read-off data (manufacturer code and serial number) are send out through 1-wire bus(emulating 2 Maxim iButton) after a correct verification of parity bits.

<i>Checksum</i>	<i>Serialnumber</i>	<i>Manufacture code</i>	<i>Constant value</i>	<i>DS1990 code</i>
CRC	4 bytes	1 byte	0x00	0x01

The Leds are powered throughout built-in resistors from the inner stabilizer.

To light up the Leds connect the adequate wire to negative potential on the power supply / gnd.

## TECHNICAL DATA

POWER SUPPLY VOLTAGE	-6,5V-28V DC
RECIVER CURRENT	-15 mA (WITHOUT LED)
GREEN LED CURRENT	-10 mA
RED LED CURRENT	-10 mA
TRANSPONDER FREQUENCY	-125 KHZ
DATA CODING	-MANCHESTER, 64 CYCLES PER BIT or (HID ProxCard avaiable on request]
READING DISTANCE	-4 cm
1 WIRE COMMAND SUPPORT	-0x33 (0x0F) - READ ROM   0xF0- SEARCH ROM



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## WIRES

YELLOW	— Power supply + (6,5V-28V)
GRAY	— Power supply — (ground)
WHITE	— 1-Wire data
GREEN	— Cathode GREEN LED
BROWN	— Cathode RED LED
PINK (optional)	— TAG in range (active low)

## Driver Identification ibutton vs RFID

Driver identification in Find'n'Secure software can be done either by using Ibutton reader and key or by using RFID reader and card.

**ibutton** : It is a rugged data carrier that serves as an electronic registration number for automatic identification. Data is transferred serially through the 1-Wire® protocol, which requires only a single data lead and a ground return. Every ibutton is factory lasered with a guaranteed unique 64-bit registration number that allows for absolute traceability. The durable stainless-steel iButton package is highly resistant to environmental hazards such as dirt, moisture, and shock. Its compact coin-shaped profile is self aligning with mating receptacles, allowing the ibutton to be used easily by human operators. Accessories enable the iButton to be mounted on almost any object, including containers, pallets, and bags.

It is magnetic and the driver will put his key on the reader before start of journey and remove at the end of the journey. You can also configure it if you want such that vehicle will start only when the authorized driver puts his key on the reader. ibutton is the ideal solution for driver identification.

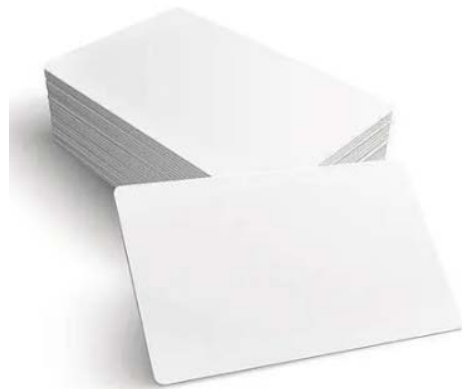
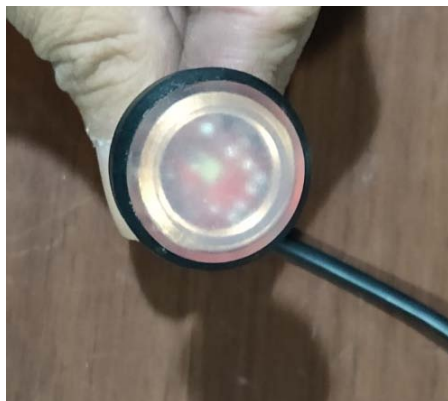




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**RFID** : RFID (radio frequency identification) is a form of wireless communication that incorporates the use of electromagnetic or electrostatic coupling in the radio frequency portion of the electromagnetic spectrum to uniquely identify an object, animal or person. The read range for RFID tags varies based on factors including type of tag, type of reader, RFID frequency, and interference in the surrounding environment or from other RFID tags and readers.



The driver will tap the RFID card on the reader at the start of journey and **he will have to remember to tap at the end of the journey**. Secondly authorized driving is not possible with RFID. Thirdly it is not as durable as ibutton solution. Lastly this is a more expensive solution as compared to ibutton.

**So to sum up Driver identification using ibutton is strongly recommended as compared to driver identification using RFID.**