

# Magnetic Card Reader

## 1 Introduction

### 1.1 About the Functionality

The magnetic card reader allows users to read a magnetic card ID for driver registration.

This feature description applies to tracking devices with the latest firmware version.

You can get the newest firmware and configurator from our documentation website: [doc.ruptela.it](http://doc.ruptela.it)

### 1.2 Legal Information

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### 1.3 Compatibility

The alcohol sensor is compatible with the following devices with the newest firmware version:

- HCV5
- LCV5
- Pro5
- FM-Tco4 HCV
- FM-Tco4 LCV
- FM-Pro4
- FM-Eco4 RS T

## 1.4 Contact Information

### General enquiries

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## 1.5 Document Changelog

Version	Date	Modification
<b>2.0</b>	2020-07-16	Updated: Connection schematics. Updated: Compatible devices list. Updated: Manual design and construction.
<b>2.1</b>	2020-08-05	Updated: Connection schematics. Updated: Compatible devices list.

## 1.6 Notations

The following notations are used in this document to highlight important information:

### **Bold text**

Used to indicate user interface elements or for emphasis.

### *Italic text*

Used to indicate items that belong to a list and can be selected.

### **Note**



Used to highlight important information or special conditions.

### **Caution**

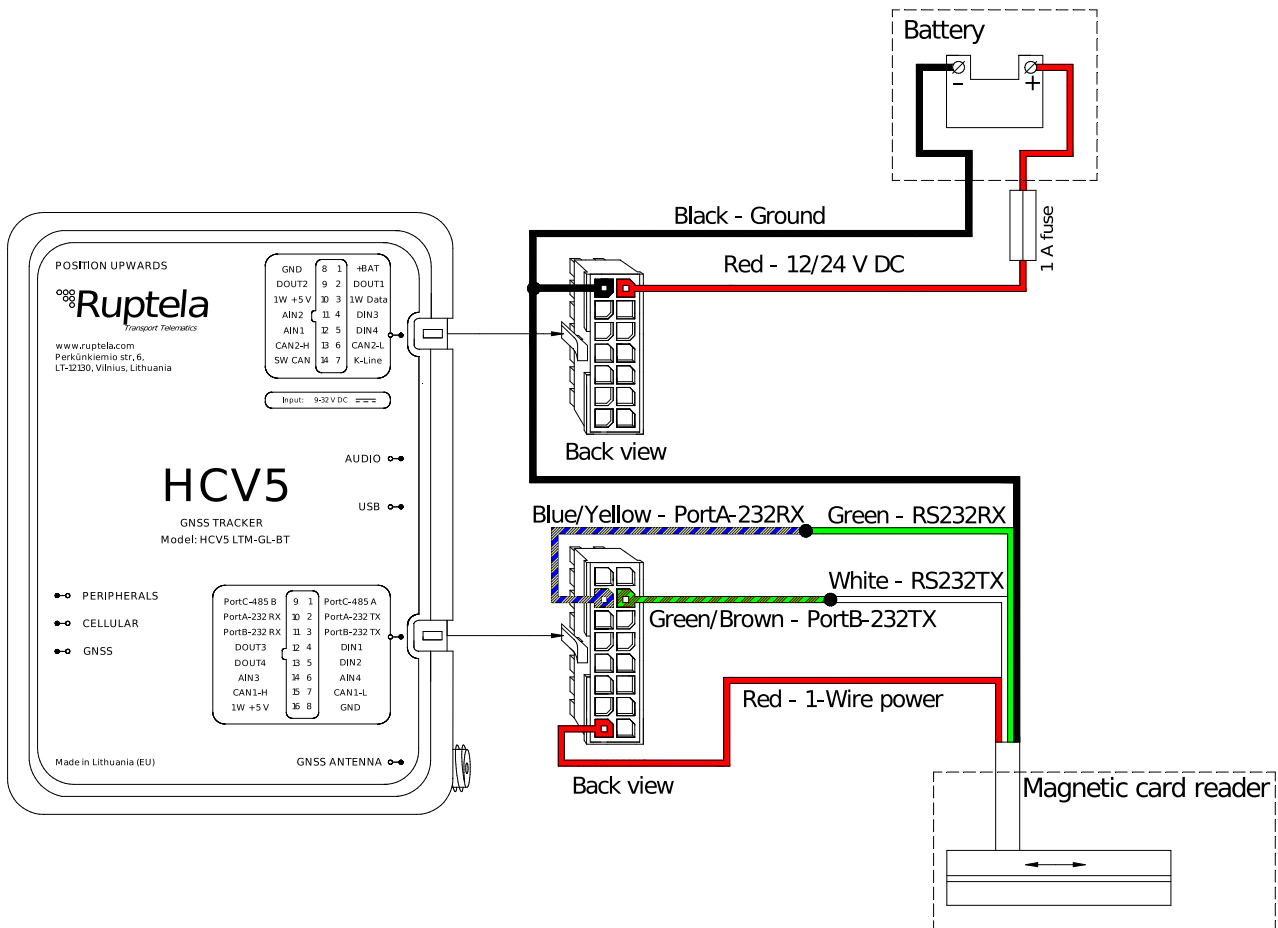


Used to mark actions that require caution when handling the product.

## 2 Connection

### 2.1 Connection to 5<sup>th</sup> Gen Advanced Family Devices

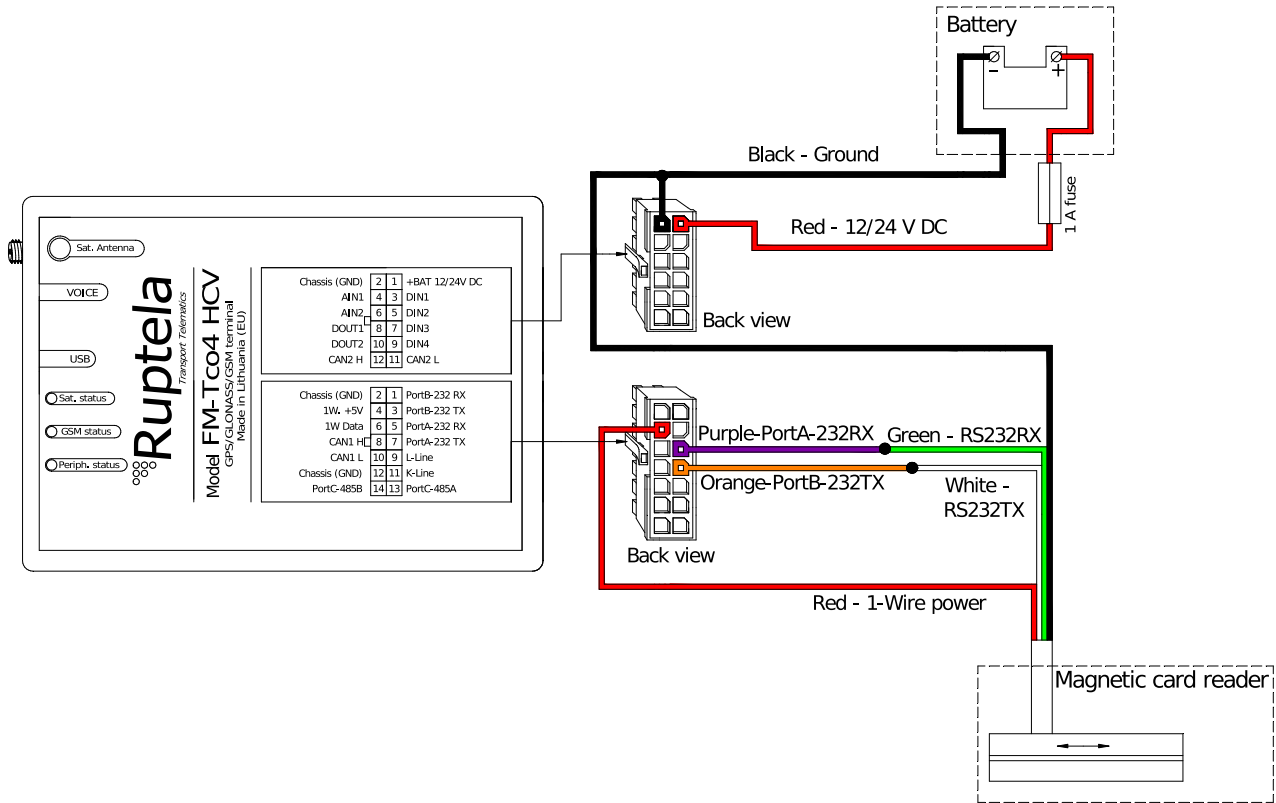
Connect the magnetic card reader to your tracking device as follows (Port A is used in this schematic):



Alternatively, RS232TX and RS232RX wires can be connected to Port B (16 pin connector, pin 3 and 11, pink/green wire, red/cyan wires).

## 2.2 Connection to 4<sup>th</sup> Gen Advanced Family devices

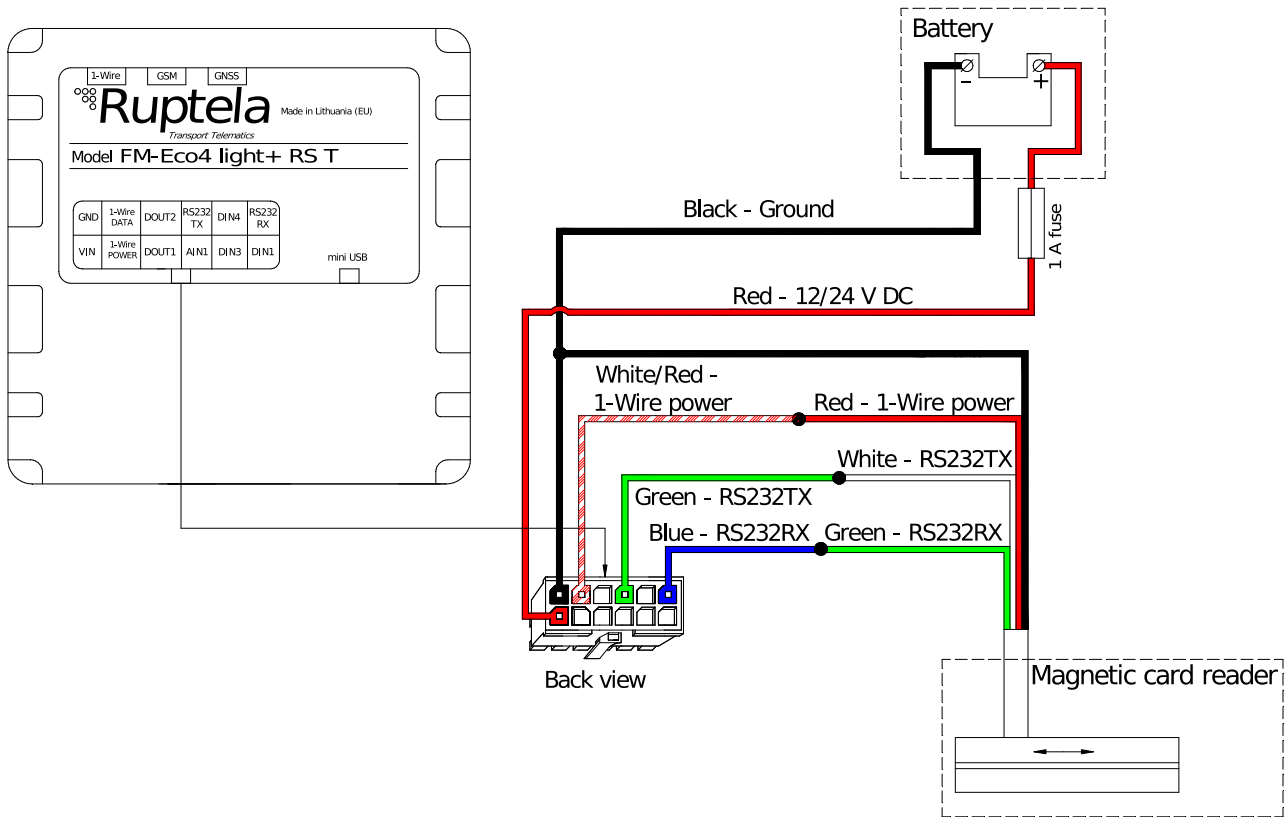
Connect the magnetic card reader to your tracking device as follows (Port A is used in this schematic):



Alternatively, RS232TX and RS232RX wires can be connected to Port B (14 pin connector, pin 3 and 1, orange and yellow wires).

## 2.3 Connection to FM-Eco4 RS T device

Connect the magnetic card reader to your tracking device as follows:



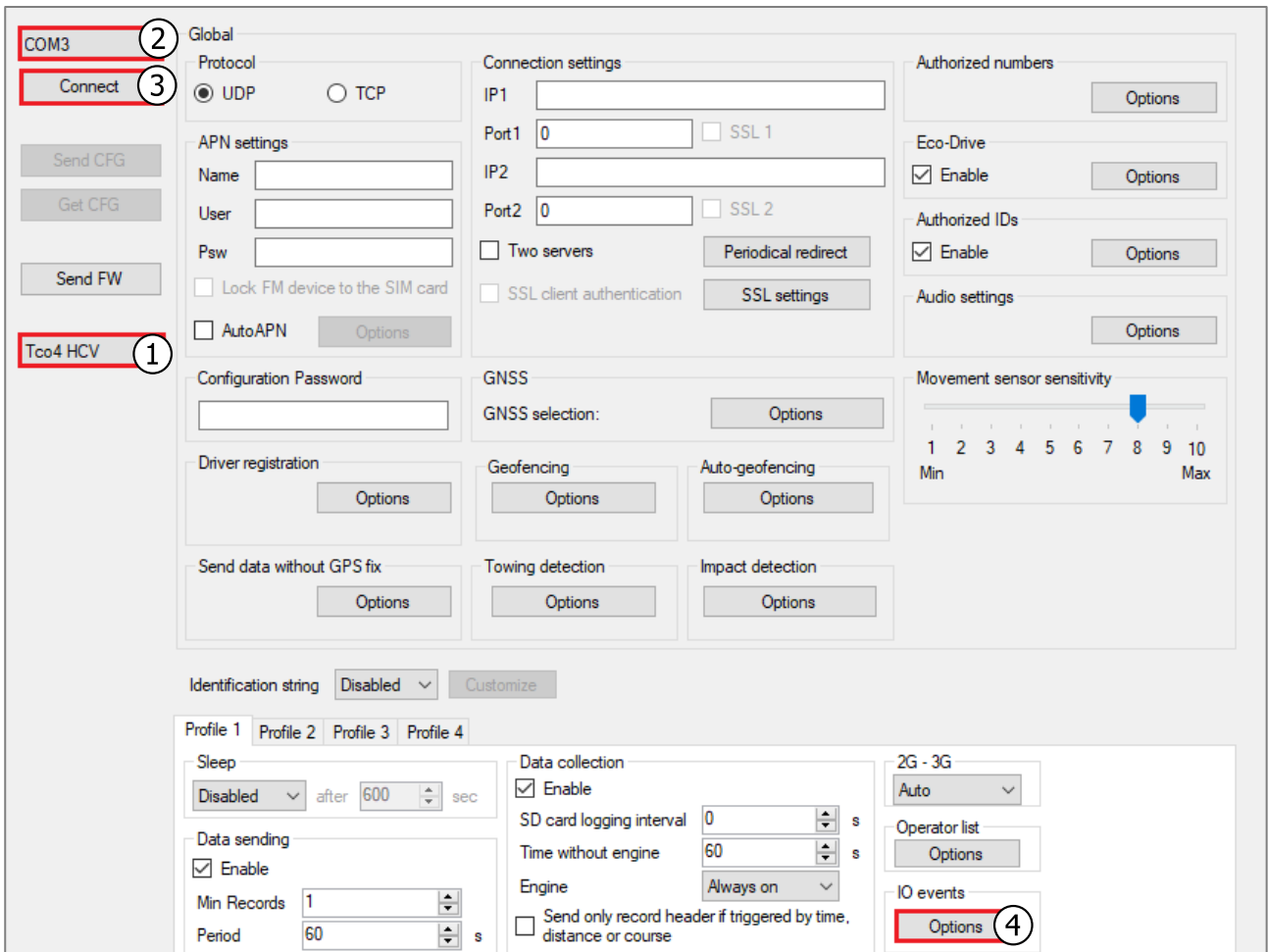
# 3 Configuration

**i** This functionality requires the use of the advanced configurator.

## 3.1 Starting the Configuration

To start the configuration, follow these steps:

1. Open the advanced configurator. Select your tracking device.
2. Select the COM port to which your device is connected.
3. Click **Connect**.
4. Click the **Options** button in the **IO events** section to open the **IO Settings** window.



## 3.2 Configuring the Magnetic Card Reader

Follow these steps to configure the magnetic card reader:

1. Tick the **Send I/O data with v1.1 protocol** checkbox (not applicable for the 5<sup>th</sup> gen devices).
2. In the **Interfaces** section select the port, to which the magnetic card reader is connected (*PortA* or *PortB*).
3. Select *Magnetic card reader* from the drop-down list.
4. Click the **Config** button to open the **Magnetic card reader** window.
5. From the **Track selection** drop-down list select which track the device should read.
6. Define how many starting symbols should be skipped by setting the **Offset** field value.

Each track has specific offset limitations:



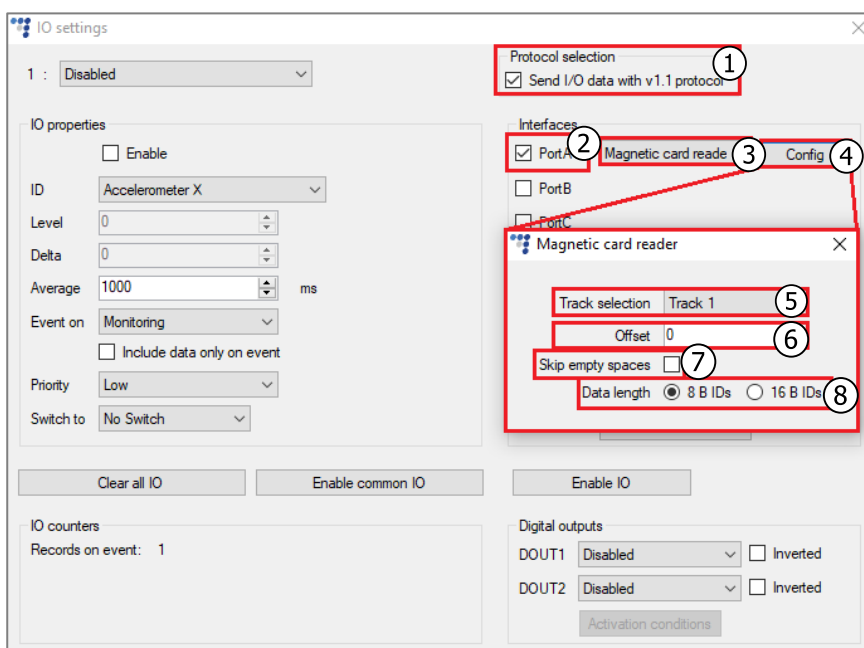
- *Track1*: Offset can be from 0 up to 78 symbols.
- *Track2*: Offset can be from 0 up to 39 symbols.
- *Track3*: Offset can be from 0 up to 108 symbols.

0 is set by default.

7. If required, tick the **Skip empty spaces** checkbox.
8. In **Data Length** select how many bytes of data should be read from the selected track. 8 bytes is selected by default.



If you change the data length, all entries in the Authorized IDs list will be deleted.



9. Select an empty parameter slot.
10. Enable the slot by ticking **Enable**.
11. In the **ID** section select *Magnetic card 8 B id* or *Magnetic card 16 B id* from the drop-down list. The selection depends on which data length you have selected.
12. Set **Event on** to *Monitoring*.

The screenshot shows the 'IO settings' window with the following configuration:

- IO 1:** Magnetic card 8 B id (9)
- IO properties:**
  - Enable (10)
  - ID: Magnetic card 8 B id (11)
  - Level: 0
  - Delta: 0
  - Average: 0 ms
  - Event on: Monitoring (12)
  - Include data only on event
  - Priority: Low
  - Switch to: No Switch
- Protocol selection:**
  - Send I/O data with v1.1 protocol
- Interfaces:**
  - PortA: Magnetic card reader (Config)
  - PortB
  - PortC
  - K-Line
  - CAN
  - CAN2
  - 1-Wire
  - DIN3 mode: Positive mode
  - DIN4 mode: Positive mode
- Buttons:** Clear all IO, Enable common IO, Enable IO
- IO counters:** Records on event: 1
- Digital outputs:**
  - DOUT1: Disabled  Inverted
  - DOUT2: Disabled  Inverted
  - Activation conditions



### 3.3 Finishing the Configuration

To finish the configuration, close the **IO settings** windows. Click **Send CFG** to send the configuration to the device.

The screenshot displays the Ruptela Configurator software interface. At the top, there is a menu bar with 'File' and 'Tools'. Below it, a 'Configuration file information' section shows details like 'Configuration source: Configurator', 'Target device: n/a', 'FM device FW version: n/a', 'CFG Tag: [input field]', and 'Advanced Configurator version: n/a'. The Ruptela logo is in the top right corner.

The main configuration area is divided into several sections:

- Global:** Includes a dropdown menu for 'COM3', a 'Disconnect' button, and a 'Send CFG' button (highlighted with a red box). Other buttons include 'Get CFG', 'Send FW', and a dropdown for 'Tco4 HCV'.
- Protocol:** Radio buttons for 'UDP' (selected) and 'TCP'.
- APN settings:** Fields for 'Name', 'User', and 'Psw', with checkboxes for 'Lock FM device to the SIM card' and 'AutoAPN'.
- Connection settings:** Fields for 'IP1', 'Port1', 'IP2', and 'Port2', with checkboxes for 'SSL 1', 'SSL 2', 'Two servers', and 'SSL client authentication'. Includes buttons for 'Periodical redirect' and 'SSL settings'.
- Configuration Password:** A text input field.
- Driver registration:** An 'Options' button.
- GNSS:** A 'GNSS selection:' field with an 'Options' button.
- Geofencing:** An 'Options' button.
- Auto-geofencing:** An 'Options' button.
- Authorized numbers:** An 'Options' button.
- Eco-Drive:** A checked 'Enable' checkbox with an 'Options' button.
- Authorized IDs:** A checked 'Enable' checkbox with an 'Options' button.
- Audio settings:** An 'Options' button.
- Movement sensor sensitivity:** A slider ranging from 1 (Min) to 10 (Max), with a blue marker at 8.