Technical data sheet

XMP-TMC3260 / XMP-TMC3280

MULTI-FUNCTION TERMINAL

The multi-function terminal generation XMP-TMC3200 is designed for access control, time recording, time management and intrusion systems.

Each terminal has a SAM socket to fulfill the permanently growing security requirements of the market.

Via a serial interface (RS485) the card readers are connected to the door control units and communicating through an encrypted protocol called SecuCrypt® or OSDP™ V2.

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1 Technical data

Description	**XMP-TMC32xx**
Processor	ARM 180 MHz
Program memory	1 MB Flash, 136 KB RAM
Power supply	12 to 24 V DC ±10%
Power consumption	13,8 V → 140 to 245 mA 27,6 V → 70 to 115 mA
Interface	RS485 (2 wire)
Baud rate	9600 or 19200
Data communication	SecuCrypt®, OSDP™ V2 and BPA/9
Tamper contact	Yes
Buzzer	Yes (configurable → melodies)
Status display	Configurable color display (3,5 inch) and 4x2 LEDs (individually configurable)
SAM socket	Yes
Bluetooth- module	Optional
DIP switch	Yes
PIN-Code	Yes (illuminated)
Function keys	4 (illuminated) with 8 sub-functions each
PC housing (UL94 V0)	Yes
Protection class IP54	Yes
Environmental conditions	Housing temperature in operation IP54: -20 to 60°C (-4 to 140°F) Storage: -20 to 75°C (-4 to 167°F) 5 to 90% relative humidity
Dimensions	See chapter „Order numbers“

1.1 Housing colors

Reader	**Silver (similar to RAL 9006)**	**White (similar to 9003)**	**Black (similar to 9005)**
XMP-TMC3260	Yes	Yes	Yes
XMP-TMC3280	Yes	Yes	Yes

1.2 Service – Cleaning – Disposal

Defective boards must be disposed properly. Batteries and accumulators belong to the hazardous waste. The packaging can be reused or disposed of.

Dispose of green filling material in biowaste.

The reader should only be cleaned with a duster, brush or vacuum cleaner.

If the housing is heavily soiled, a mild, non-aggressive detergent can be used.

1.3 Protection type

Protection type	IP54

- When installed IP54
- The maximum protection class IP54 depends on the sealing against wall.
- Cable entries and mounting holes may need to be sealed with a sealant.
- Suitable sealants (such as silicone) should be selected according to the ambient conditions.

2 Order numbers

2.1 OEM multi-function terminal – XMP-TMC3260

Order number	Description	Dimension
 XMP-TMC3260	*MIFARE Classic® & MIFARE® DESFire® EV1/EV2/EV3 multi-function terminal with color display, PIN code keyboard and 4 function keys for connection to door controller (Color: black; protection class: IP54)*	173 x 101 x 31 mm 173 x 101 x 41 mm (incl. Mounting frame)
 XMP-TMC3260-S	*MIFARE Classic® & MIFARE® DESFire® EV1/EV2/EV3 multi-function terminal with color display, PIN code keyboard and 4 function keys for connection to door controller (Color: silver; protection class: IP54)*	173 x 101 x 31 mm 173 x 101 x 41 mm (incl. Mounting frame)
 XMP-TMC3260-W	*MIFARE Classic® & MIFARE® DESFire® EV1/EV2/EV3 multi-function terminal with color display, PIN code keyboard and 4 function keys for connection to door controller (Color: white; protection class: IP54)*	173 x 101 x 31 mm 173 x 101 x 41 mm (incl. Mounting frame)
 XMP-TMC3260-BLE	*MIFARE Classic® & MIFARE® DESFire® EV1/EV2/EV3 multi-function terminal with integrated Bluetooth module, color display, PIN code keyboard and 4 function keys for connection to door controller (Color: black; protection class: IP54)*	173 x 101 x 31 mm 173 x 101 x 41 mm (incl. Mounting frame)
 XMP-TMC3260-BLE-S	*MIFARE Classic® & MIFARE® DESFire® EV1/EV2/EV3 multi-function terminal with integrated Bluetooth module, color display, PIN code keyboard and 4 function keys for connection to door controller (Color: silver; protection class: IP54)*	173 x 101 x 31 mm 173 x 101 x 41 mm (incl. Mounting frame)

 XMP-TMC3260-BLE-W	*MIFARE Classic® & MIFARE® DESFire® EV1/EV2/EV3 multi-function terminal with integrated Bluetooth module, color display, PIN code keyboard and 4 function keys for connection to door controller (Color: white; protection class: IP54)*	173 x 101 x 31 mm 173 x 101 x 41 mm (incl. Mounting frame)

2.2 Software licenses - XMP-TMC3260-F*

Description	Order number
Support of CIPURSE™ (SAM)	XMP-TMC3260-F1
Save MIFARE Classic® and MIFARE® DESFire® EV1/EV2/EV3 keys and SecuCrypt® custom key in SAM	XMP-TMC3260-F2
Support of identifier A1 to F0 (e.g. time & attendance, business trip etc.) and memo function for function keys	XMP-TMC3260-F3
Bluetooth/NFC support - XMP2GO®	XMP-TMC3260-F4-1
Time management functions: 1 balance display, 2 to 4 balance displays, transmission of reasons for absence, memo function according to a schedule	XMP-TMC3260-F5

2.3 Multi-function terminal – XMP-TMC3280

Order number	Description	Dimension
 XMP-TMC3280	*Multi-function terminal without read and write function with color display, PIN code keyboard and 4 function keys for connection to access controller (Color: black; protection class IP54).* *Requires one of the following licenses:* - *XMP-TMC3280-F1 - Support of LEGIC® prime & advant* - *XMP-TMC3280-F5 - Support of MIFARE Classic® & MIFARE® DESFire® EV1/EV2/EV3* - *XMP-TMC3280-F6 - Support of HID iCLASS®*	173 x 101 x 31 mm 173 x 101 x 41 mm (incl. Mounting frame)
 XMP-TMC3280-S	*Multi-function terminal without read and write function with color display, PIN code keyboard and 4 function keys for connection to access controller (Color: silver; protection class IP54).* *Requires one of the following licenses:* - *XMP-TMC3280-F1 - Support of LEGIC® prime & advant* - *XMP-TMC3280-F5 - Support of MIFARE Classic® & MIFARE® DESFire® EV1/EV2/EV3* - *XMP-TMC3280-F6 - Support of HID iCLASS®*	173 x 101 x 31 mm 173 x 101 x 41 mm (incl. Mounting frame)
 XMP-TMC3280-W	*Multi-function terminal without read and write function with color display, PIN code keyboard and 4 function keys for connection to access controller (Color: white; protection class IP54).* *Requires one of the following licenses:* - *XMP-TMC3280-F1 - Support of LEGIC® prime & advant* - *XMP-TMC3280-F5 - Support of MIFARE Classic® & MIFARE® DESFire® EV1/EV2/EV3* - *XMP-TMC3280-F6 - Support of HID iCLASS®*	173 x 101 x 31 mm 173 x 101 x 41 mm (incl. Mounting frame)

2.4 Software licenses - XMP-TMC3280-F*

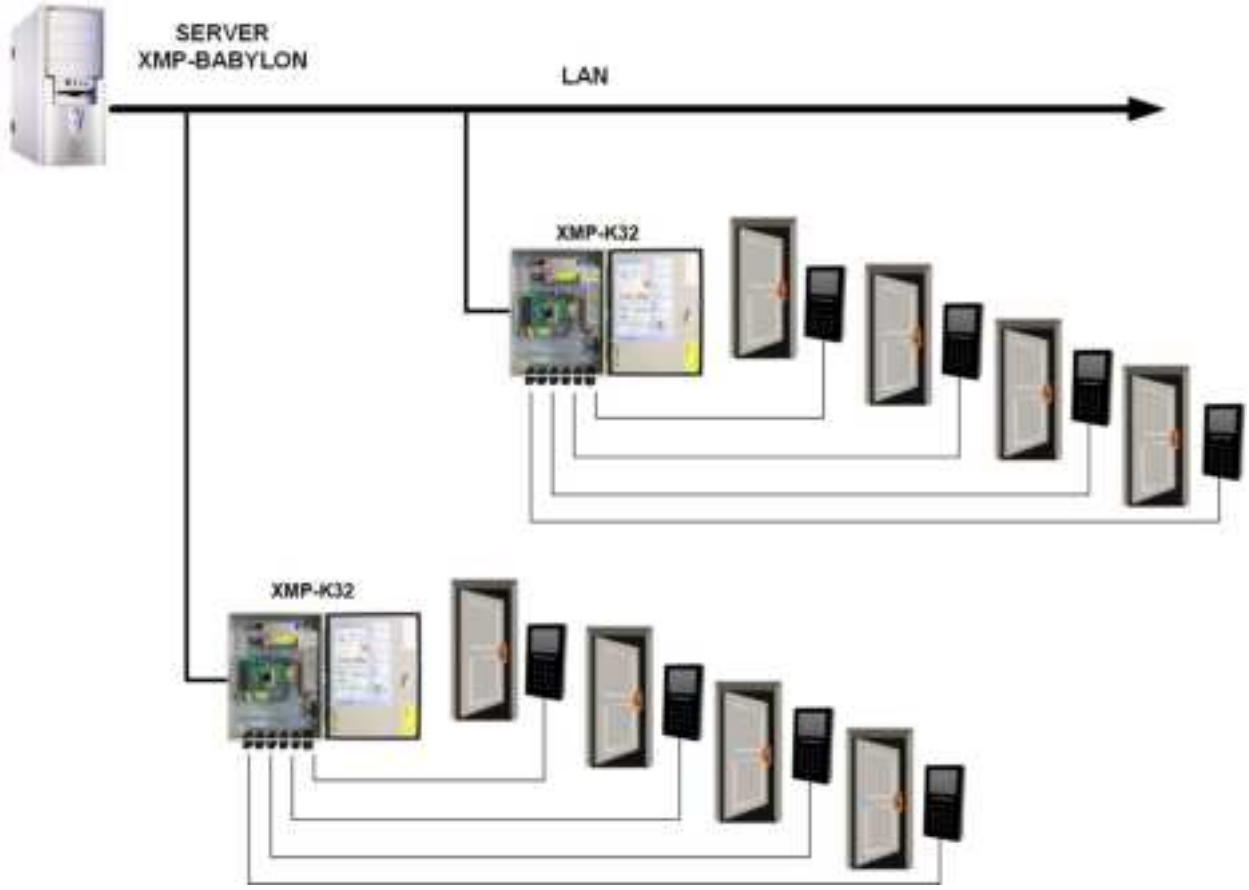
Description	Order number
Support of LEGIC® prime & advant	XMP-TMC3280-F1
SAM support for SecuCrypt® custom keys	XMP-TMC3280-F2
Support of identifier A1 to F0 (e.g. time & attendance, business trip etc.) and memo function for function keys	XMP-TMC3280-F3
Support of Bluetooth/NFC	XMP-TMC3280-F4
Support of MIFARE Classic® & MIFARE® DESFire® EV1/EV2/EV3	XMP-TMC3280-F5
Support of HID iCLASS®	XMP-TMC3280-F6
Support of CIPURSE™ (SAM)	XMP-TMC3280-F7
Time management functions: 1 balance display, 2 to 4 balance displays, transmission of reasons for absence, memo function according to a schedule	XMP-TMC3280-F8

2.5 Mounting frame

Order number	Description	Dimension
XMP-TMC32-RF1	*Mounting frame for TMC32xx, black*	166 x 94 x 30 mm
XMP-TMC32-RF1-S	*Mounting frame for TMC32xx, silver*	166 x 94 x 30 mm
XMP-TMC32-RF1-W	*Mounting frame for TMC32xx, white*	166 x 94 x 30 mm

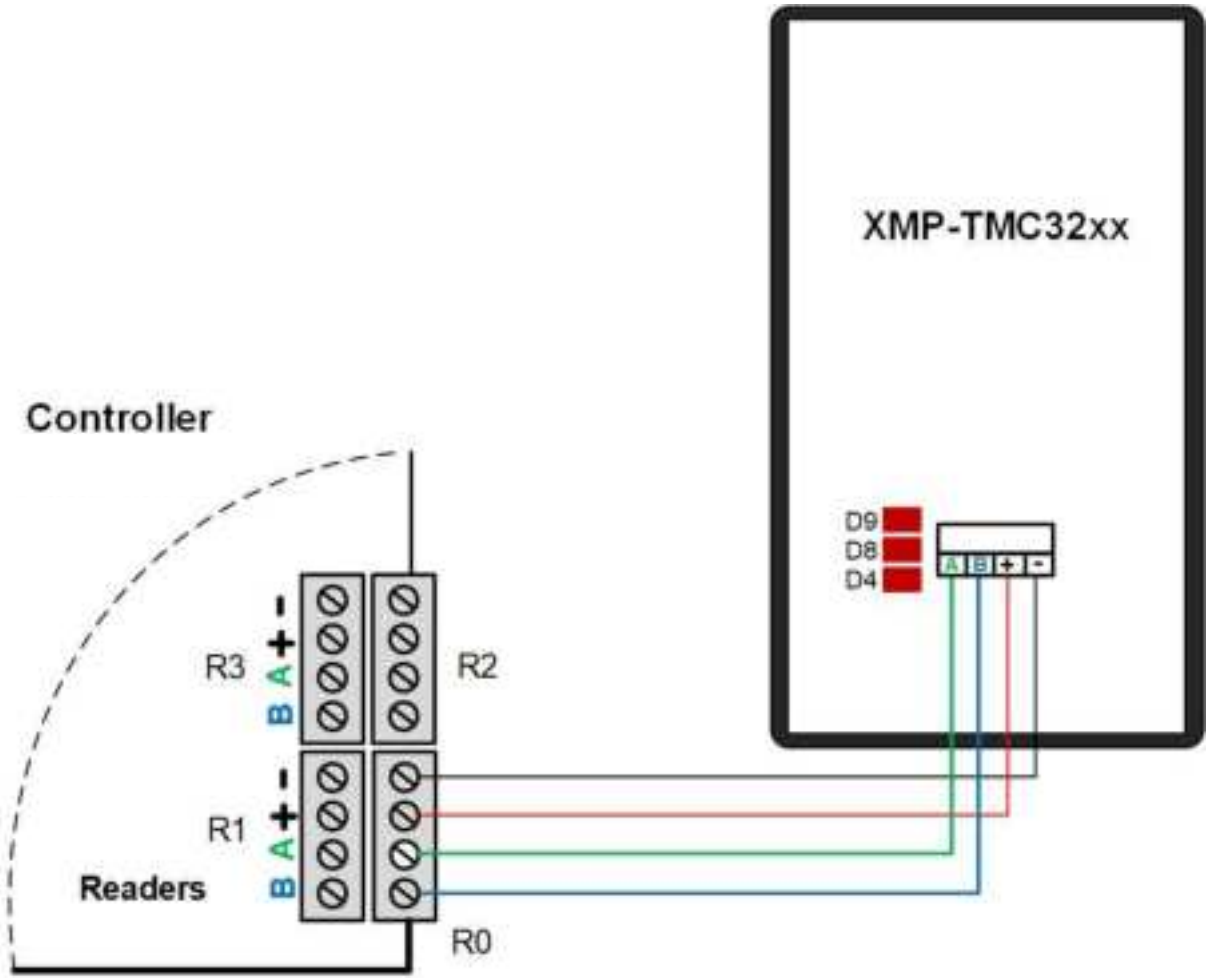
3 System overview

Up to 2048 controllers with 2, 4 or 8 readers can be connected to one server.



Defective circuit boards must be disposed in competent manner. Old batteries and accumulators are hazardous waste. The package can be used again or can be disposed. The green filling material can be disposed as bio waste.

3.1 Connection reader to controller



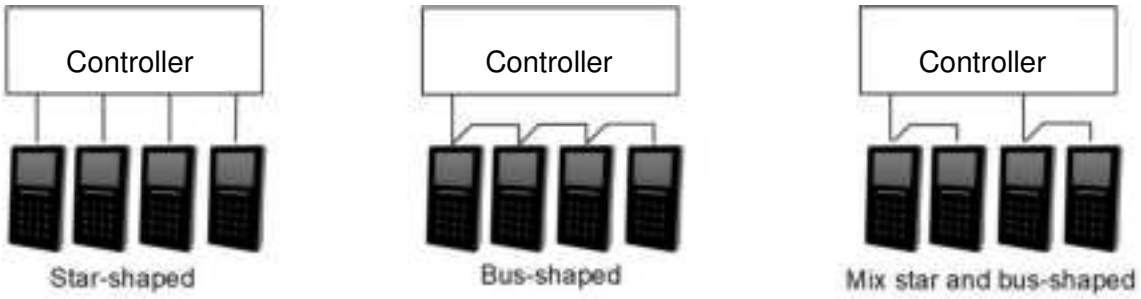
The power supply can be provided by the XMP-K12 / XMP-K32 (recommendation).

Following distances should be observed:

- Maximum distance between controller and reader 100 m with 12VDC and 200m with 24VDC.
- Cable type: 2x2x0.8mm (shielded)

For Additional information please see the access controller documentations.

The connection can be realized star- or bus-shaped (Note fuse values!).



4 Meaning of dip switch SW1

Dip switch 	Description
SW1-1	**SecuCrypt® and BPA/9:** Bit 1, 2 und 3 for hardware address (Adr. 0-7) **OSDP™ V2:** Bit 1, 2, 3 und 4 for hardware address (Adr. 0-15)
SW1-2	
SW1-3	
SW1-4	
SW1-5	Activate BPA/9 7 Bit protocol (not in combination with SW1-6)
SW1-6	Activate OSDP™ V2 (Crypto) protocol (not in combination with SW1-5)
SW1-7	Addressing via software (W3XMPCRP)
SW1-8	Boot loader-Mode active (Service only)

The card reader can be addressed via the software.

The card reader can be addressed via configuration card.

The baud rate is determined automatically (autosensing).

The reader address is set on the micro-switches 1-4 in binary form as follows:

SecuCrypt® or BPA/9 7 Bit

Dip 1	Dip 2	Dip 3	Address
Off	Off	Off	**0**
On	Off	Off	**1**
Off	**On**	Off	**2**
On	**On**	Off	**3**
Off	Off	**On**	**4**
On	Off	**On**	**5**
Off	**On**	**On**	**6**
On	**On**	**On**	**7**

OSDP™ V2 (Crypto)

Dip 1	Dip 2	Dip 3	Dip 4	Address
Off	Off	Off	Off	**0**
On	Off	Off	Off	**1**
Off	**On**	Off	Off	**2**
On	**On**	Off	Off	**3**
Off	Off	**On**	Off	**4**
On	Off	**On**	Off	**5**
Off	**On**	**On**	Off	**6**
On	**On**	**On**	Off	**7**
Off	Off	Off	**On**	**8**
On	Off	Off	**On**	**9**
Off	**On**	Off	**On**	**10**
On	**On**	Off	**On**	**11**
Off	Off	**On**	**On**	**12**
On	Off	**On**	**On**	**13**
Off	**On**	**On**	**On**	**14**
On	**On**	**On**	**On**	**15**

5 Meaning of LEDs

LED	Description
Left (2x RGB LED)	Free usage
Left-center (2x RGB LED)	Free usage
Right-center (2x RGB LED)	Free usage
Right (2x RGB LED)	Free usage
Reverse side D4	SAM-Card activated
Reverse side D8	Communication TXD
Reverse side D9	Communication RXD

6 SAM Socket (Secure Access Module)

For customer-specific solutions, the card reader provides a SAM socket.

For detailed information, please contact the customer support of AUTEC Gesellschaft für Automationstechnik mbH.

7 Details of reading technology

7.1 13,56 MHz - MIFARE Classic® & MIFARE® DESFire® EV1/EV2/EV3

The XMP-TMC3260 and XMP-TMC3280 reads the serial number or memory information's of MIFARE® DESFire® EV1/EV2/EV3 and MIFARE Classic® badges. In case of MIFARE Classic® badges the serial number (UID) will be transmitted as decimal value (e.g. *40004403886360 by 4-byte UID*) or hexadecimal (*e.g. 800A345CB1986A by 7-byte UID*) and MIFARE® DESFire® EV1/EV2 badges as 7-byte hexadecimal (e.g. *801B76A1726F04*) in 14 digits. The factory settings read the serial number.

The special parameter settings will be downloaded via the utility program ***W3XMPCRP*** or **U3XMPCRP**.

As communication protocol the **SecuCrypt®2.0** or **OSDO™ V2 Crypto** is recommended.

Recommended card type: ISO cards

The XMP-TMC3280 needs the license XMP-TMC3280-F5.

7.2 13,56 MHz - LEGIC® prime & advant

The XMP-TMC3280 reads the serial number (UID) or segments information's of LEGIC® prime and advent badges. Project specific settings like CRC check, segment number, search-string and so on must be defined by the installer. Maybe the need of SAM cards is required.

The special parameter settings will be downloaded via the utility program ***W3XMPCRP*** or **U3XMPCRP**.

As communication protocol the **SecuCrypt®2.0** or **OSDO™ V2 Crypto** is recommended.

Recommended card type: ISO cards

The XMP-TMC3280 needs the license XMP-TMC3280-F1.

7.3 13,56 MHz – HID iCLASS®

The XMP-TMC3280 reads the serial number (e.g. E012FFFB00CED8) or the badge number of HID iCLASS® cards, which are encoded for Corporate 1000 (35 Bit format),

The special parameter settings will be downloaded via the utility program ***W3XMPCRP*** or **U3XMPCRP**.

As communication protocol the **SecuCrypt®2.0** or **OSDO™ V2 Crypto** is recommended.

Recommended card type: ISO cards

The XMP-TMC3280 needs the license XMP-TMC3280-F6.

7.4 Reading distances

MIFARE Classic®	MIFARE® DESFire® EV1/EV2/EV3	LEGIC® prime	LEGIC® advant	HID iCLASS®
0 to 6 cm	0 to 6 cm	0 to 6 cm	0 to 6 cm	0 to 3 cm

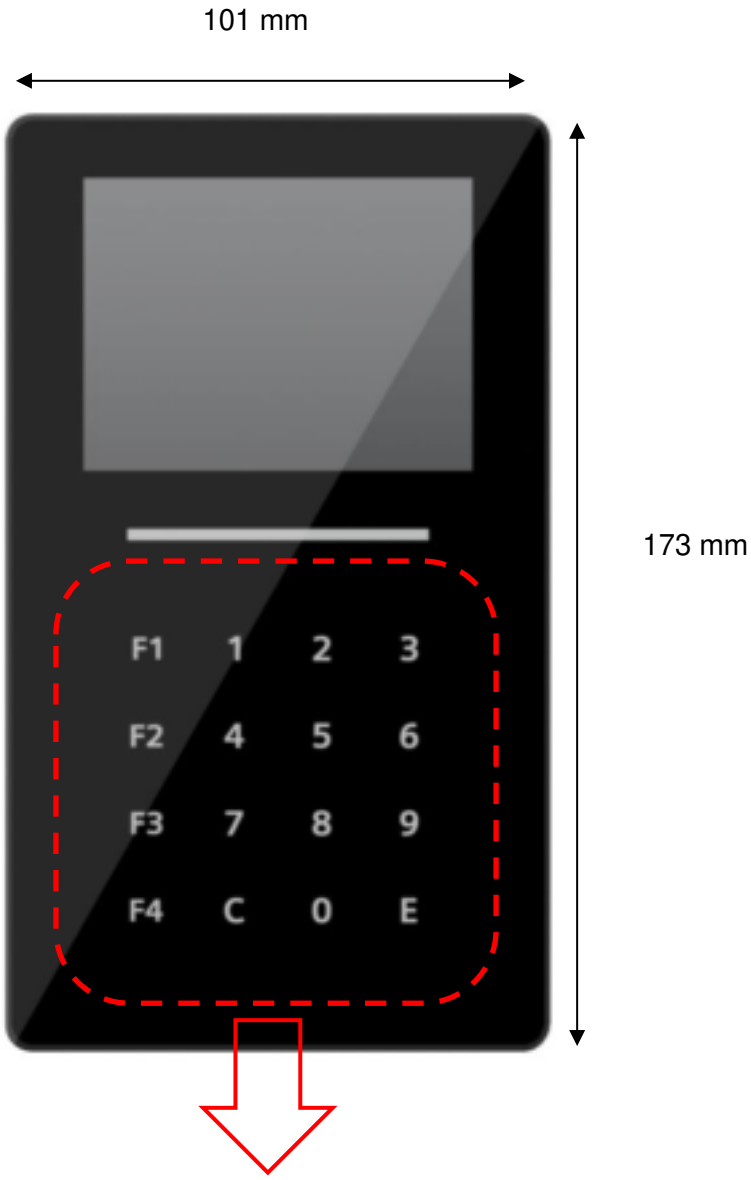
Metal parts in a distance of 120 mm can reduce the reading distance

The distance between two installed card readers should be minimum 20 cm, because of the fact, that the electro-magnetic fields of the readers - concerning the reading distances - affect each other in disadvantageous way.

The reading distance depending on the encryption, quality and antenna of the RFID card or fob.

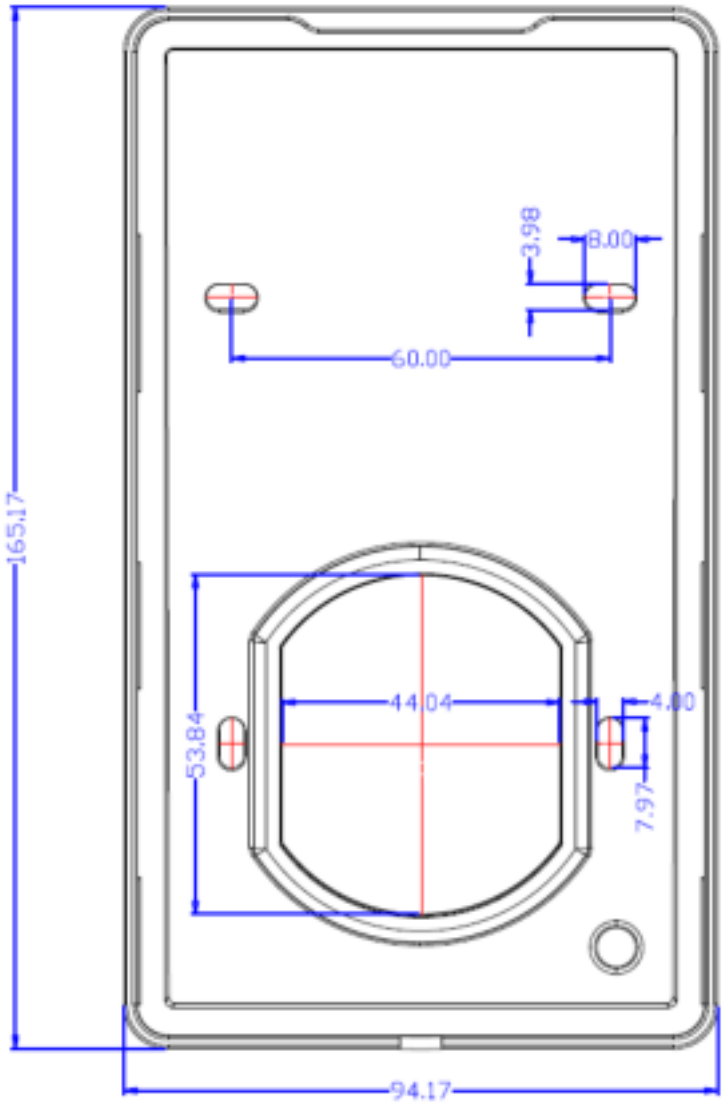
8 Reader view / Mounting frame

8.1 RFID field and dimensions



The red line shows the RFID field

8.2 Mounting frame XMP-TMC32-RF1



9 Compliances

FCC INFORMATION (U.S.A.)
You are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that of which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Warning Statement:
[Any] changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
FCC Radio Frequency Exposure:
WARNING: To comply with RF exposure limits the users must keep separation distance from the device, except during the identification and operation process at the device (e.g. PIN-code input), which must be performed as described.

FCC ID: 2A6AAXMP3260
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device must not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC RF Radiation Exposure Statement:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This product is in conformity with the following EC directives, including all applicable amendments:
- 2014/53/EU (Radio Equipment Directive)

This product is in conformity with the listed UK statutory requirements and designated standards:
Electromagnetic Compatibility Regulations 2016

10 Document History

Version	Date	Description
V1.0	08.10.2020	First release
V1.1	30.03.2021	Update dimensions
V1.2	31.03.2021	Correction dimensions
V1.3	07.12.2022	RAL colors
V1.4	22.04.2024	Minor changes
V1.5	06.06.2024	FCC relevant disclaimer added

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Revision: April 2024 - This issue replaces all previous issues. Availability, errors and specifications are subject to change without notice.

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Since mistakes - in spite of all efforts - cannot be avoided completely, we appreciate hints at any time.

The installation recommendations gained in this manual presume the most favorable general conditions. AUTEC gives no guarantee for the perfect function of an installation in system foreign environments.

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