



**ID Access 1500 V4, OEM-HF-R845-ET-IDT-V4**  
**13.56 MHz OEM RFID Reader**  
**Automatic Data Acquisition from Mifare Classic**  
**with Relay, LED and Buzzer control**

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## 1 Introduction

### 1.1 Additional Command to Switch between the Short Function and Long Function

Please define a command for this purpose.

### 1.2 Automatic Function of the RFID Reader, Short Function

The reader automatically detects a Mifare Classic ISO14443A type tag.

Then it sends the UID + CR + LF to the Ethernet interface.

The settings of the WizNet interface IC determines the target address and port.

The telegram contains this data:

- 8 or 14 ASCII characters for the UID
- 0x0D (CR)
- 0x0A (LF)

### 1.3 Additional Function of the RFID Reader

Control and time the LED colours red, blue and green.

Control and time the Relay closing contact.

Control and time the Buzzer signal.

Please see chapter 3 for details.

### 1.4 Important Note

**The devices are set to DHCP. Please configure them to a fixed IP address suitable for your network.**

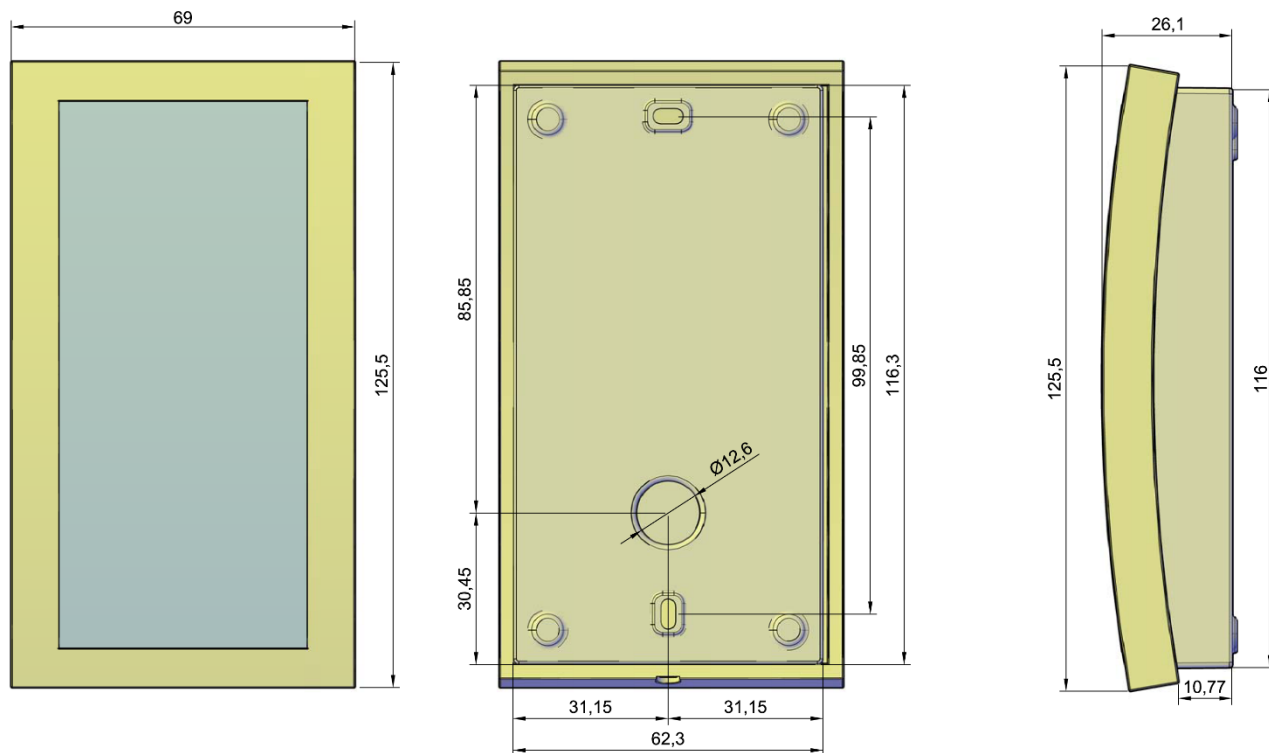
### 1.5 Overview of the Initial Operation

- Open the housing (see chapter 2.2)
- Disconnect the antenna and connect Ethernet with PoE or Ethernet and power supply (see chapter 2.4).
- If necessary, connect the relay (NO contact, NO).
- Make the network settings (own IP address of the device, IP address and destination port of the server). The easiest way to do this is with the 'S2E ConfigTool\_V1.4.exe' software because it can find the device in the network.
- Attach the antenna again. (see chapter 3)
- Close the housing (see chapter 2.3)
- Set up the device in your management software (e.g. Athletics from Terra Software).

## 2 Installation

### 2.1 Dimensional Drawing

Table housing, drawing with dimensions and mounting holes.



### 2.2 Open the Housing

Access the pin from below:



Remote it completely:



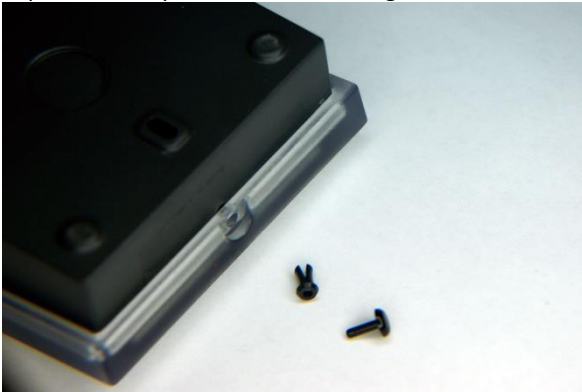
Pull out the pinhead with your finger:



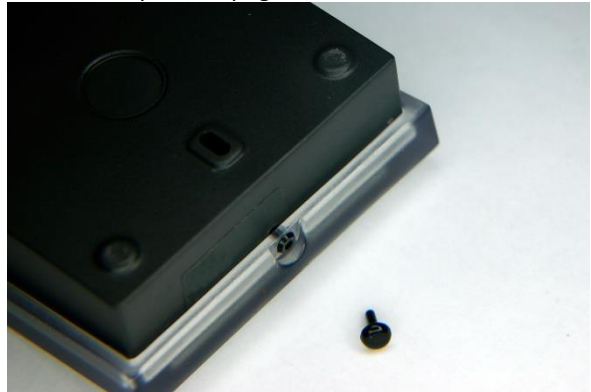
Now you can lift off the cover.

## 2.3 Close the Housing

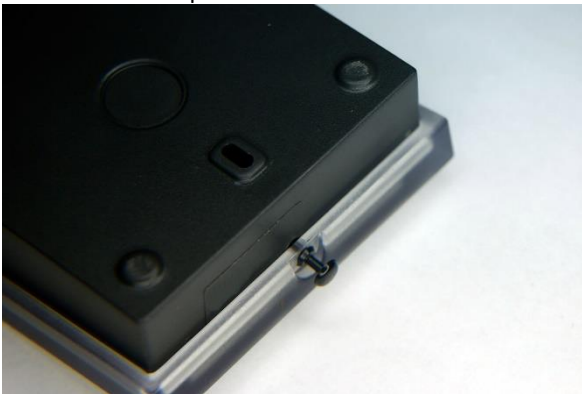
Separate both parts before re-fitting:



Re-fit the expansion peg first:



Put in the center pin:

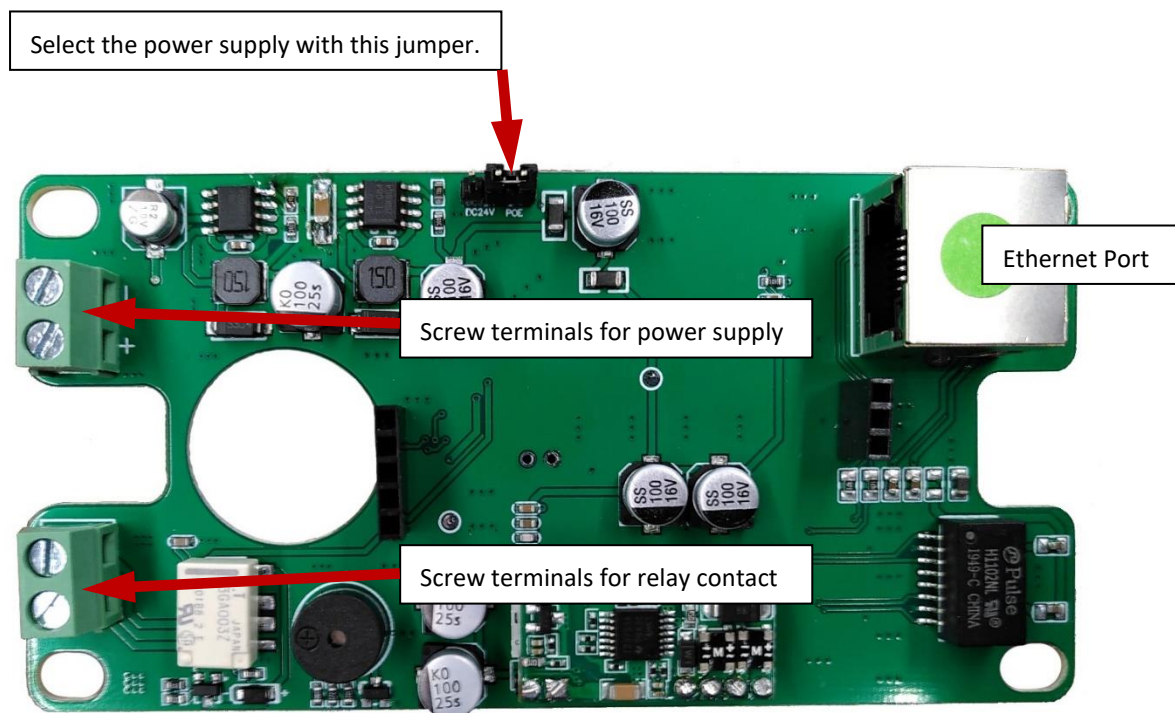


Press down the center pin completely:



## 2.4 Electrical Connection

Remove the antenna PCB to gain access to the Ethernet port.



### 3 Initial Operation

Configuration of the WizNet Ethernet Client via Webinterface or with S2E ConfigTool\_V1.4.exe

Tab “Basic Settings”

S2E ConfigTool (V1.4)

192.168.10.107 Search Apply Settings Upload Firmware Reset Exit

Serial to Ethernet

IP: 192.168.10.226 Name: FS100S

Basic Settings Port1

Product Information

Device Type: FS100S

Serial Number: 20230927-EC9F0D4034E6

Firmwar Version: V1.8

Firmwar Status: Normal

Network Settings

☒ Use the Follow IP Address

☐ Get IP Address from DHCP Server

IP Address: 192.168.10.226

Subnet Mask: 255.255.255.0

Gateway: 192.168.10.10

DNS Server: 217.151.144.10

Other Settings

MAC Address: EC:9F:0D:40:34:E6

Device Name: FS100S

User Name: admin

Password: \*\*\*\*\*

HTTP Port: 80

☐ Echo In AT Mode

☐ Show Debug Messages

©ConfigTool

- 1: Select the desired network interface of your PC from the drop-down menu.
- 2: Click on [Search], now the device you want to set should be listed.
- 3: Select the desired device to set.
- 4: Click on “Use the Follow IP Address” and the desired Ethernet parameters of the device.
- 5: Device Name: Here you can give the device a name that is helpful to you.  
User Name/Password: this is the user name and password for access via the web interface. You can use this to block access. In addition, you can disguise access to the web interface with an HTTP port that differs from the standard.
- 6: Please do not forget to save changed settings with [Apply Settings].

## Tab "Port 1"

S2E ConfigTool (V1.4)

192.168.10.107 Search Apply Settings Upload Firmware Reset Exit

Serial to Ethernet  
IP: 192.168.10.226 Name: FS100S

Basic Settings Port1

Baud Rate: 115200  
Data/Stop/Parity: 8 1 NONE  
Flow Control: NONE  
Socket Type: TCP Client  
Modbus TCP to : NONE  
Remote Host: 192.168.10.107  
Remote Port: 8234  
Local Port: 8000  
Data Packing Time: 10 ms (0~60000)  
Data Packing Size: 0 byte (0~2048)  
Inactivity Time: 0 ms (0~60000)  
Reconnection Time: 1000 ms (0~60000)  
Keep Alive Time: 1 5s (0~255)  
Connect TCP Server when 0. Power On  
Auto Message (The First Data Packet from Device): 0. No message  
☐ Request Admin Password  
☒ Clear Data Buffer when TCP Connected

- 1: Enter your server address and port here.
- 2: This is port to send commands to this RFID device.
- 3: In case you prefer DHCP, you can configure the device to automatically send a message for identification.
- 4: This will prevent random data to be sent.

In case you need to change settings, please do not forget to save changed settings with [Apply Settings].

**Important Note!**

Please do not change the values "Baud Rate", "Data/Stop/Parity", "Flow Control", "Socket Type".

These settings are important for the internal communication between the RFID module and the Ethernet interface module.



## 4 Control Relay, LED and Buzzer

All data is ASCII encoded.

### 4.1 Overview

Send a command string as plain contents of an IP package to the device.

The command sent must be composed of 6 or 12 characters:

RRRBBB or  
RRRBBBLLLTTT

The data fields in Detail

RRR Relay activation time (steps of 100 ms, decimal value)  
BBB Buzzer activation time (steps of 100 ms, decimal value)  
LLL RGB colour of LED  
TTT LED activation time (steps of 100 ms, decimal value)

### 4.2 LED Colour Coding

000	OFF
001	blue
010	green
011	cyan
100	red
101	violet
110	yellow
111	white

### 4.3 Example Telegrams

#### Access Granted

020005010005

- ⇒ Activate relay for 2000 ms
- ⇒ Activate buzzer for 500 ms
- ⇒ Set LED to green...
- ⇒ ...for 500 ms

#### Access Denied

000010100025

- ⇒ Do not activate relay
- ⇒ Activate buzzer for 1000 ms
- ⇒ Set LED to red...
- ⇒ ...for 2500 ms

## 5 Revision History

Version	Date	Notes
1.0	2024-05-17	Initial draft
1.2	2024-06-13	Configuration of Ethernet interface added
1.3	2024-06-14	RFID Tag Access Information updated (Key B), Antenna changed (with Ferrite), Changed to TCP Client
1.4	2024-07-08	Keys update, Timing Command update, Read Memory Blocks changed
1.5	2024-11-15	Chapter Sequence changed, Overview of the Initial Operation added, Type Designations updated, Read Memory Blocks removed (this is device V5)