Installation and User Guide RFIDreader (RFIDM00; V2.2 and later)

Description

The RFIDreader (RFIDM00) is integrated into a bracket for mounting of an eMH1. The bracket is also used for winding up the cable. The RFIDreader (RFIDM00) can be connected to our standard eMH1 variants (use with special versions must be checked individually).
The RFIDreader (RFIDM00) provides an easy way to install an electronic offline-identification, using ID-TAGs.
The identification is done via the UID of an ID-TAG or via the GIDs stored on the ID-TAG.
In case of a positive identification, the EVCC is enabled by an electrical isolated digital output.
UIDs and GIDs can be programmed via the TEACH-IN tag, by a preprogrammed SMART-UPDATE tag or by the integrated RS485 interface using the control software UI-RFIDM00.
The control software UI-RFIDM00 is available on our website http://www.abl-sursum.com.

UID:	Unique Identifier = unchangeable unique identification number
GID:	Group Identifier = modifiable group identification number (ABL format)
ID-TAG:	MIFARE® Ultralight tag (1 x tag UID, 2 x GIDs)
TEACH-IN tag:	ID-TAG especially provided for the “TEACH IN”
SMART-UPDATE tag:	MIFARE® CLASSIC 1k tag (1 x tag UID, 84 x stored UIDs, 6 x GIDs)

Technical data

Rated voltage	12V= (8 … 28V=)
Rated current	500mA
Ambient temperature (storage)	-30 … 85°C
Ambient temperature (operation)	-25 … 50°C
Relative humidity	10 … 90% no condensation
IP-degree	IP64
Enclosure	Bracket for mounting an eMH1
Power supply (X5,X6)	Wire H05V-K0.75 with sleeves (50cm, twisted)
Impulse output (X3,X4)	Wire H05V-K0.75 with sleeves (50cm, twisted) 8…230V AC + DC, max. 100mA
Toggle output (X2)	Pin header MOLEX MINIFIT JR 5566-02A, Length of wire max. 1m 8…230V AC + DC, max. 100mA
RS485-Interface	Pin header MOLEX MINIFIT JR 5566-04A 38400Bd, 8 data bit, 1 stop bit, no parity

Declaration of conformity

CE

The RFIDreader (RFIDM00) is marked with the CE-tag
Corresponding declaration of conformity is available on request at
ABL SURSUM Bayerische Elektrozubehör GmbH & Co. KG
or as download at www.abl-sursum.com

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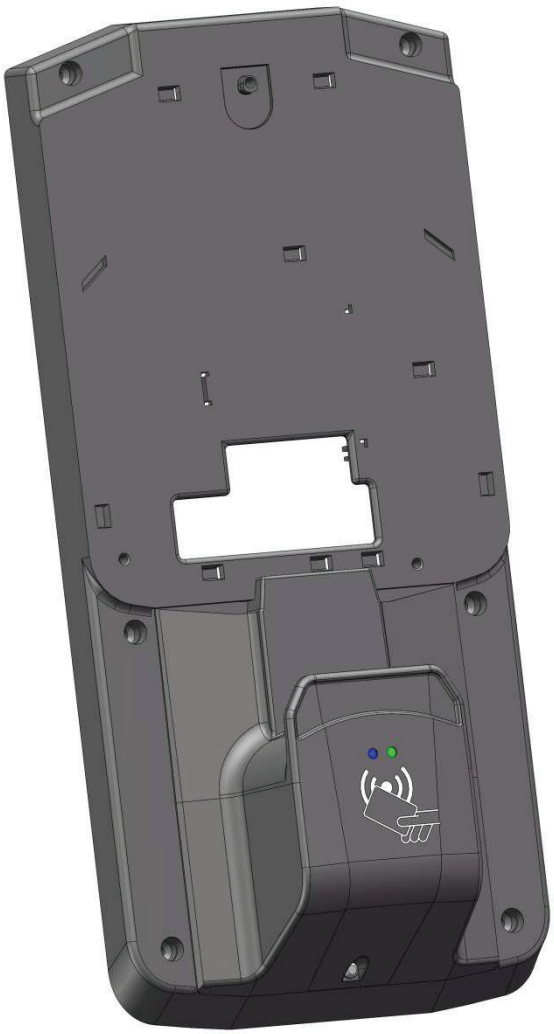
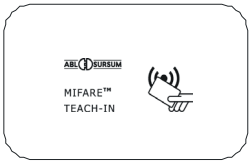
Scope of delivery

Included with the RFIDreader (RFIDM00) are:

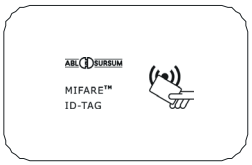
item number	Quantity	Description
8 0261 09	1	Holder with RFID electronic
8 0260 00	1	Bracket
8 1607 01	1	Screw for plastic material 4 x 2 mm
8 0178 59	1	TEACH-IN tag card
8 0178 69	5	ID-TAG card
8 0178 98	6	Plug for Bracket
8 1191 00	6	Spax screw 5 x 60 mm
8 1191 01	6	Anchor 8 x 40 mm
8 1191 02	3	Screw for plastic material 5 x 20 mm



RFIDM00



8 0178 59



8 0178 69

8 0178 98

8 1191 00

8 1191 01

8 1191 02

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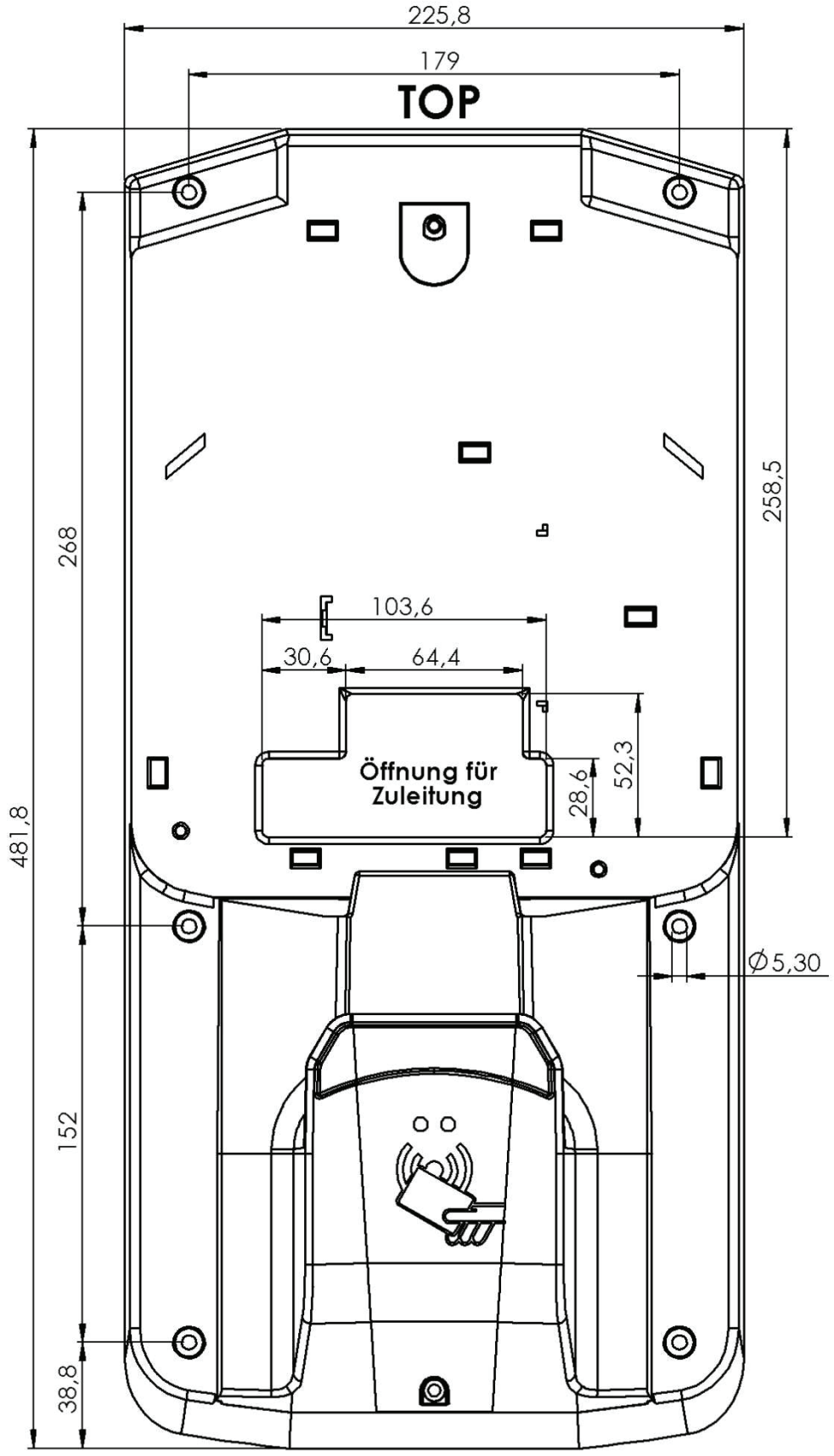
Dimensions



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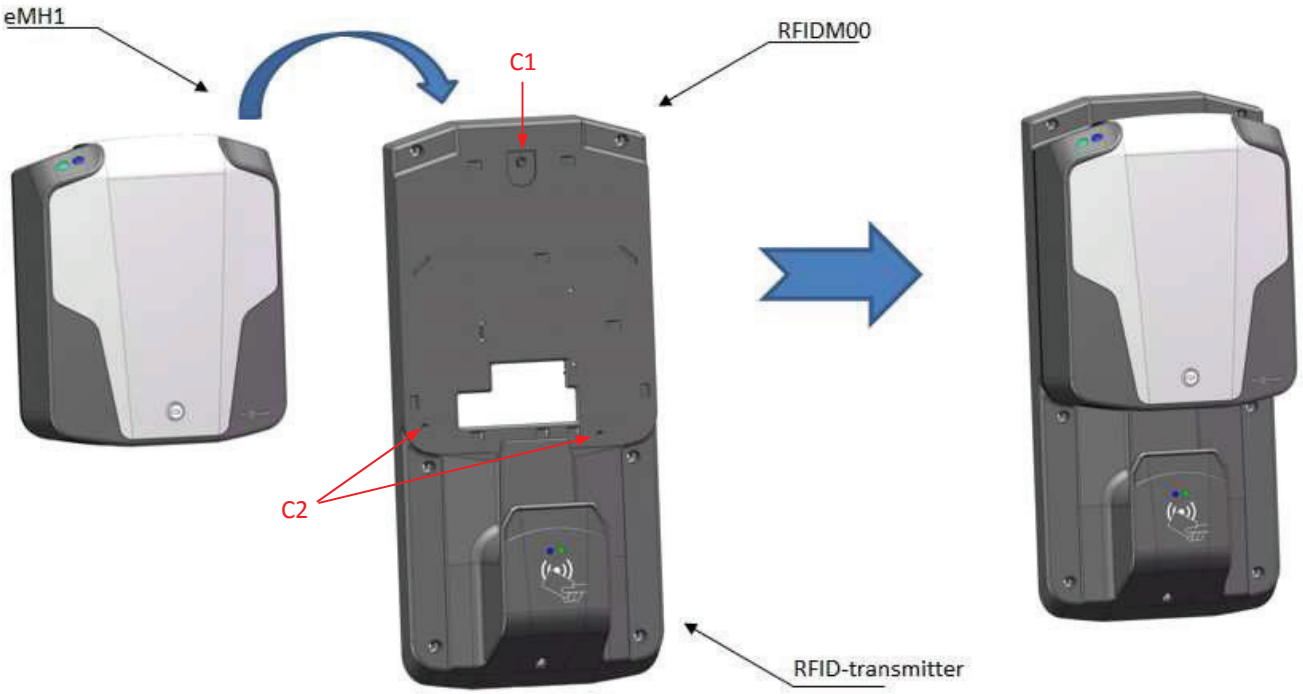
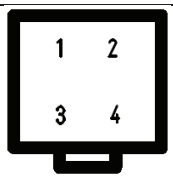
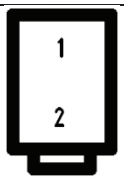
Installation



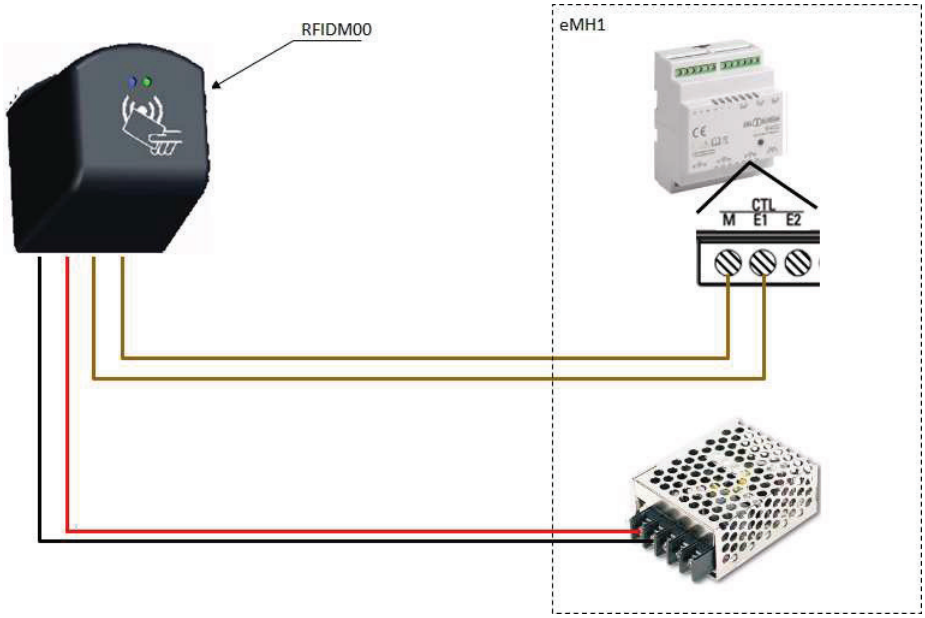
The installation must be performed by a trained specialist!
For mounting the RFIDM00 a flat surface with 226cm width and 482cm height is required.
The mounting height (floor → lower edge of RFIDM00) should be between 120cm and 140cm.
The 6 mounting holes are to be executed on the basis of the above dimensions.
The eMH1 is to be attached with the 3 screws 8 02 1191 to the RFIDM00:
- Turn a screw hand-tight in C1.
- Push the eMH1 on this attachment.
- Align the eMH1 and tighten it to the RFIDM00 with the remaining two screws at C2.
Insert the cables of the RFIDM00 in the eMH1 and clamp them according to the wiring example.
Insert the electrical supply cable through the RFIDM00 into the eMH1 and assemble the RFIDM00 with the 6 screws 8 1191 00. Seal the screw holes then with the plug 8 0178 98.

The electrical supply is to be connected by a trained specialist, according to the operating manual of the eMH1!
The safety instructions in the operating manual of eMH1 must be observed!
Failure to follow these safety precautions may result in damage to the unit or the connected Consumers or danger to life and limb!

Connectors

Connector	Assignment			Function
X1		1 2 3 4	not connected RS485_B RS485_M RS485_A	RS485-interface (connected via a 100Ω resistor to M)
X2		1 2	24 23	Switched on for 10s (default setting) on each positive identification
X3 X4	Brown wire Brown wire	14 13		Switched on for 10s (default setting) on each positive identification
X5 X6	Red wire Black wire	L+ M		Power supply

Examples for implementation



Identification

Identification by	Programmed in	Quantity	Programmed by
UID	EEPROM	84	TEACH-IN tag, SMART-UPDATE tag or RS485 interface
GID	EEPROM	6	SMART-UPDATE tag or RS485 interface

A positive identification of an ID-TAG takes place, when:

1. The UID of the ID-TAG matches with an entry in the EEPROM -or-
2. At least one of the two GIDs, programmed on the ID-TAG matches with an entry in the EEPROM

Remark: Programming the GIDs on an ID-TAG requires the RFIDwriter RFIDM01!

Functions

Function	Description	Indicator
Power-on	Blue LED indicating firmware revision of RFIDM00 as flash code while booting (green LED on)	Booting Boot failed
Ready	Module searching for ID-TAGs	*green LED flashes each 5s*
Identification	Attach ID-TAG (Distance max. 30mm) 	Positive identification Access denied
Teach-in (Programming an UID in EEPROM)	1. Attach TEACH-IN tag  2. Attach ID-TAG (within 10s!)  Remarks: A TEACH-IN tag must have been programmed first, using the control software UI-RFIDM00. If all UID-cells of the EEPROM are used already, the EEPROM must be erased first.	Ready for „TEACH-IN“ UID of tag programmed UID already programmed EEPROM full
Erasing all UIDs in the EEPROM	Using TEACH-IN tag: - Switch of power-supply - Attach TEACH-IN tag to RFIDM00 - Switch on power-supply - Wait until blue LED is permanently on	
Programming a complete set of UID- and GID in EEPROM	Attach SMART-UPDATE tag to RFIDM00 until green LED is switched on  Remarks: A SMART-UPDATE tag must be programmed with the RFIDwriter (RFIDM01) first. The RFIDreader is rebooting automatically after reading is completed.	Reading SMART-UPDATE tag Reading completed Failure RFID tag
Delete/Modify UIDs	Using control software UI-RFIDM00	
Delete/Modify GIDs	Using control software UI-RFIDM00	