Secpass

IP-based intelligent controller in DIN rail format

USER MANUAL

TABLE OF CONTENTS

1 INTRODUCTION

1.1 ABOUT THIS MANUAL

This manual is intended for users and installers. It enables the safe and appropriate handling and installation of the product and it gives a general overview, as well as important technical data and safety information about the product. Before using and installing the product, the users and installers should read and understand the content of this manual.

For the sake of better understanding and readability, this manual might contain exemplary pictures, drawings and other illustrations. Depending on the product configuration, these pictures might differ from the actual design of the product.

The original version of this manual has been written in English. Wherever the manual is available in another language, it is considered as a translation of the original document for information purposes only. In case of discrepancy, the original version in English will prevail.

1.2 SESAMSEC SUPPORT

In case of any technical questions or product malfunction, refer to the sesamsec website (www.sesamsec.com) or contact sesamsec technical support at **support@sesamsec.com**

In case of questions regarding your product order, contact your Sales representative or sesamsec customer service at **info@sesamsec.com**

2 SAFETY INFORMATION

Transport and storage

- Carefully observe the transport and storage conditions described on the product packaging or other relevant product documents (e.g. data sheet).

Unpacking and installation

- Before unpacking and installing the product, this manual and all relevant installation instructions must be read carefully and understood.

- The product might show sharp edges or corners and requires a particular attention during the unpacking and installation.
  Unpack the product carefully and do not touch any sharp edges or corners, or any sensitive components on the product. If necessary, wear safety gloves.

- After unpacking the product, check that all components have been delivered according to your order and delivery note.
  Contact sesamsec if your order is not complete.

- The following measures must be checked prior to any product installation:
  - Make sure that the mounting location and tools used for the installation are appropriate and safe. In addition, make sure that the cables intended to be used for the installation are appropriate. Refer to Chapter "Installation" for more information.
  - The product is an electrical device made of sensitive materials. Check all product components and accessories for any damage.
    A damaged product or component may not be used for the installation.
  - **Life-threatening hazard in the event of fire**
    A faulty or improper installation of the product might cause a fire and lead to death or severe injuries. Check that the mounting location is equipped with appropriate safety installations and devices, like a smoke alarm or fire extinguisher.
  - **Life-threatening hazard due to electrical shock**
    Make sure that there is no voltage on the wires before starting with the electrical wiring of the product and check that power is turned off by testing the power supply of each wire.
    The product may be supplied with power only after the installation has been completed.
  - Make sure that the product is installed in accordance with local electrical standards and regulations and observe general safety measures.
  - Risk of property damage due to transient overvoltage (surges)
    Transient overvoltage implies short-duration voltage peaks that might result in system breakdown or significant damage of electrical installations and devices.
    sesamsec recommends the installation of appropriate Surge Protection Devices (SPD) by qualified and authorized personnel.
  - sesamsec also recommends the installers to follow general ESD protective measures during the installation of the product.

  Please also refer to the safety information in Chapter "Installation".

- The product must be installed in conformity with applicable local regulations. For instance, the product must be installed to comply with all specifications listed in Appendix P of IEC 62368-1.
  Check if a minimum installation height is mandatory and observe all regulations applicable in the region in which the product is installed.

- The product is an electronic product whose installation requires specific skills and expertise.
  The installation of the product should be done by trained and qualified personnel only.

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Handling

- To comply with the applicable RF exposure requirements, the product should be installed and operated with a minimum distance of 20 cm to any user's/nearby person's body at all times. In addition, the product shall be used in such a manner that the potential for human contact during normal operation is minimized.

- The product is equipped with light-emitting diodes (LED).
  Avoid direct eye contact with the blinking or steady light of the light-emitting diodes.

- The product has been designed for use under specific conditions, e.g. in a specific temperature range (refer to the product data sheet).
  Any use of the product under different conditions might damage the product or affect its proper functioning.

- The user is liable for the use of spare parts or accessories other than the ones sold or recommended by sesamsec.
  sesamsec excludes any liability for damages or injuries resulting from the use of spare parts or accessories other than the ones sold or recommended by sesamsec.

Maintenance and cleaning

- Any repair or maintenance work should be done by trained and qualified personnel only.
  Do not allow any repair or maintenance work on the product by an unqualified or unauthorized third party.

- **Life-threatening hazard due to electrical shock**
  Before any repair or maintenance work, turn the power off.

- Check the installation and electrical connection of the product in regular intervals for any signs of damage or wear. Should any damage or wear be noticed, contact sesamsec or a trained and qualified personnel for repair or maintenance work.

- The product does not need any special cleaning. However, the housing and display may be carefully cleaned up with a soft, dry cloth and a non-aggressive or non-halogenated cleaning agent on the outer surface only.
  Make sure that the used cloth and cleaning agent do not damage the product or its components (e.g. label(s)).

Disposal

- The product must be disposed of in accordance with applicable local regulations.

Product modifications

- The product has been designed, manufactured and certified as defined by sesamsec.
  Any product modification without prior written approval from sesamsec is prohibited and considered improper use of the product. Unauthorized product modifications may also result in the loss of product certifications.

If you are unsure about any part of the safety information above, contact sesamsec support.

Any failure to comply with the safety information given in this document is considered improper use. sesamsec excludes any liability in case of improper use or faulty product installation.

3 PRODUCT DESCRIPTION

3.1 INTENDED USE

Secpass is an IP-based intelligent controller intended for physical access control applications. The product is only for indoor use in environmental conditions according to the product data sheet and installation instructions given in this manual and in the instructions for use delivered with the product.

Any use other than the intended use described in this section, as well as any failure to comply with the safety information given in this document, is considered improper use. sesamsec excludes any liability in case of improper use or faulty product installation.

3.2 COMPONENTS

Fig. 1

Secpass is equipped with one display, 2 reader busses, 4 outputs, 8 inputs, an Ethernet port and a power connection (Fig. 2).

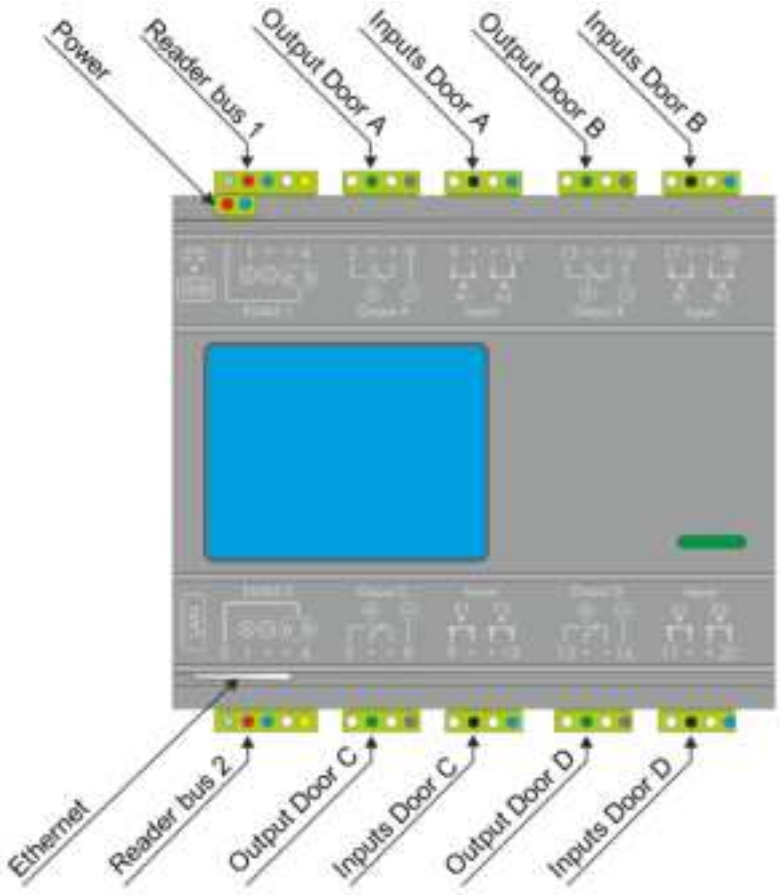


Fig. 2

3.3 TECHNICAL SPECIFICATIONS

Dimensions (L x W x H)	Approx. 105.80 x 107.10 x 64.50 mm / 4.17 x 4.22 x 2.54 inch
Weight	Approx. 280 g / 10 oz
Protection class	IP30
Power supply	12-24 V DC DC power input (max.): 5 A @12 V DC / 2.5 A @24 V DC including readers and door strikes (max. 60 W) Total DC output (max.): 4 A @12 V DC; 2 A @24 V DC Relay output @12 V (internally powered): max. 0.6 A each Relay output @24 V (internally powered): max. 0.3 A each Relay output, dry (potential-free): max. 24 V, 1 A The sum of all external loads must not exceed 50 W ES1/PS1 or ES1/PS2[1] classified power source according to IEC 62368-1
Temperature ranges	Operating: +5 °C up to +55 °C / +41 °F up to +131 °F Storage: -20 °C up to +70 °C / -4 °F up to +158 °F
Humidity	10% to 85% (non-condensing)

[1] All cables used in PS2 circuits must comply with IEC 60332.

Entries	Digital entries for door control (32 entries in total): 8x input which can be defined via software e.g. frame contact, request to exit; Sabotage detection: yes (optical recognition with IR proximity and accelerometer)
Exits	Relays (1 A / 30 V max.) 4x change over contacts (NC/NO available) or direct power output
Communication	Ethernet 10,100,1000 MB/s WLAN 802.11 B/G/N 2.4 GHz 2x RS-485 reader channels PHGCrypt & OSDP V2 encrypt./unencrypt. (per Channel Termination Resistor via software on/off)
Display	2.0" TFT active matrix, 240(RGB)*320
LEDs	Power ON, LAN, 12 V reader, relay active input open/closed, relay powered, relay exits under power, RX/TX LEDs, reader voltage
CPU	ARM Cortex-A 1.5 GHz
Storage	2 GB RAM / 16 GB flash
Cardholder badges	10,000 (basic version), up to 250,000 on request
Events	More than 1,000,000
Profiles	More than 1,000
Host protocol	Rest-Web-Service, (JSON)
Security	Optional TPM2.0 for key generation and administration, signature check of OS updates X.509 certificates, OAuth2, SSL, s/ftp RootOfTrust with IMA measurements

Refer to the product data sheet for more information.

3.4 FIRMWARE

The product is delivered ex-works with a specific firmware version, which is displayed on the product label (Fig. 3).

Fig. 3 - exemplary illustration

3.5 LABELING

The product is delivered ex-works with a label (Fig. 3) attached to the housing. This label contains important product information (e.g. serial number) and may not be removed or damaged. In case of a label wear-out, contact sesamsec.

4 INSTALLATION

4.1 GETTING STARTED

Before starting with the installation of a Secpass controller, the following measures must be checked:

- Make sure you have read and understood all safety information given in Chapter “Safety information”.
- Make sure that there is no voltage on the wires and check that power is turned off by testing the power supply of each wire.
- Make sure that all tools and components required for the installation are available and appropriate.
- Make sure that the installation site is appropriate for the installation of the product. For example, check that the temperature of the installation site is within the operating temperature range given in the Secpass technical documentation.
- The product should be installed at an appropriate and service-friendly installation height. When installing the product, make sure the display, the ports and the inputs/outputs are not covered or damaged and stay accessible for the user.

4.2 INSTALLATION OVERVIEW

The illustration below gives an overview on an exemplary installation of a Secpass controller in a distribution box with mounting rail and additional components recommended by sesamsec:

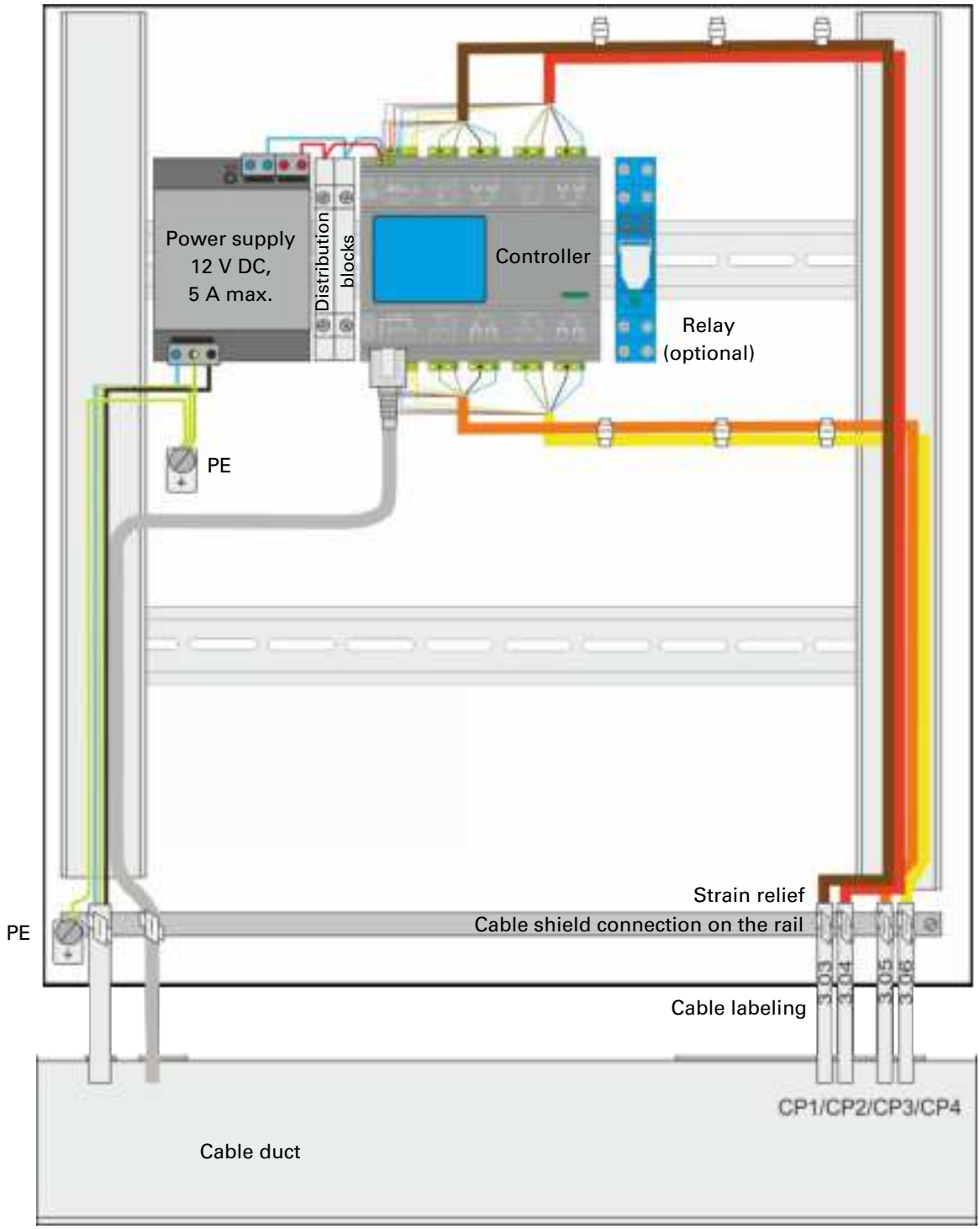


Fig. 4

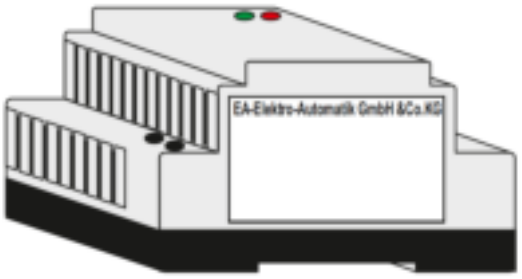
During each installation of a Secpass controller, it is recommended to note the following information:

- Customer
- Secpass ID
- Installation site
- Fuse (no. and location)
- Controller name
- IP address
- Subnet mask
- Gateway

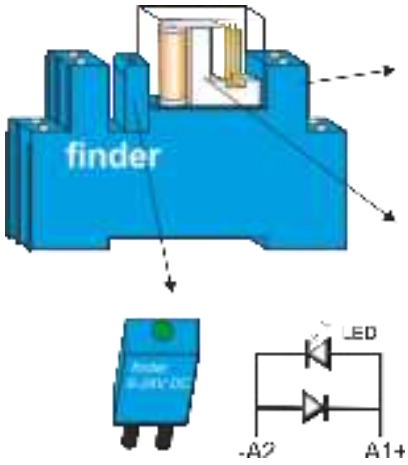
Additional components recommended by sesamsec[2]:

Stabilized power supply
Manufacturer: EA Elektro-Automatik

Power supply for DIN rail mounting
12-15 V DC, 5 A (60 W)
Series: EA-PS 812-045 KSM



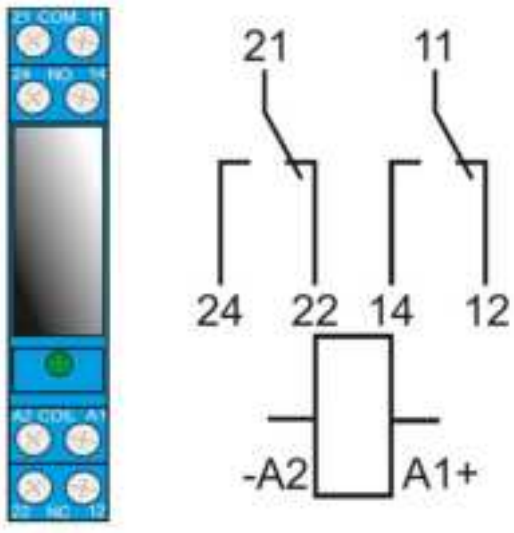
Relay interface modules (2xUM)
Manufacturer: Finder



Screw terminal (box clamp) socket
Type 95.85.3 for 35 mm rail mount

Relay interface module, type e49.52
12 V DC contact 8 A, 250 V AC

Plug-in module with LED display
Type 99.80.9.024.99 / H12
6-24 V DC



Secpass controllers can only be mounted on a 35 mm rail (DIN EN 60715).

[2] The components above are recommended by sesamsec for an installation in Germany. For the installation of a Secpass controller in another country or region, contact sesamsec.

4.3 ELECTRICAL CONNECTION

4.3.1 CONNECTOR ASSIGNMENT

- The control points 1 to 4 of the main unit must be wired to the corresponding connection panels.
- The relays and inputs are freely programmable.
- sesamsec recommends max. 8 readers per controller. Each reader must have its own address.

Exemplary connection:

- The reader bus 1 consists of Reader 1 and Reader 2, each of them being assigned with an own address:
  - Reader 1: Address 0
  - Reader 2: Address 1
- The reader bus 2 consists of Reader 3 and Reader 4, each of them being assigned with an own address:
  - Reader 3: Address 0
  - Reader 4: Address 1

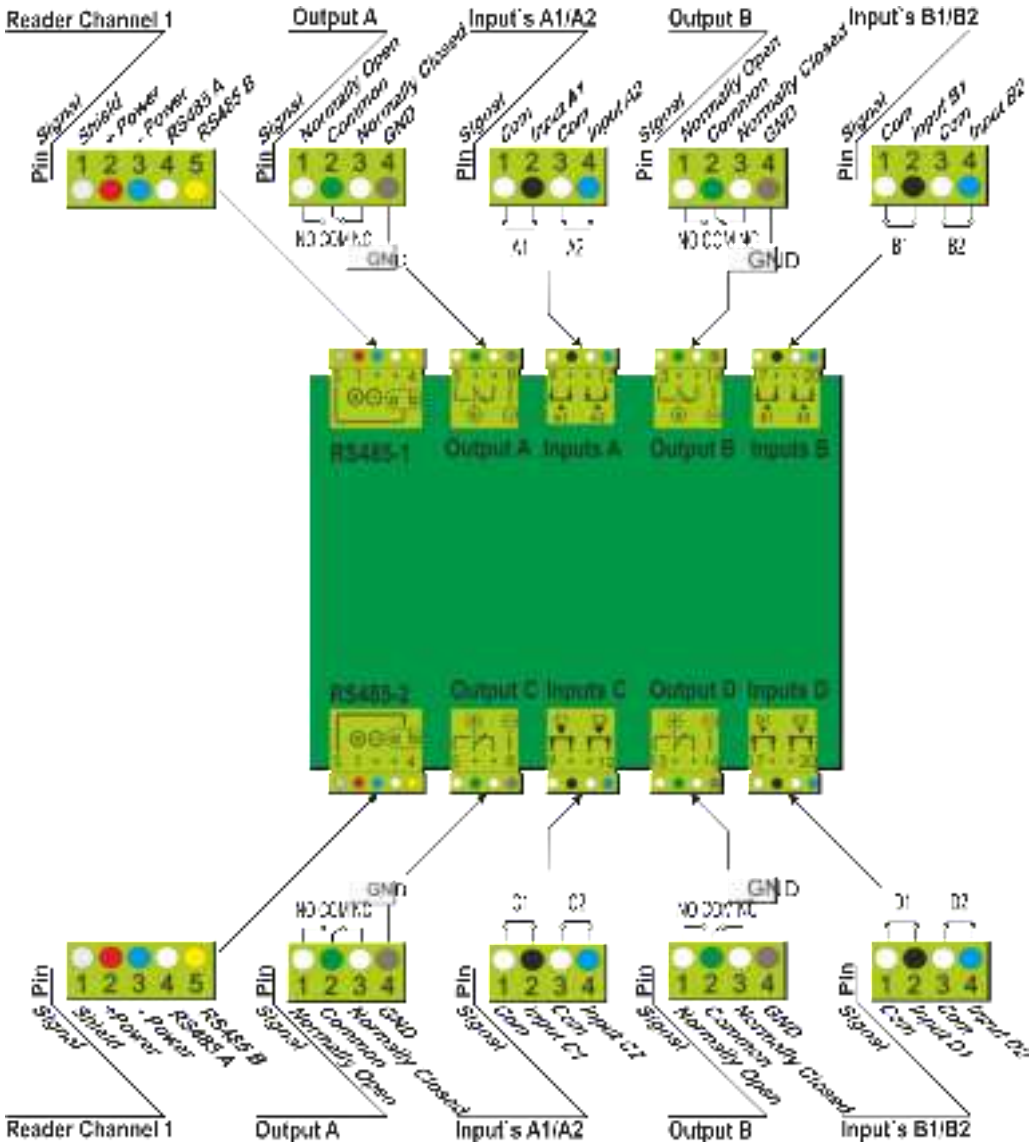


Fig. 5

4.3.2 CABLE INFORMATION

Any appropriate cables that meet the prerequisites of RS-485 installations and wirings can be used.

In case of long cables, voltage drops might lead to a breakdown of the readers. To prevent such malfunctions, it is recommended to wire the ground and input voltage with two wires each.

In addition, all cables used in PS2 circuits must comply with IEC 60332.

5 SYSTEM CONFIGURATION

5.1 INITIAL START-UP

After initial start-up, the controller main menu (Fig. 6) appears on the display.

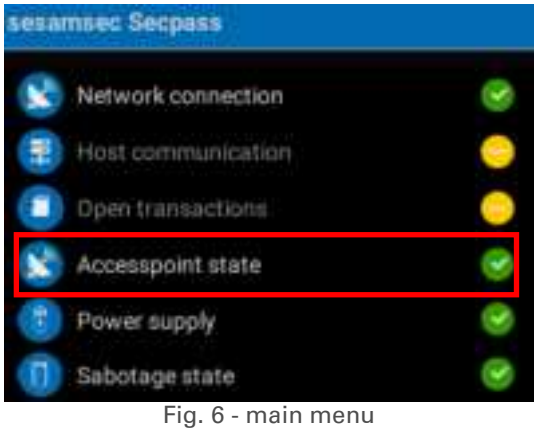


Fig. 6 - main menu

	Explanation		
Menu item	✓	−	✗
Network connection	Connected to Ethernet	-	Not connected to Ethernet
Host communication	Communication with host established	No host defined or reachable	-
Open transactions	No event waiting for transfer to the host	Some events have not been transferred to the host	-
Accesspoint state	Hotspot enabled	Hotspot disabled	-
Power supply	Operating voltage OK	-	Operating voltage limit exceeded, or overcurrent detected
Sabotage state	No sabotage detected	-	A motion detector or contact signals that the device has been moved or opened

By default, “Accesspoint state” is automatically enabled. As soon as there is no WiFi communication anymore for more than 15 minutes, “Accesspoint state” is automatically disabled.

5.2 CONFIGURATION VIA CONTROLLER USER INTERFACE

Proceed as follows to set the controller with the user interface:

1. In the main menu, swipe down once to open the admin login page (Fig. 7).

Fig. 7

2. Enter your password in the field “Admin password...” (by default: 123456) and tap “Done”. The configuration menu (Fig. 8) opens.

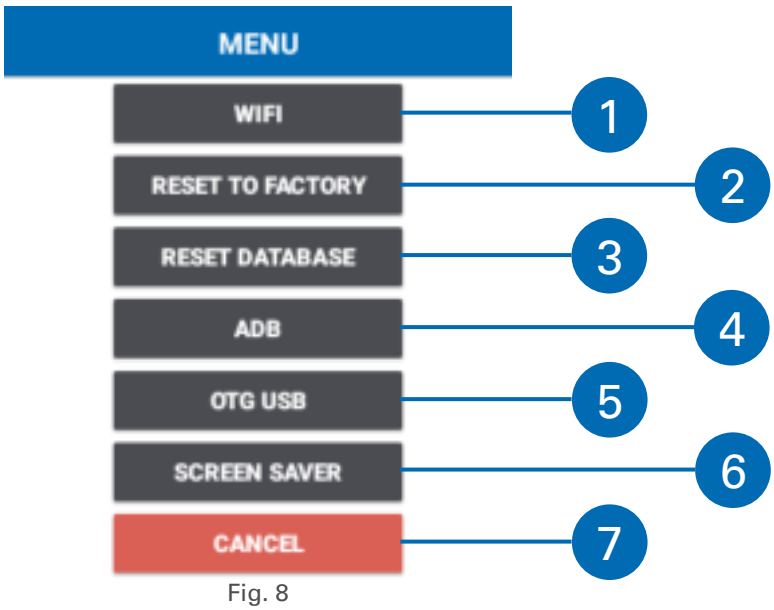


Fig. 8

Button	Description
1	The “WIFI” submenu enables to activate or deactivate the WiFi hotspot.
2	The “RESET TO FACTORY” submenu enables to reset the controller software to the factory settings. This option also includes a reset of the access database (readers, control points, persons, badges, roles, profiles and schedules).
3	The “RESET DATABASE” submenu enables to delete all data in the access database, without resetting the controller software version.

4	The “ADB” function enables to debug the controller.
5	The “OTG USB“ function enables to connect an external device per USB, e.g. a scanner or a keyboard. This might be necessary, for example to enter the controller serial number after reset.
6	The “SCREEN SAVER” function enables to switch the display backlight off after 60 seconds of inactivity.
7	Tapping the „CANCEL“ button enables to close the configuration menu and to go back to the main menu.

5.2.1 “WIFI” SUBMENU

When selecting the “WIFI” submenu in the configuration menu (Fig. 8), the WiFi hotspot connection state is displayed on the left side, as illustrated below:

Fig. 9 - hotspot is ON


Fig. 10 - hotspot is OFF

If you want to go back to the configuration menu, tap the “CANCEL” button.

If you want to connect or disconnect the hotspot, proceed as follows:

1. Tap the corresponding button (“HOTSPOT OFF” to disconnect the hotspot, or “HOTSPOT ON” to connect it) above the “CANCEL” button.
   A new screen appears and shows the progress status of the hotspot connection (Fig. 11).

Fig. 11

After a few seconds, the hotspot connection state is displayed in a new screen:

Fig. 12 - hotspot disconnected

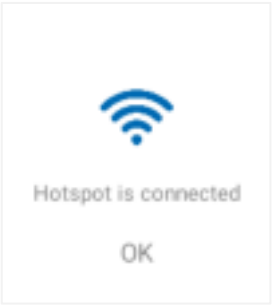


Fig. 13 - hotspot connected

2. Tap "OK" to confirm and go back to the configuration menu.

As soon as the hotspot has been connected, the connection data (IP address, network name and password) appears in the "Software Versions / Status" menu. To find the connection data, proceed as follows:

1. Go back to the main menu and swipe left twice to display the "Software Versions / Status" menu.
2. Swipe up until the "Hotspot" entry is displayed (Fig. 14).

Fig. 14

5.2.2 "RESET TO FACTORY" SUBMENU

The "RESET TO FACTORY" submenu enables to reset the controller software to the factory settings. To do so, proceed as follows:

1. Tap "RESET TO FACTORY" in the configuration menu. The following notification appears:

Fig. 15

2. Tap “RESET AND DELETE ALL DATA”.
A new notification appears (Fig. 16).

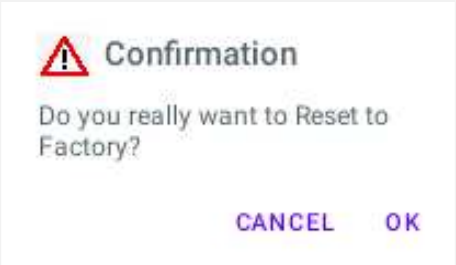


Fig. 16

3. Tap “OK” to confirm the reset.

Once the controller has been reset, the following window appears:

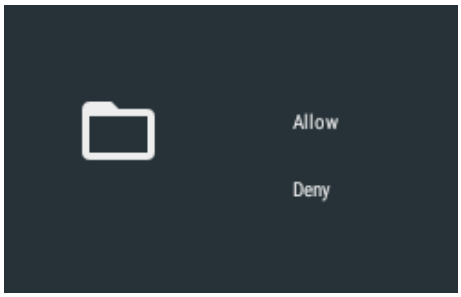


Fig. 17

4. Tap “Allow” to restart the system.
The progression status is displayed in a new window (Fig. 18).

Fig. 18

When tapping “Deny”, the controller does not know where to find a runnable app. In this case, it is necessary to tap “Allow” again.

5. Once the system startup has been successfully completed, the following window appears:

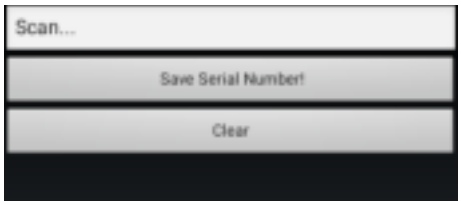


Fig. 19

6. Tap “Scan” and enter the controller serial number in the next window (Fig. 20), then tap or “DONE”.

Fig. 20

7. Finally, tap “Save Serial Number!” to start the controller.

Fig. 21

The controller starts up and displays the main menu (Fig. 6).

5.2.3 “RESET DATABASE” SUBMENU

The “RESET DATABASE” submenu enables to delete all data in the access database, without resetting the controller software version. To do so, proceed as follows:

1. Tap “RESET DATABASE” in the configuration menu. The following notification appears:

Fig. 22

2. Tap “RESET AND DELETE ALL CONTENTS”.
   A new notification appears (Fig. 23).

Fig. 23

3. Tap “OK” to confirm the reset.

   Once the database has been reset, the main menu appears on the display again.

5.2.4 “ADB” SUBMENU

“ADB” is a specific function that enables to debug the controller. By default, the ADB function is off and must be activated manually to start the debugging process. After each debugging, the ADB function must be deactivated again.

Proceed as follows to debug the controller:

1. In the configuration menu (Fig. 8), tap “ADB”. The following window appears:

Fig. 24

2. Tap “ADB ON” and continue the debugging process from your PC.

3. Finally, turn the ADB function off by tapping “ADB OFF” in the status window (Fig. 25) when the debugging process has been completed.

Fig. 25

5.2.5 “OTG USB” SUBMENU

“OTG USB“ is another specific function that enables to connect an external device to the controller per USB, e.g. a scanner of a keyboard. This might be necessary, for example to enter the controller serial number after reset.

Proceed as follows to enable the connection of an external device using the “OTG USB” function:

1. In the configuration menu (Fig. 8), tap “OTG USB”. The following window appears:

Fig. 26

2. Tap “OTG USB ON”, then confirm with “OK” when the following notification appears:

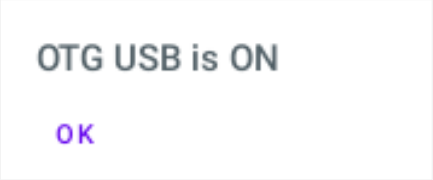


Fig. 27

3. To disable the “OTG USB” function, tap “OTG USB OFF” in the status window (Fig. 28).

Fig. 28

5.2.6 “SCREEN SAVER” SUBMENU

The “SCREEN SAVER” function enables to save energy by switching the display backlight off after 60 seconds of inactivity.

To do so, proceed as follows:

1. In the configuration menu (Fig. 8), tap “SCREEN SAVER”. The following window appears:

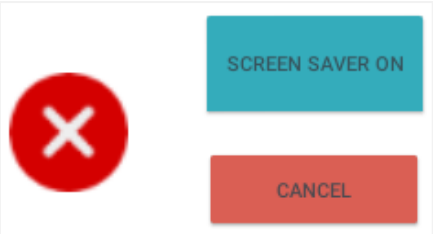


Fig. 29

2. Tap “SCREEN SAVER ON”, then confirm with “OK” when the following notification appears:

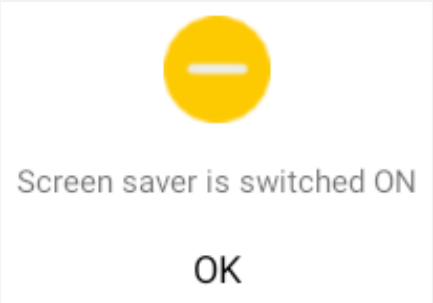


Fig. 30

3. To disable the “SCREEN SAVER” function, tap “SCREEN SAVER OFF” in the status window (Fig. 31) and confirm with “OK” (Fig. 32).

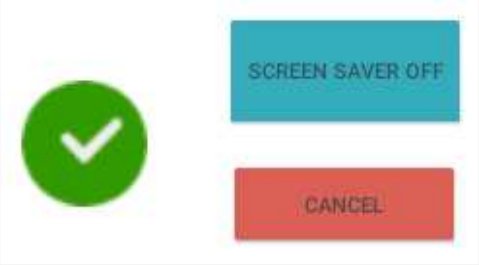


Fig. 31

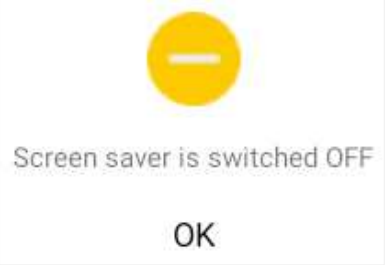


Fig. 32

The display backlight switches on again.

5.3 CONFIGURATION VIA SECPASS INSTALLER APP

Alternatively, the controller can also be configured with the Secpass Installer app installed on an Android device (smartphone, tablet).

To do so, proceed as follows:

1. In your mobile device settings, go to Network & internet and turn WiFi on.
2. Select the network corresponding to your controller serial number (e.g. Secpass-Test123).
3. Enter the password (ettol123) and tap “Connect”.
4. The Secpass Installer app opens on your mobile device (Fig. 33).

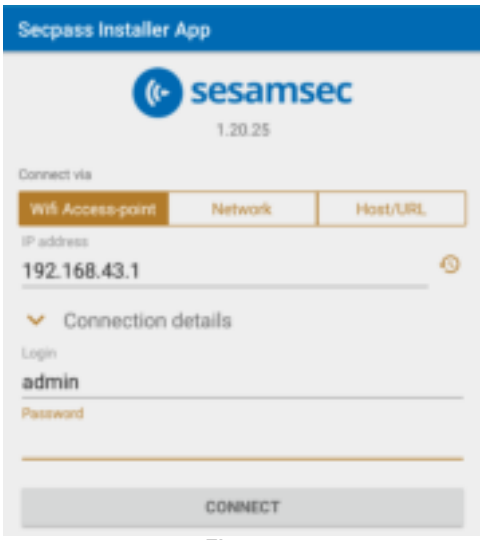


Fig. 33

The Secpass Installer app offers different options for a quick and easy configuration of the controller. The table below gives a short overview of these options:

Basic configuration	Seamlessly set up crucial parameters such as date, time, and more, ensuring the door controller operates flawlessly within your environment.
Network configuration	Effortlessly configure network settings, enabling seamless connectivity between the door controller and your infrastructure.
Backend integration	Enter the necessary credentials in the app, enabling the door controller to securely log into the powerful sesamsec cloud backend, where comprehensive access control management awaits.
Access control point and relay programming	Define and program access control points and relay control, empowering you to tailor door opening mechanisms according to your specific requirements.
Controller input configuration	Efficiently configure controller inputs, providing real-time monitoring of doors and enhancing security measures.

Refer to the sesamsec website (www.sesamsec.com/int/software) for more information.

6 COMPLIANCE STATEMENTS

6.1 EU

Hereby, sesamsec GmbH declares that Secpass complies with Directive 2014/53/EU.
The full text of the EU declaration of conformity is available at the following internet address: sesamsec.me/approvals

APPENDIX

A – Relevant documentation

sesamsec documentation

- Secpass data sheet
- Secpass instructions for use
- sesamsec guidelines for PAC installations (*Zutrittskontrolle – Installationsleitfaden*)

external documentation

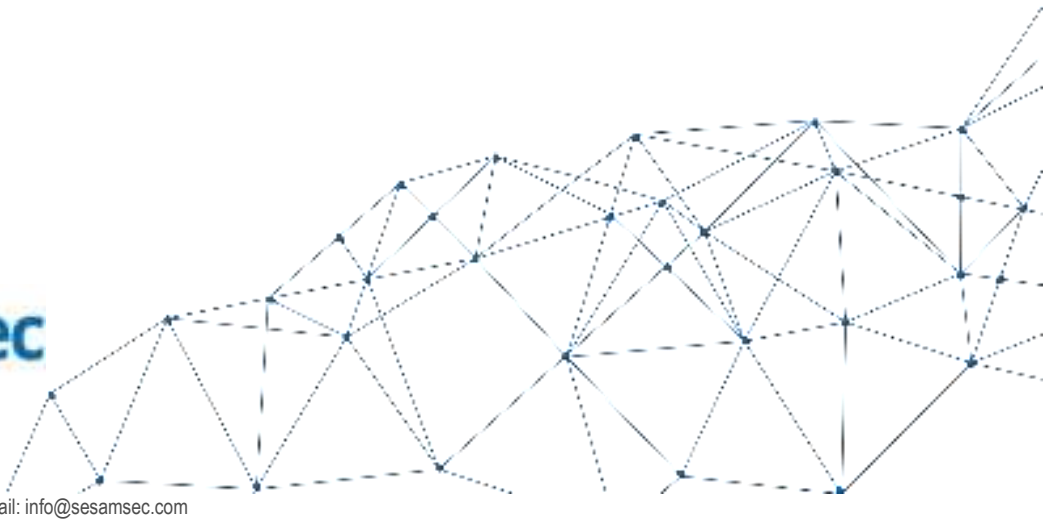
- Technical documentation related to the installation site
- Optionally: Technical documentation related to connected devices

B – TERMS AND ABBREVIATIONS

TERM	EXPLANATION
ESD	electrostatic discharge
GND	ground
LED	light-emitting diode
PAC	physical access control
PE	protective earth
RFID	radio frequency identification
SPD	surge protection device

C – REVISION HISTORY

VERSION	CHANGE DESCRIPTION	EDITION
01	First edition	10/2024



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