AUTEC
Gesellschaft für Automationstechnik mbH

Technical data sheet

XMP-TMC3050 / XMP-TMC3060
XMP-TMC3070 / XMP-TMC3080

ACCESS READER

The card reader type XMP-TMC30xx is designed for use in access control applications in conjunction with the management system XMP BABYLON. The readers read passive proximity badges with the standard RFID technology in the frequency range 13,56 MHz (MIFARE Classic®, MIFARE® DESFire® EV1 + EV2, LEGIC® prime & advant, HID iCLASS® and CIPURSE™ (SAM)).

The readers are connected via RS485 to the access control units XMP-K6EX, XMP-K12, XMP-K12EX, XMP-K32SX, XMP-K32EX, XMP-K32, XMP-CMM, XMP-CMM-EX or as second card reader to the stand-alone terminal XMP-TMC3500/3600. The data transmission between reader and controller is secured with an AES-256-GCM (SecuCrypt® 2.0) or AES-128 encryption (OSDP™ V2 Crypto)

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1 Technical data

Description	XMP-TMC30xx
Processor	ARM 180 MHz
Program memory	1 MB Flash 136 KB RAM
Power supply	12 to 24 V DC ±10%
Power consumption	78 to 397 mA with 12V DC 36 to 176 mA with 24V DC (depending on LED lighting)
Interface	RS485 (2 Wire)
Baud rate	9600 or 19200
Tamper contact	Yes
Buzzer	Yes (configurable → melodies)
Status display	LED-frame (each of the 4 sides individually configurable)
SAM socket	Yes
DIP switch	Yes
PIN-Code	Yes
Function keys	4
PC housing (UL94 V0)	Yes
Protection class IP54	Yes
Protection class IP65	Yes
Environmental conditions	Housing temperature in operation IP54: -20 to 60°C (-4 to 140°F) Housing temperature in operation IP65: -20 to 70°C (-4 to 158°F) Storage: -20 to 75°C (-4 to 267°F) 5 to 90% relative humidity
Dimensions	See chapter „Order numbers“

1.1 Housing colors

Reader	Silver	White	Black
XMP-TMC3050	Yes	Yes	Yes
XMP-TMC3060	Yes	Yes	Yes
XMP-TMC3070	Yes	Yes	Yes
XMP-TMC3080	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
Protection type	IP65

- When installed IP54 or IP65
- The maximum protection class IP54 or IP65 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 card reader – XMP-TMC3050/60

Order number	Description	Dimension
 XMP-TMC3050	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader without PIN code keyboard for connection to access controller (Color: black; Protection class IP54)*	100x100x13 mm
 XMP-TMC3050-S	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader without PIN code keyboard for connection to access controller (Color: silver; Protection class IP54)*	100x100x13 mm
 XMP-TMC3050-W	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader without PIN code keyboard for connection to access controller (Color: white; Protection class IP54)*	100x100x13 mm
 XMP-TMC3060	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader with PIN code keyboard and 4 function keys for connection to access controller (Color: black; Protection class IP54)*	100x100x13 mm
 XMP-TMC3060-S	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader with PIN code keyboard and 4 function keys for connection to access controller (Color: silver; Protection class IP54)*	100x100x13 mm
 XMP-TMC3060-W	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader with PIN code keyboard and 4 function keys for connection to access controller (Color: white; Protection class IP54)*	100x100x13 mm

 XMP-TMC3050-IP65	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader without PIN code keyboard for connection to access controller (Color: black; Protection class IP65)*	100x100x13 mm
 XMP-TMC3050-IP65-S	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader without PIN code keyboard for connection to access controller (Color: silver; Protection class IP65)*	100x100x13 mm
 XMP-TMC3050-IP65-W	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader without PIN code keyboard for connection to access controller (Color: white; Protection class IP65)*	100x100x13 mm
 XMP-TMC3060-IP65	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader with PIN code keyboard and 4 function keys for connection to access controller (Color: black; Protection class IP65)*	100x100x13 mm
 XMP-TMC3060-IP65-S	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader with PIN code keyboard and 4 function keys for connection to access controller (Color: silver; Protection class IP65)*	100x100x13 mm
 XMP-TMC3060-IP65-W	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader with PIN code keyboard and 4 function keys for connection to access controller (Color: white; Protection class IP65)*	100x100x13 mm
 XMP-TMC3050-BLE	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader inclusive Bluetooth module for connection to access controller (Color: black; Protection class IP54)* *Hint: **Cannot** combined with XMP-TMC30-RF1(-*).*	100x100x13 mm

 XMP-TMC3050-BLE-S	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader inclusive Bluetooth module for connection to access controller (Color: silver; Protection class IP54)* *Hint: **Cannot** combined with XMP-TMC30-RF1(-*).*	100x100x13 mm
 XMP-TMC3050-BLE-S	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader inclusive Bluetooth module for connection to access controller (Color: white; Protection class IP54)* *Hint: **Cannot** combined with XMP-TMC30-RF1(-*).*	100x100x13 mm
 XMP-TMC3060-BLE	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader with Bluetooth module and PIN code keyboard and 4 function keys for connection to access controller (Color: black; Protection class IP54)* *Hint: **Cannot** combined with XMP-TMC30-RF1(-*).*	100x100x13 mm
 XMP-TMC3060-BLE-S	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader with Bluetooth module and PIN code keyboard and 4 function keys for connection to access controller (Color: silver; Protection class IP54)* *Hint: **Cannot** combined with XMP-TMC30-RF1(-*).*	100x100x13 mm
 XMP-TMC3060-BLE-W	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader with Bluetooth module and PIN code keyboard and 4 function keys for connection to access controller (Color: white; Protection class IP54)* *Hint: **Cannot** combined with XMP-TMC30-RF1(-*).*	100x100x13 mm
 XMP-TMC3050-BLE-65	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader inclusive Bluetooth module for connection to access controller (Color: black; Protection class IP54)* *Hint: **Cannot** combined with XMP-TMC30-RF1(-*).*	100x100x13 mm
 XMP-TMC3050-BLE-65-S	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader inclusive Bluetooth module for connection to access controller (Color: silver; Protection class IP65)* *Hint: **Cannot** combined with XMP-TMC30-RF1(-*).*	100x100x13 mm

 XMP-TMC3050-BLE-65-S	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader inclusive Bluetooth module for connection to access controller (Color: white; Protection class IP65)* *Hint: **Cannot** combined with XMP-TMC30-RF1(-*).*	100x100x13 mm
 XMP-TMC3060-BLE-65	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader with Bluetooth module and PIN code keyboard and 4 function keys for connection to access controller (Color: black; Protection class IP65)* *Hint: **Cannot** combined with XMP-TMC30-RF1(-*).*	100x100x13 mm
 XMP-TMC3060-BLE-65-S	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader with Bluetooth module and PIN code keyboard and 4 function keys for connection to access controller (Color: silver; Protection class IP65)* *Hint: **Cannot** combined with XMP-TMC30-RF1(-*).*	100x100x13 mm
 XMP-TMC3060-BLE-65-W	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader with Bluetooth module and PIN code keyboard and 4 function keys for connection to access controller (Color: white; Protection class IP65)* *Hint: **Cannot** combined with XMP-TMC30-RF1(-*).*	100x100x13 mm

2.2 Siedle card reader – XMP-TMC3050/60-S**

Order number	Description	Dimension
 XMP-TMC3050-SSM	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader without PIN code keyboard suitable for Siedle Vario for connection to access controller (Color: silver; Protection class IP54)*	100x100x13 mm
 XMP-TMC3050-SW	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader without PIN code keyboard suitable for Siedle Vario for connection to access controller (Color: white; Protection class IP54)*	100x100x13 mm
 XMP-TMC3060-SSM	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader with PIN code keyboard and 4 function keys suitable for Siedle Vario for connection to access controller (Color: silver; Protection class IP54)*	100x100x13 mm
 XMP-TMC3060-SW	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader with PIN code keyboard and 4 function keys suitable for Siedle Vario for connection to access controller (Color: white; Protection class IP54)*	100x100x13 mm
 XMP-TMC3050-BLE-SSM	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader inclusive Bluetooth module suitable for Siedle Vario for connection to access controller (Color: silver; Protection class IP54)*	100x100x13 mm
 XMP-TMC3050-BLE-SW	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader inclusive Bluetooth module suitable for Siedle Vario for connection to access controller (Color: white; Protection class IP54)*	100x100x13 mm

 XMP-TMC3060-BLE-SSM	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader with Bluetooth module and PIN code keyboard and 4 function keys suitable for Siedle Vario for connection to access controller (Color: silver; Protection class IP54)*	100x100x13 mm
 XMP-TMC3060-BLE-SW	*MIFARE Classic® & MIFARE® DESFire® EV1 + EV2 card reader with Bluetooth module and PIN code keyboard and 4 function keys suitable for Siedle Vario for connection to access controller (Color: white; Protection class IP54)*	100x100x13 mm

2.3 XMP-TMC3050-F* - Software licenses

Description	Order number
CIPURSE™ (SAM) support	XMP-TMC3050-F1
Save MIFARE Classic® and MIFARE® DESFire® EV1/EV2 keys and SecuCrypt® custom key in SAM	XMP-TMC3050-F2
Support of identifier A1 to F0 (e.g. time & attendance, business trip etc.) and memo function for function keys	XMP-TMC3060-F3
Support of Bluetooth XMP2GO® (requires XMP-TMC30-BLE)	XMP-TMC3050-F4-1
Support of Bluetooth KleverKey Classic (requires XMP-TMC30-BLE)	XMP-TMC3050-F4-2
Support of Bluetooth BlueID (requires XMP-TMC30-BLE)	XMP-TMC3050-F4-2

2.4 OEM card reader– XMP-TMC3070/80

Order number	Description	Dimension
 XMP-TMC3070	*Card reader without read and write function for connection to access controller (Color: black; Protection class IP54)* *Requires minimum one of the below licenses:* - *XMP-TMC3070-F1 – Support of LEGIC® prime & advant* - *XMP-TMC3070-F5 – Support of MIFARE Classic® & MIFARE® DESFire® EV1 + EV2* - *XMP-TMC3070-F6 – Support of HID iCLASS®*	100x100x13 mm
 XMP-TMC3070-S	*Card reader without read and write function for connection to access controller (Color: silver; Protection class IP54)* *Requires minimum one of the below licenses:* - *XMP-TMC3070-F1 – Support of LEGIC® prime & advant* - *XMP-TMC3070-F5 – Support of MIFARE Classic® & MIFARE® DESFire® EV1 + EV2* - *XMP-TMC3070-F6 – Support of HID iCLASS®*	100x100x13 mm
 XMP-TMC3070-W	*Card reader without read and write function for connection to access controller (Color: white; Protection class IP54)* *Requires minimum one of the below licenses:* - *XMP-TMC3070-F1 – Support of LEGIC® prime & advant* - *XMP-TMC3070-F5 – Support of MIFARE Classic® & MIFARE® DESFire® EV1 + EV2* - *XMP-TMC3070-F6 – Support of HID iCLASS®*	100x100x13 mm
 XMP-TMC3080	*Card reader without read and write function with PIN code keyboard and 4 function keys for connection to access controller (Color: black; Protection class IP54)* *Requires minimum one of the below licenses:* - *XMP-TMC3070-F1 – Support of LEGIC® prime & advant* - *XMP-TMC3070-F5 – Support of MIFARE Classic® & MIFARE® DESFire® EV1 + EV2* - *XMP-TMC3070-F6 – Support of HID iCLASS®*	100x100x13 mm
 XMP-TMC3080-S	*Card reader without read and write function with PIN code keyboard and 4 function keys for connection to access controller (Color: silver; Protection class IP54)* *Requires minimum one of the below licenses:* - *XMP-TMC3070-F1 – Support of LEGIC® prime & advant* - *XMP-TMC3070-F5 – Support of MIFARE Classic® & MIFARE® DESFire® EV1 + EV2* - *XMP-TMC3070-F6 – Support of HID iCLASS®*	100x100x13 mm

 XMP-TMC3080-W	*Card reader without read and write function with PIN code keyboard and 4 function keys for connection to access controller (Color: white; Protection class IP54)* *Requires minimum one of the below licenses:* - *XMP-TMC3070-F1 – Support of LEGIC® prime & advant* - *XMP-TMC3070-F5 – Support of MIFARE Classic® & MIFARE® DESFire® EV1 + EV2* - *XMP-TMC3070-F6 – Support of HID iCLASS®*	100x100x13 mm
 XMP-TMC3070-IP65	*Card reader without read and write function for connection to access controller (Color: black; Protection class IP65)* *Requires minimum one of the below licenses:* - *XMP-TMC3070-F1 – Support of LEGIC® prime & advant* - *XMP-TMC3070-F5 – Support of MIFARE Classic® & MIFARE® DESFire® EV1 + EV2* - *XMP-TMC3070-F6 – Support of HID iCLASS®*	100x100x13 mm
 XMP-TMC3070-S-IP65	*Card reader without read and write function for connection to access controller (Color: silver; Protection class IP65)* *Requires minimum one of the below licenses:* - *XMP-TMC3070-F1 – Support of LEGIC® prime & advant* - *XMP-TMC3070-F5 – Support of MIFARE Classic® & MIFARE® DESFire® EV1 + EV2* - *XMP-TMC3070-F6 – Support of HID iCLASS®*	100x100x13 mm
 XMP-TMC3070-W-IP65	*Card reader without read and write function for connection to access controller (Color: white; Protection class IP65)* *Requires minimum one of the below licenses:* - *XMP-TMC3070-F1 – Support of LEGIC® prime & advant* - *XMP-TMC3070-F5 – Support of MIFARE Classic® & MIFARE® DESFire® EV1 + EV2* - *XMP-TMC3070-F6 – Support of HID iCLASS®*	100x100x13 mm
 XMP-TMC3080-IP65	*Card reader without read and write function with PIN code keyboard and 4 function keys for connection to access controller (Color: black; Protection class IP65)* *Requires minimum one of the below licenses:* - *XMP-TMC3070-F1 – Support of LEGIC® prime & advant* - *XMP-TMC3070-F5 – Support of MIFARE Classic® & MIFARE® DESFire® EV1 + EV2* - *XMP-TMC3070-F6 – Support of HID iCLASS®*	100x100x13 mm

 XMP-TMC3080-S-IP65	*Card reader without read and write function with PIN code keyboard and 4 function keys for connection to access controller (Color: silver; Protection class IP65)* *Requires minimum one of the below licenses:* - *XMP-TMC3070-F1 – Support of LEGIC® prime & advant* - *XMP-TMC3070-F5 – Support of MIFARE Classic® & MIFARE® DESFire® EV1 + EV2* - *XMP-TMC3070-F6 – Support of HID iCLASS®*	100x100x13 mm
 XMP-TMC3080-W-IP65	*Card reader without read and write function with PIN code keyboard and 4 function keys for connection to access controller (Color: white; Protection class IP65)* *Requires minimum one of the below licenses:* - *XMP-TMC3070-F1 – Support of LEGIC® prime & advant* - *XMP-TMC3070-F5 – Support of MIFARE Classic® & MIFARE® DESFire® EV1 + EV2* - *XMP-TMC3070-F6 – Support of HID iCLASS®*	100x100x13 mm

2.5 Siedle card reader – XMP-TMC3070/80-S**

Order number	Description	Dimension
 XMP-TMC3070-SSM	*Card reader without read and write function suitable for Siedle Vario for connection to access controller (Color: silver; Protection class IP54)* *Requires minimum one of the below licenses:* - *XMP-TMC3070-F1 – Support of LEGIC® prime & advant* - *XMP-TMC3070-F5 – Support of MIFARE Classic® & MIFARE® DESFire® EV1 + EV2* - *XMP-TMC3070-F6 – Support of HID iCLASS®*	100x100x13 mm
 XMP-TMC3070-SW	*Card reader without read and write function suitable for Siedle Vario for connection to access controller (Color: white; Protection class IP54)* *Requires minimum one of the below licenses:* - *XMP-TMC3070-F1 – Support of LEGIC® prime & advant* - *XMP-TMC3070-F5 – Support of MIFARE Classic® & MIFARE® DESFire® EV1 + EV2* - *XMP-TMC3070-F6 – Support of HID iCLASS®*	100x100x13 mm
 XMP-TMC3080-SSM	*Card reader without read and write function with PIN code keyboard and 4 function keys suitable for Siedle Vario for connection to access controller (Color: silver; Protection class IP54)* *Requires minimum one of the below licenses:* - *XMP-TMC3070-F1 – Support of LEGIC® prime & advant* - *XMP-TMC3070-F5 – Support of MIFARE Classic® & MIFARE® DESFire® EV1 + EV2* - *XMP-TMC3070-F6 – Support of HID iCLASS®*	100x100x13 mm
 XMP-TMC3080-SW	*Card reader without read and write function with PIN code keyboard and 4 function keys for connection to access controller (Color: white; Protection class IP54)* *Requires minimum one of the below licenses:* - *XMP-TMC3070-F1 – Support of LEGIC® prime & advant* - *XMP-TMC3070-F5 – Support of MIFARE Classic® & MIFARE® DESFire® EV1 + EV2* - *XMP-TMC3070-F6 – Support of HID iCLASS®*	100x100x13 mm

2.6 XMP-TMC3070-F* - Software licenses

Description	Order number
Support of LEGIC® prime & advant	XMP-TMC3070-F1
Save SecuCrypt® custom key in SAM	XMP-TMC3070-F2
Support of identifier A1 to F0 (e.g. time & attendance, business trip etc.) and memo function for function keys	XMP-TMC3070-F3
Support of LEGIC® Connect (Bluetooth)	XMP-TMC3070-F4
Support of MIFARE Classic® & MIFARE® DESFire® EV1/EV2	XMP-TMC3070-F5
Support of HID iCLASS®	XMP-TMC3070-F6

2.7 Mounting frame

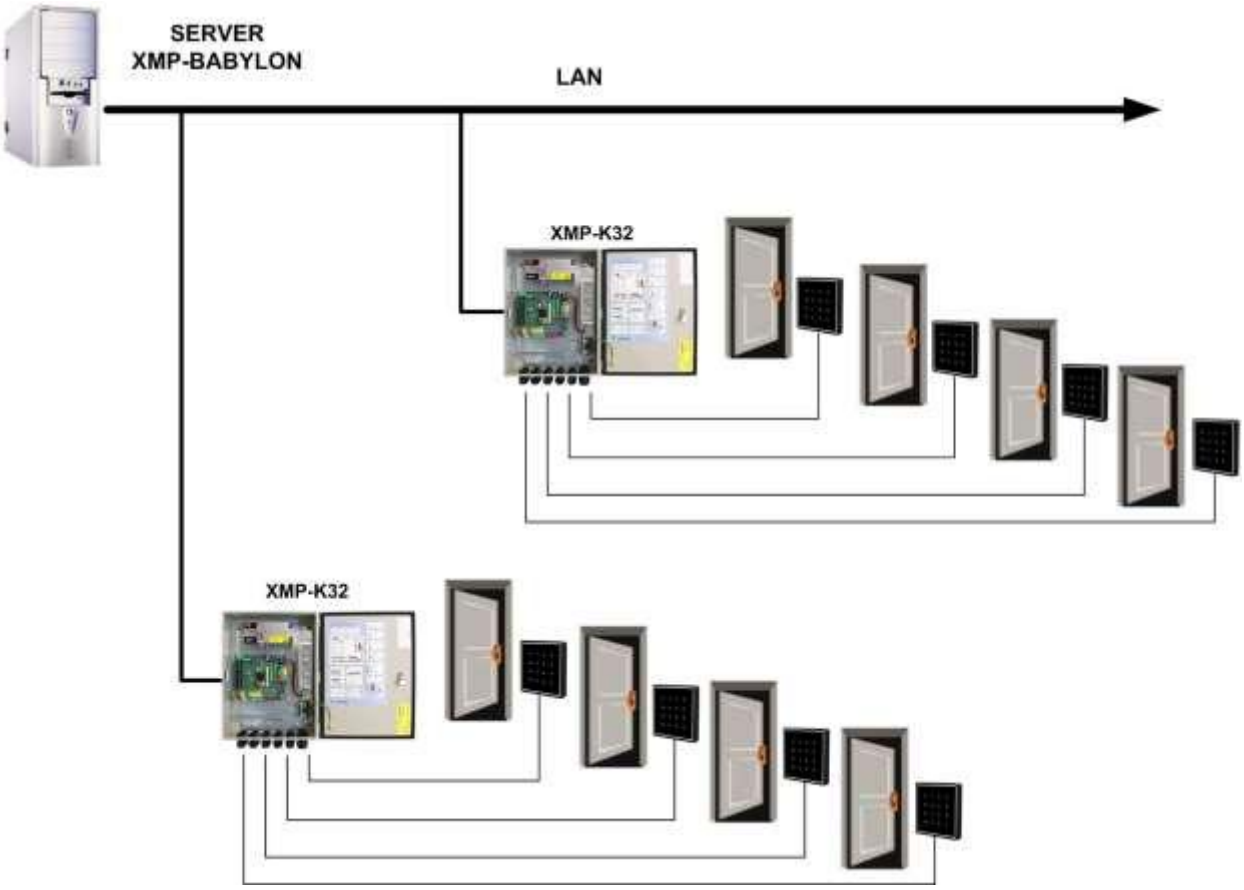
Order number	Description	Dimension
XMP-TMC30-RF1	*Mounting frame (flush-mounted box) for TMC30xx, black*	94x94x6 mm
XMP-TMC30-RF1-S	*Mounting frame (flush-mounted box) for TMC30xx, silver*	94x94x6 mm
XMP-TMC30-RF1-W	*Mounting frame (flush-mounted box) for TMC30xx, white*	94x94x6 mm
XMP-TMC30-RF2	*Mounting frame (surface) for TMC30xx, black*	94x94x20 mm
XMP-TMC30-RF2-S	*Mounting frame (surface) for TMC30xx, silver*	94x94x20 mm
XMP-TMC30-RF2-W	*Mounting frame (surface) for TMC30xx, white*	94x94x20 mm

2.8 Hardware-extensions

Order number	Description	Dimension
XMP-TMC30-BLE	*Bluetooth module for connection to XMP-TMC30xx (no IP65)*	38x19x12
XMP-TMC30-GF1	*Surcharge for glass front without keyboard, black*	
XMP-TMC30-GF1-S	*Surcharge for glass front without keyboard, silver*	
XMP-TMC30-GF1-W	*Surcharge for glass front without keyboard, white*	
XMP-TMC30-GF2	*Surcharge for glass front with keyboard, black*	
XMP-TMC30-GF2-S	*Surcharge for glass front with keyboard, silver*	
XMP-TMC30-GF2-W	*Surcharge for glass front with keyboard, white*	

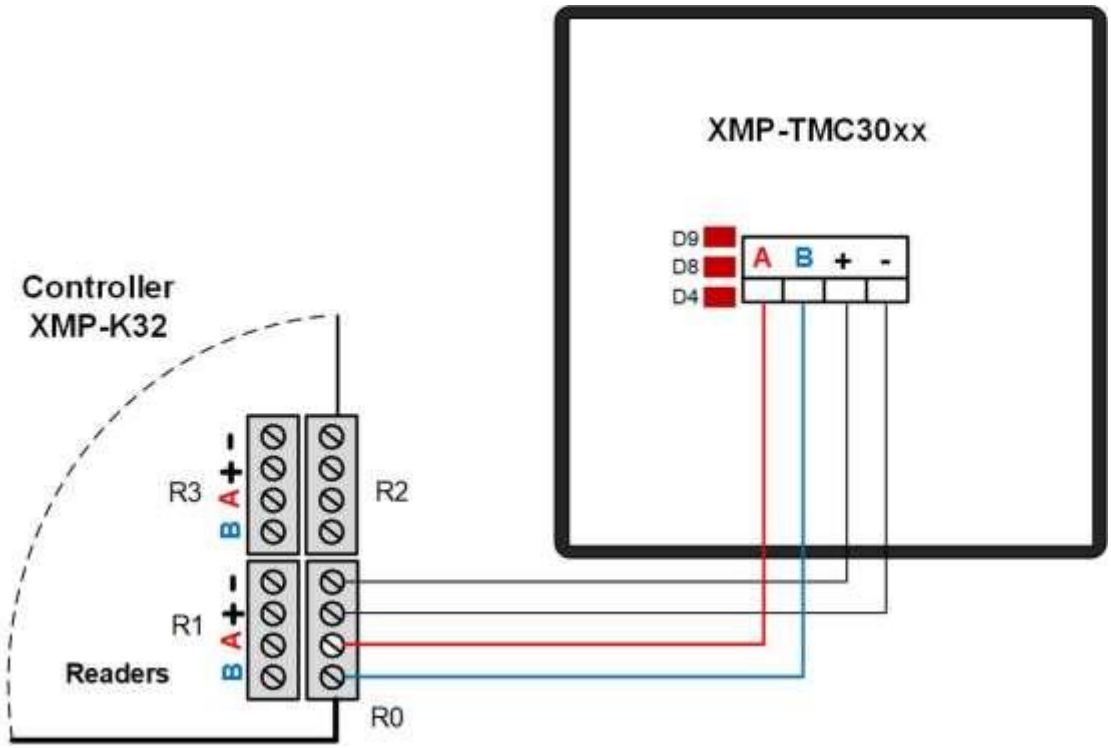
3 System overview

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



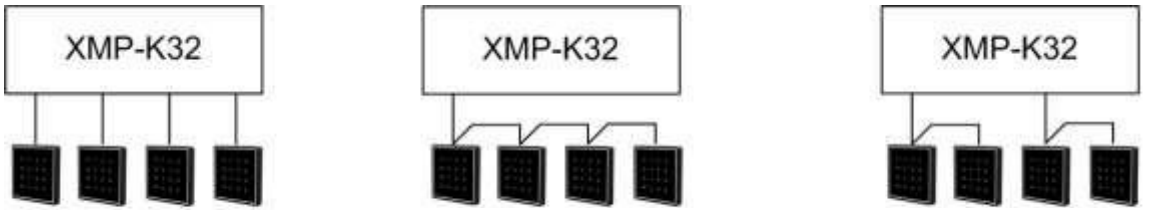
The power supply can be provided by the XMP-K12 / XMP-K32 (recommendation).

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!).



Star-shaped | Bus-shaped | Mix star and bus-shaped

3.2 Connection of IP65 cable

Card reader	Cable
A	Blue
B	White
-	Black
+	Brown

4 Meaning of dip switch SW1

Dip switch	Description
	
SW1-1	SecuCrypt®: Bit 1, 2 and 3 for reader hardware address (0 to 7) OSDP™ V2: Bit 1, 2, 3 and 4 for reader hardware address (0 to 15)
SW1-2	
SW1-3	
SW1-4	
SW1-5	Reserved
SW1-6	Activate OSDP™ V2 (Crypto) protocol
SW1-7	Addressing via software (W3XMPCRP)
SW1-8	Boot loader-Mode active (Service only)

IP65 version does not have a dip switch.

The card reader can be addressed via the XMP-BABYLON 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®

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

The reader has 3 LEDs for status indication.

LED	Description
Upper side (5x RGB LED)	Free usage
Lower side (5x RGB LED)	Free usage
Left side (5x RGB LED)	Free usage
Right side (5 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 13.558 MHz - MIFARE Classic® & MIFARE® DESFire® EV1 + EV2

The XMP-TMC3050/3060 and XMP-TMC3070/3080 reads the serial number or memory information's of MIFARE® DESFire® EV1/EV2 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***.

As communication protocol the **SecuCrypt®2.0** is recommended.

As an option the reader can communicative via **OSDO™ V2 Crypto** (for XMP-TMC3050/3060 only).

Recommended card type: ISO cards

The XMP-TMC3070/80 needs the license XMP-TMC3070-F5 to read MIFARE Classic® and/or MIFARE® DESFire® EV1/EV2 cards

7.2 13.558 MHz - LEGIC® prime & advant

The XMP-TMC3070/3080 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***.

As communication protocol the **SecuCrypt®2.0** is recommended.

Recommended card type: ISO cards

The XMP-TMC3070/80 needs the license XMP-TMC3070-F1 to read LEGIC® prime and/or advent cards

7.3 13.558 MHz – HID iCLASS®

The XMP-TMC3070/3080 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***.

As communication protocol the **SecuCrypt®2.0** is recommended.

Recommended card type: ISO cards

The XMP-TMC3070/80 needs the license XMP-TMC3070-F6 to read HID iCLASS® cards

7.4 Reading distances

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

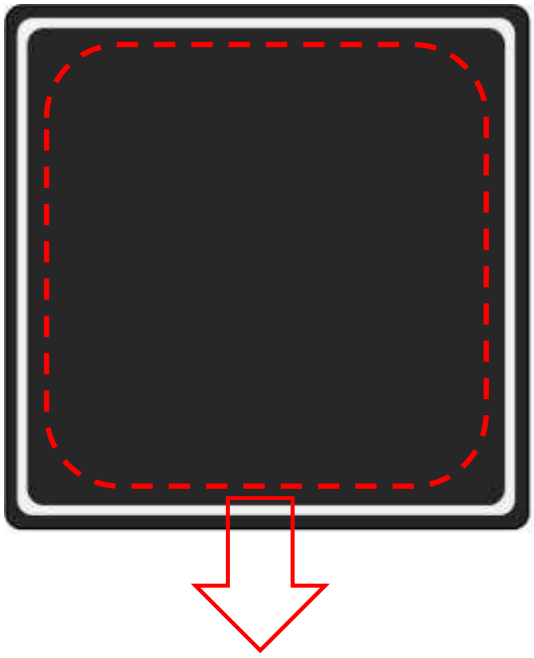
Metal parts in a distance of 120 mm can reduce the reading distance

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.

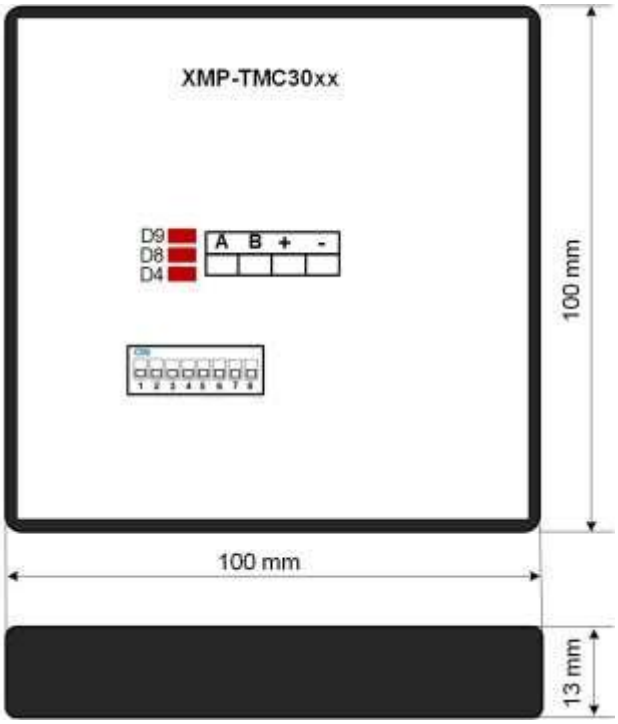
The reading distance depending on the encryption, quality and antenna of the RFID card or fob.

8 Dimensions

8.1 OEM card reader

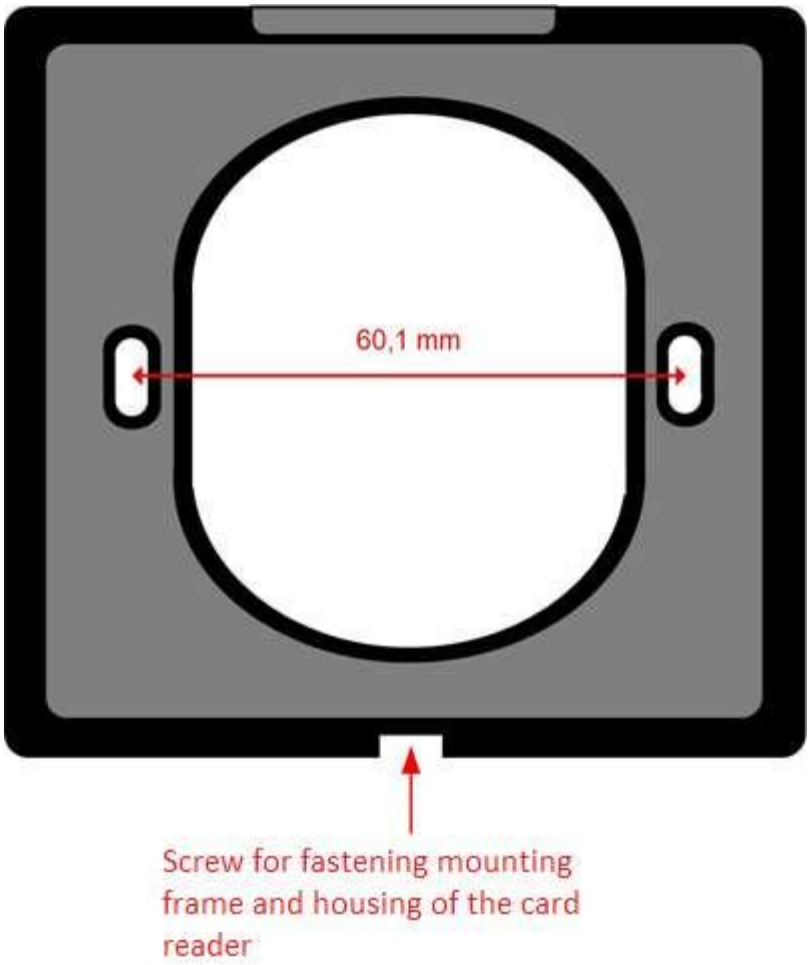


The red line shows the RFID field



The card reader can be installed on flush-mounted box (DIN49073)

8.2 Mounting frame XMP-TMC30-RF1 / XMP-TMC30-RF2



9 Compliances

FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT

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 to which the receiver is connected.
-Consult the dealer or an experienced radio/ TV technician for help.

CAUTION:

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

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

RF exposure warning

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

FCC ID: 2A6AAXMP3050
FCC ID: 2A6AAXMP3070
FCC ID: 2A6AAXMP3071
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.

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	31.05.2017	First release
V1.1	02.06.2017	New chapters
V1.2	11.09.2017	Dimensions changed
V1.3	10.07.2019	Silver color for reader
V1.4	12.12.2019	Update IP65, LEDs and BLE
V1.5	06.06.2020	Connection hint IP65
V1.6	-	-
V1.7	06.08.2020	Update LEGIC, HID, Color white
V1.8	07.10.2020	Update pictures white, Update dip switch, Update reading distance
V1.9	29.07.2021	Updates, Siedle card reader
V2.0	14.03.2021	Mounting frame
V2.1	05.08.2022	Compliances
V2.2	07.06.2023	Compliances

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Revision: March 2022 - This issue replaces all previous issues. Availability, errors and specifications are subject to change without notice.

The list of information in this manual occurs according to best knowledge and conscience. AUTEC gives no guarantee for the correctness and completeness of information in this manual. In particular, AUTEC cannot be made liable for consequential damages, which are due to erroneous or incomplete information.

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.