OEM reading module VOXIO

VOXIO-E (Easy)

Interface: RS485

Versions:

Standard	RFID technology	Special Feature
VOXIO-E-1240-A	LEGIC® prime / advant (Basis LEGIC® 4200M) Note: LEGIC media cannot be initialized	Multi-ISO platform ■ LEGIC prime/advant ■ MIFARE Classic DESFire / EV1 / EV2 ■ ISO14443 A+B ■ ISO15693
VOXIO-E-2040-A	125kHz	
VOXIO-E-3140-A	MIFARE classic MIFARE DESFire / EV1 / EV2	

Wall-mounted / Flush-mounted / with- or without keyboard
Different standard colours

Flush-mounted
Colour: Light grey / RAL 7035

Wall-mounted
Colour: Light grey RAL 7035

Flush-mounted with keyboard
Colour: Iron grey / RAL 7011

Wall-mounted with keyboard
Colour: Iron grey / RAL 7011

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Generelle Daten

Applications

- Access control
- Time and attendance
- Data collection
- Parking systems, alarm systems
- General user identification

Special features

- Compact design
- Easy to mount
  Flush mounting:
  - fits in any device box which is designed for flush or hollow wall mounting, meets DIN requirements and has a distance of 60 mm between the screws

  Wall mounting:
  - with wall mounted box directly on the wall
    cable can be introduced from above, below or rear
- Sabotage detection
- The reader module, rear panel and wall-mounted box are made of plastic
- Suitable for use outdoors and indoors
- Type of connection:
  Pluggable female headers 4-pin
  WAGO *picoMAX®eCOM*

Technical data

- Power supply
  8…30V DC
  (internal polarity reversal protection)
- Power consumption maximum
  - LEGIC Basis 4200 2,50 VA
  - 125kHz 2,00 VA
  - mifare 1,70VA
- Temperature ranges:
  - storage temperature -30°C bis +70°C
  - operating temperature -25°C bis +60°C

Interface

- RS 485 (A, B) **not** electrically isolated,
  - address setting via DIP switch
  - connectable bus terminating resistor (also via DIP switch)

Signal elements

- 3 LED, green, yellow, red
- 1 piezo buzzer

Firmware / Software protocols

- phg_crypt
- Active Sending
- OSDP
- Customer-specific

The support and availability of the different software protocols depends on the current RFID-technology.
Detailed information on request

Dimensions and Weight

Flush-mounted	Wall mounted
- height 81 mm	- height 81 mm
- width 81 mm	- width 81 mm
- depth 21 mm	- depth 40 mm
Weight: 60 g	Weight: 105 g

The wall-mounted box is an accessory and not included in the reader's delivery.

Protection class

- At the front (in assembled state) IP 54
- The maximum protection class IP 54 depends on the sealing against the mounting wall.
- If a wall-mounted box is used, the cable entry from the wall must be sealed with sealants.
- If the cable grommet provided is used, make sure that the cut-out for the cable passage appropriate for the cable.
- If the area between the rear module and the wall must also be sealed, suitable sealants (e.g. silicone) must be selected by specialized staff according to the environmental conditions.

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Supported transponder medias

The support of the transponder media listed below is generally dependent on the respective variant reader technology (hardware platform) and on the respective reader firmware.
The listing of the transponder media is without guarantee of completeness.
Further information can be received on request.

	Reader technology		
Transponder medias	**LEGIC prime / advant**	**Mifare Classic / DESFire**	**125 kHz**
LEGIC MIM 22 / MIM 256 / MIM 1024	X		
LEGIC ATC512-MP110 (ISO 14443A)	X	X (CSN/UID)	
LEGIC ATC2048-MP110 (ISO 14443A)	X	X (CSN/UID)	
LEGIC ATC4096-MP310 (ISO 14443A)	X	X (CSN/UID)	
LEGIC ATC4096-MP311 (ISO 14443A)	X	X (CSN/UID)	
LEGIC AFS4096-JP10/JP11 (ISO 14443A)	X	X (CSN/UID)	
LEGIC ATC128-MV210 (ISO 15693)	X		
LEGIC ATC256-MV210 (ISO 15693)	X		
LEGIC ATC1024-MV110 (ISO 15693)	X		
ISO 14443A-Transponder(UID/CSN)	X	X	
ISO 15693-Transponder(UID/CSN)	X		
SONY FeliCa subset	X		
INSIDE Secure (UID/CSN)	X		
Classic 1k / 4k	X	X	
DESFire 4k	X	X	
DESFire EV1 / EV2, 2k / 4k / 8k	X	X	
Transparent, ISO14443A		X	
Transparent, ISO14443A Layer 3	X		
Transparent, ISO14443A/B Layer 4 subset	X		
Transparent, ISO15693 Layer 3	X		
Transparent, NFC Forum Type 2 Tag	X		
Transparent, NFC Forum Type 3 Tag	X		
hitag 1			X
hitag 2			X
hitag S			X
µem 4102 (read only)			X
µem V4150			X

Attention:

Recommendation at use of smart card chips for LEGIC “card in card“Solutions

A aptitude examination of the corresponding medium should be carried out before use or intended use.

Detailed information about the procedure are available on request.

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Pin allocation / Terminal specification / Hardware wiring

Reader module backsite with connector

Reader module backsite without connector

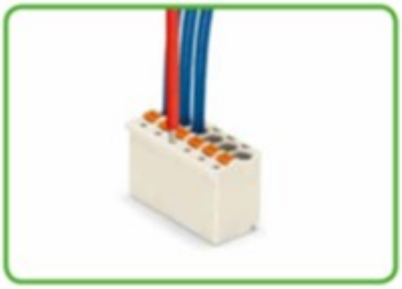
Connectror ST2
(Pluggable female headers 4-pin WAGO *picoMAX®eCOM*)
Power supply / Interface

PIN Nr.	Interface
	RS485
1	Data "A"
2	Data "B"
3	GND
4	+Ub (8 bis 30 V / DC)

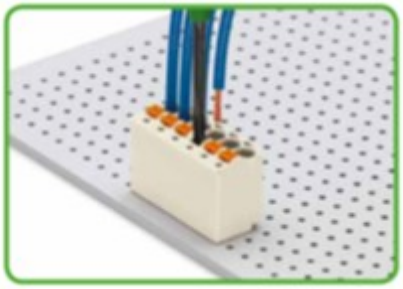
Conductor data: WAGO *picoMAX®eCOM*

Connection technology	CAGE CLAMP® S	
Conductor size: solid	0.2 – 1.5 mm²	
Conductor size: fine-stranded	0.2 – 1.5 mm²	
Conductor size: fine-stranded	0.25 – 0.75 mm²	(with insulated ferrule)
Conductor size: fine-stranded	0.25 – 1.5 mm²	(with uninsulated ferrule)
AWG	24 – 14	14: THHN, THWN
Strip length	8 – 9 mm / 0.31 – 0.35 in	

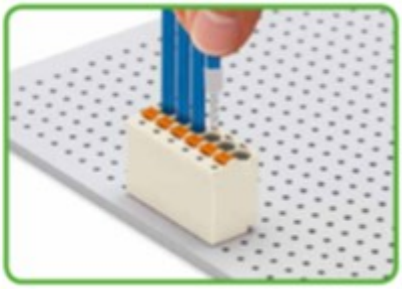
Handling *picoMAX®eCOM*



Testing with 1 mm Ø test pin, tip contact.

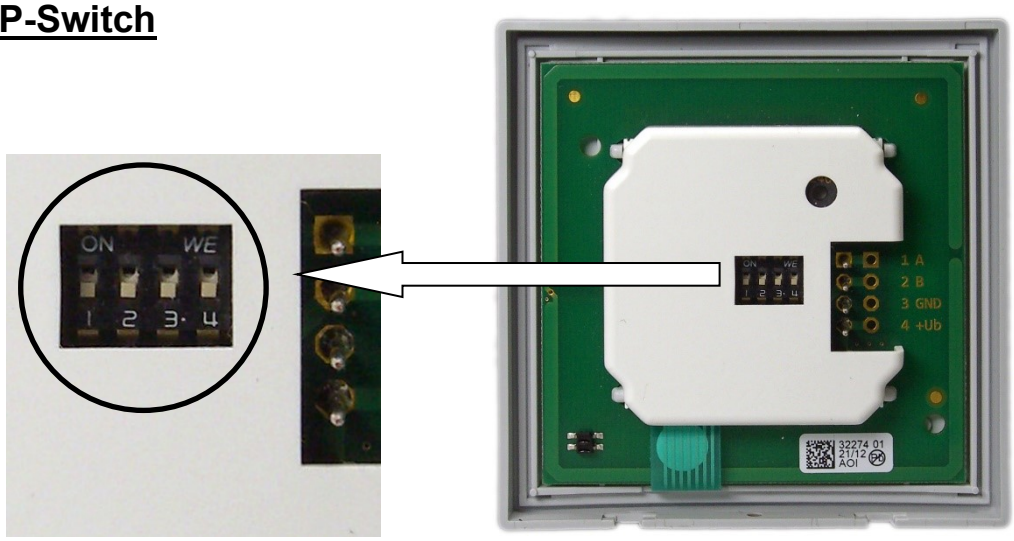


Terminating fine-stranded conductors and removing all conductor types via push-buttons.



Terminating solid and ferruled conductors via push-in termination.

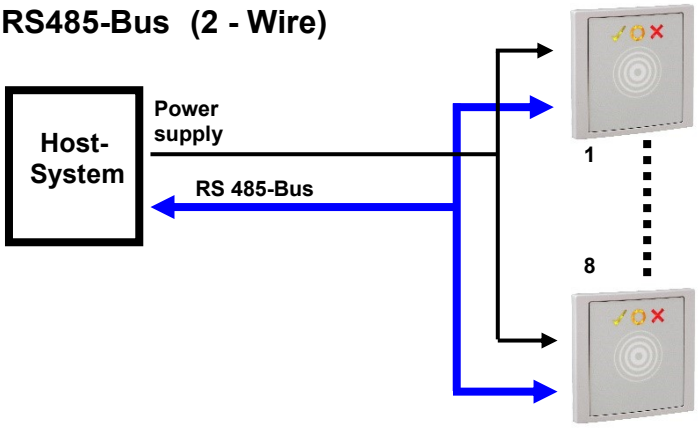
DIP-Switch



DIP switches (4 Switches, S1 to S4) Device adress, mode, bus terminationg resistor		
DIP-Switch		**Function**
S1		Depends on the firmware, e.g. setting of the reader address
S2		
S3		
S4	OFF	RS485 Interface **no** bus terminating resistor
	ON	RS485 Interface **120 Ohm** bus terminating resistor

Configuration

RS485-Bus (2 - Wire)



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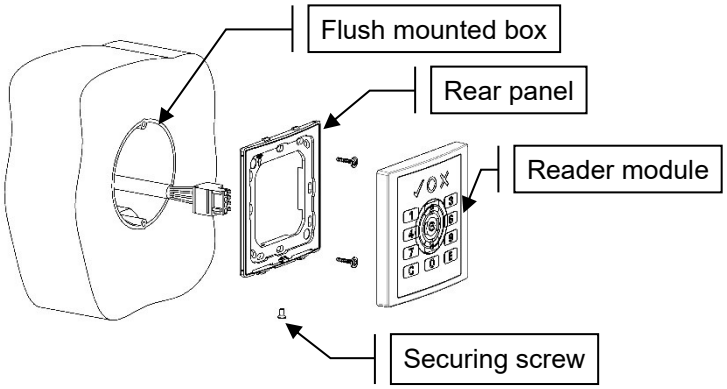
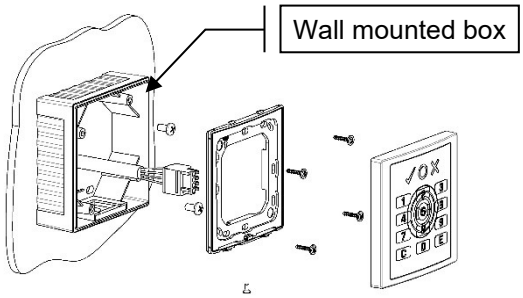
Construction

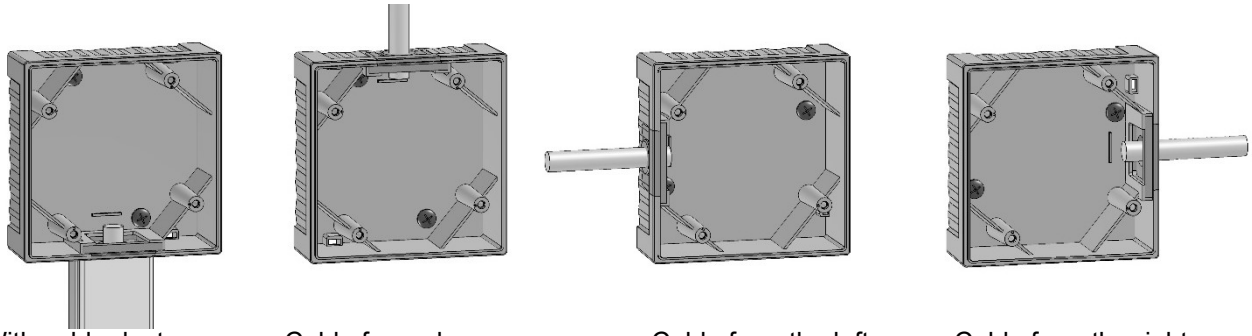
Flush mounted version



Wall mounted version (cable entry through the wall mounted box)

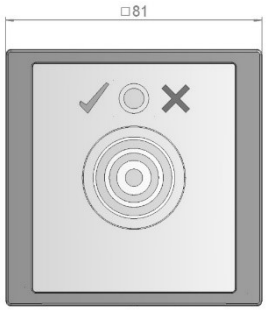


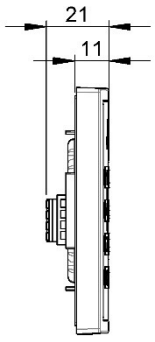
Other cable entry options in case of wall mounting



With cable duct | Cable from above | Cable from the left | Cable from the right

Dimensions





Flush mounted version

Wall mounted version

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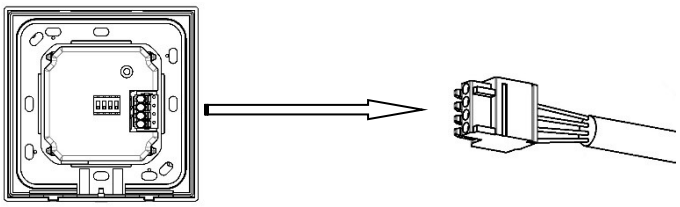
Mounting

Mounting preparations: **Install the connection cables for power supply and RS485 interface and prepare it to connect them.**

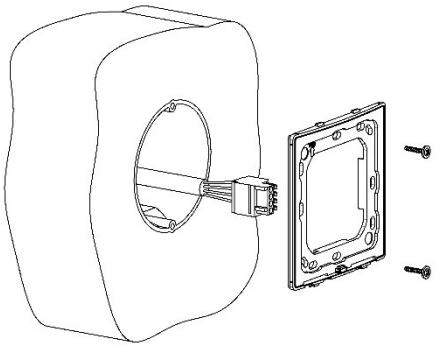
Remove th pluggable female headers 4-pin from reader modul and connect the wire.



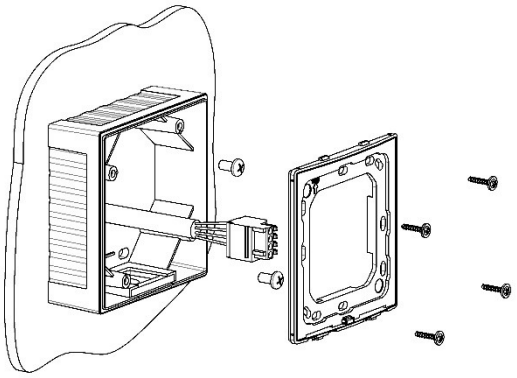
The suitable connection plan is enclosed to the reader

Attention ! **The wiring must be done under no-voltage conditions.**
The operating voltage may only be turned on after the reader has been completely installed.

Mounting the rear panel



Flush-mounted model
Screw the rear panel on the DIN installation box with a distance of 60 mm between the screws. Use the provided screws.



Wall mounted model
Mount the wall mount box on the wall. Screw the rear panel on the wall mounted box. Use the provided screws.

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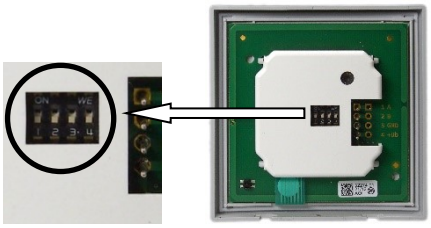
Connecting and configuration of the reader module

DIP switches configuration: The DIP switches must be set according to the firmware function.



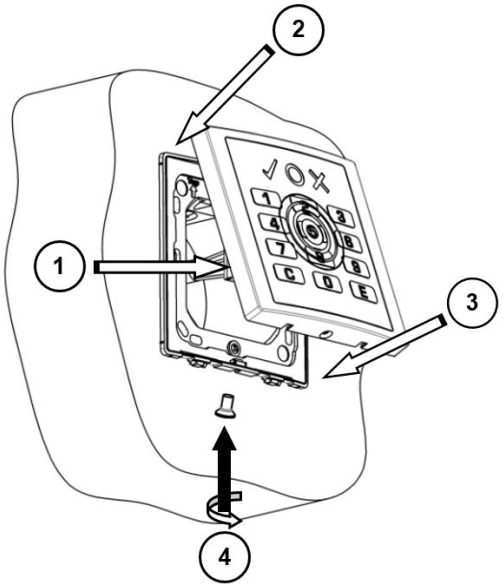
The suitable connection plan is enclosed to the reader and also includes the DIP switch configuration

Installation of the reader module

1. Plug the wired connector into the reader module
2. Fix the front module on the rear panel and hang it at the top in the two securing brackets
3. Press the lower part of the front module towards the rear panel until the locks on the left and right are completely snapped in

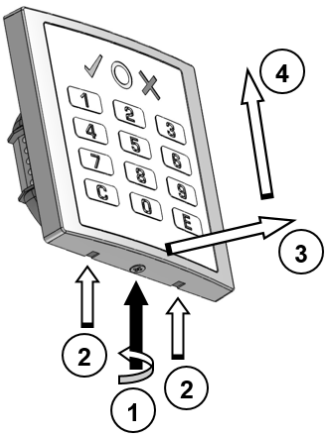
You hear – or also feel – a clear “click“ at each successful snapping in process

4. Screw in the securing screw again if necessary, after the lock is properly snapped in



Disassembly of the reader module

1. Remove the securing screw
2. Insert any cylindrical object or a fine screwdriver with a maximum diameter of 3 mm vertically from below into the unlock openings and push it upwards as far it will go in order to unlock the front module.
3. Fold away the lower part of the unlocked front module approx. 1 cm to the front
4. Push the front module slightly upwards until it is released from the upper securing brackets.



EG Conformity

The device complies with the essential legal requirements, if used for its intended use.
The EG-Declaration of Conformity can be received on request.

Care and cleaning instruction

The use of hard or sharp objects (rings, fingernails etc.) can cause scratches and damage the device.
Wipe the device with a soft lint-free cloth, or one that has been lightly dampened with water.
The use of caustic liquids such as benzene, thinners, alcohol, solvents, or any kind of abrasive cleaners will lead to surface deterioration and damage.