



## Product description

The SCALA readers are write/reader units, which can be used in combination with the SCALA EAC system. They are used for contactless identification in SCALA. The reader is suitable for both indoor and outdoor installation.

The new SCALA reader in modern, clear & timeless design fits harmoniously into the look of the building.

Operation is extremely easy thanks to the clear signals. The display takes place both visually via LEDs and acoustically. The user therefore sees instantly whether access is being granted or whether new user rights are being written on the identification card.

The data of the transponder is converted 1:1 analogue/digital and sent to the SCALA controller. The security of the encryption is identical to the security of the air interface between the user identification card and reader.

All safety-relevant processes do not take place in the reader, but are controlled in the controller. This rules out tampering between the identification card, reader and controller based on the current state-of-the-art technology – such as tapping the encryption or replacing the reader with a compromised unit.

The SCALA readers have integrated temperature and voltage sensors as standard, which permanently measure the temperature and input voltage of the readers. This can help to prevent faults.

The available operating states are displayed via a yellow, a dual colour (red/green) and a RGB-LED. The transmission quality between the user identification card and the reader is displayed via the RS485 bus with a communication LED.

The communication between SCALA reader and controller takes place via a RS485 interface. Both the communication and the voltage supply takes place via the 4-wire cable.

The wiring of the reader takes place intuitively and is particularly easy.

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The SCALA reader adapts optimally to the relevant requirements of the building. Thanks to the set up in modular form, the reader is available as both a surface-mounted and a flush-mounted version. In addition to a pure RFID solution, the reader is also available as a PIN variant with RFID and keypad. This means that the reader offers further usage options through extended functions and security levels.

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The SCALA reader can be mounted on any standard flush-mounted box. The reader can also be surface-mounted using the mounting frame.

- locking
  - Permanent open/permanent locking
  - Authorisation via identification card, identification card and PIN and PIN only
  - For authorisation via identification card and PIN, the sequence with which the user authentication takes place can be set in the software (SCALA net): First the identification card, then the PIN, or the PIN followed by the identification card
  - Door code (SCALA PIN reader)
  - Threat code (SCALA PIN reader)
  - Alarm arming/disarming (SCALA net PIN reader)

## Overview of Advantages

- Permanent open/permanent locking
- Authorisation via identification card and PIN
- For authorisation via identification card and PIN, the sequence with which the user authentication takes place can be set in the software (SCALA net): First the identification card, then the PIN, or the PIN followed by the identification card
- Door code (SCALA PIN reader)
- Threat code (SCALA PIN reader)
- Alarm arming/disarming (SCALA PIN reader)
- Integrated buzzer
- 3 multi-coloured LEDs
- RS485 interface (SCALA protocol)
- Integrated temperature monitoring (evaluation in SCALA net)
- Integrated voltage monitoring (evaluation in SCALA net)
- Integrated read/write mode (can be set via the SCALA software)
- Integrated encryption mode
- Encrypted data transmission from the identification card to the door control

## Technical data

Input operating voltage	12-24 V DC +/- 15 %, 0.8 W
Max. start current consumption at 12 V DC	0.07 A
Authentication	PIN & card combined
Code	PIN code: 4- to 8-digit code can be set in the software
Approvals	CE
Dimension	82 x 86 x 51 mm (W x H x D)
Material housing	plastic
Color	Frame: Silver; cover: Black
Class of protection	IP54
Operating temperature range	-25 °C to +70 °C
Relative humidity	< 95% (non-condensing)
Status	1 x single-color LED, 1 x dual-color LED, 1 x RGB LED
RFID Technologies (Based on reader type)	MIFARE® Classic® / MIFARE® DESFire® EV1/EV2
RFID reading	UID / Sektor / Block / Application / File
RFID Reading range	approx. 2-4 cm identification card; approx. 2 cm key tag
Communication interfaces	RS485 interface for connection to the controller (automatic baudrate recognition) SCALA protocol.
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