Escape route technology

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Escape Door Control Terminal

Typ 1383/1384/1385/1385T

effeff

ASSA ABLOY

Fitting and Installation Instructions

D0055805

ASSA ABLOY, the global leader in door opening solutions

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Firmware V. 2.8
FT Manager V. 3.8 and above
FT Server V. 3.8 and above
901-20 V. 2.0 and above

Content

Description

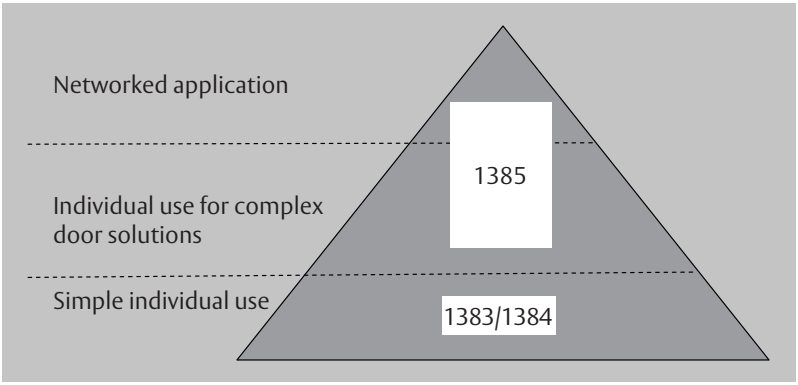
Innovation

In developing the new generation of FT, particular importance was attached to:

- Forward-thinking innovation
- Versatile range of uses
- Operational and functional elements integrated into a compact design
- Wide range of functions due to networking of devices
- Options for integration into building and alarm management systems
- High operational reliability
- Less time and effort to install and configure the system
- Use of standard switch boxes

Functions

Overview



- Escape door unlocked using integrated emergency button
- Escape door unlocked externally, by a fire alarm system, for instance
- Permanent release using internal key push-button or an external contact, such as a timer switch
- Temporary release using internal key push-button or externally connected push-button
- Escape door locking status signalled by door status indicator
- Alarm status indicated by an optical and audible signal

Device *1383* (RS-485)
- For integration into an EAC system via RS-485 interface.
- Commissioning and configuration with the integrated key switch.
- Cannot be extended

Device *1384* (offline version)
- A simplified individual stand-alone system not integrated into the building network
- Set-up operation and configuration using a key switch
- Cannot be extended

Device *1385* (stand-alone function)
- Set-up operation and configuration using a key switch
- Can be extended with I/O Module 901-20.
- Implementation of a wire-interconnected interlock function.

Device *1385* (networked)
- Commissioning and configuration with ***FT Manager.***
- Can be configured using a key switch
- Can be extended with I/O Module 901-20.
- Up to 120 devices can be connected to the TSB Controller
- Delayed release after EMERGENCY-OPEN is activated (special function)

General

Introduction

ASSA ABLOY Sicherheitstechnik GmbH's extensive experience, and state-of-the-art production and testing procedures ensure the device is highly reliable.

These fitting and installation instructions have been compiled for skilled electricians and trained personnel. They are designed to enable you to install and operate the device safely, and fully exploit the permitted range of uses the control terminal has to offer.
It also provides information regarding how key components work.

Additional information
These instructions describe both device types ***1383, 1384*** and ***1385*** with individual differing characteristics indicated where required.

Symbols used in these instructions

The signs and symbols in these operating instructions are designed to help you use the devices and instructions quickly and safely.

Additional information
This symbol indicates additional information which is useful when handling devices.

Warning about a general hazard
This warning symbol indicates tasks where hazards may arise or device functions may be impaired due to different causes.

➲ **Step in procedure**
The specified sequence of steps will make it easier for you to use the device safely and correctly.

✓ **Result**
This indicates where the end result of a sequence of steps is described.

Packaging and storage

Our devices are carefully packed to ensure adequate protection during shipment.
When you receive your device, you must check the device and its packaging to ensure that the device is complete and undamaged.

Risk of injury
The device must not be used if it is damaged.
Damaged cables and connector assemblies also represent a safety hazard and must not be used.

Environmental protection

Packaging materials must be recycled. Local environmental protection regulations must be complied with.

Intended use

The device is designed to create an escape door control system. It can be operated as a stand-alone control unit or within a building network (***1385*** only). It is not intended for any other type of use.

Additional information
Device ***1383*** can be used as a stand-alone or networked unit.
Device ***1384*** is designed as an offline unit and cannot be extended.
Device ***1385*** can be used as a stand-alone or networked unit. An I/O extension module can be connected in stand-alone mode.

Warranty

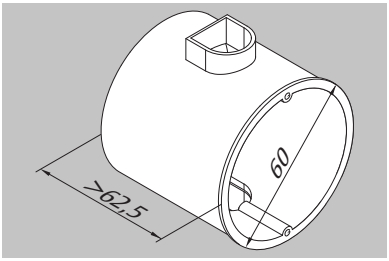
We provide a warranty for this device valid from the date of purchase in accordance with statutory/country-specific regulations. If any damage is incurred, the unit will be repaired or a replacement supplied.
Any damage caused through natural wear, overloading or incorrect use are excluded from the warranty.

Installation

Regulations

- In accordance with ‚Guidelines for electronic locking systems in escape route doors', the escape door control module must be positioned in such a way that the emergency push-button is placed between 850 mm and 1200 mm above the finished floor level (FFL). Further regulatory requirements can be found in respective local building ordinances.
- German Electrical Engineering Association (VDE) and local electricity company regulations must be observed.
- It must be possible to disconnect the device from the power supply circuit using an easily accessible energy-isolation device.
- Electric locking systems can only be used on smoke or fire doors if the door's product use certification states such systems can be used. Systems must be installed as required by the certification. Exception: Elements which may also be fitted to ready manufactured fire protection barriers.

Preparatory tasks



The escape door and key switch module is installed in standard flush-mounted switch boxes.

➲ Install standard flush-mounted boxes according to requirements.

Providing power supply

A low safety voltage between +12V -15% and +24V +15% must be supplied to operate the device in accordance with DIN 60 950. Using the mains adapter type 1003FT-24-05 is ideal. It is suitable for standard switch boxes (see separate fitting and installation instructions). The required power supply can then be fed directly from this unit.

Selection of cabling

Control circuits

Identifier	Value
Length	max. 300 m
Length of cabling to locking unit	max. 100 m
Cable cross-section	Choose a cable which will ensure the voltage in the locking unit stands at a maximum of 10% under the locking unit's specified rated operating voltage when it is working to full capacity and while taking into account all other losses such as potential voltage drop in the feed cable.

TS bus lines (*1385*)

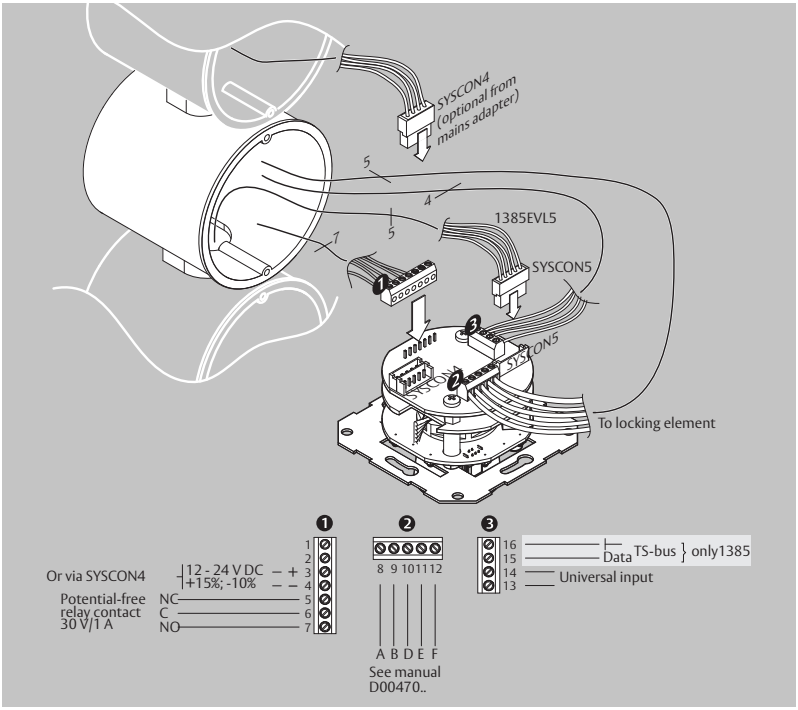
Identifier	Value
Length	max. 1000 m
Resistance to bus devices	max. 65 Ω
Special considerations	Use separate line
Type	JY (St) Y
Cable cross-section	Min. 0.28 mm² Ideal 0.5 mm² Only use one wire in each line Do not connect wires in parallel

Cabling

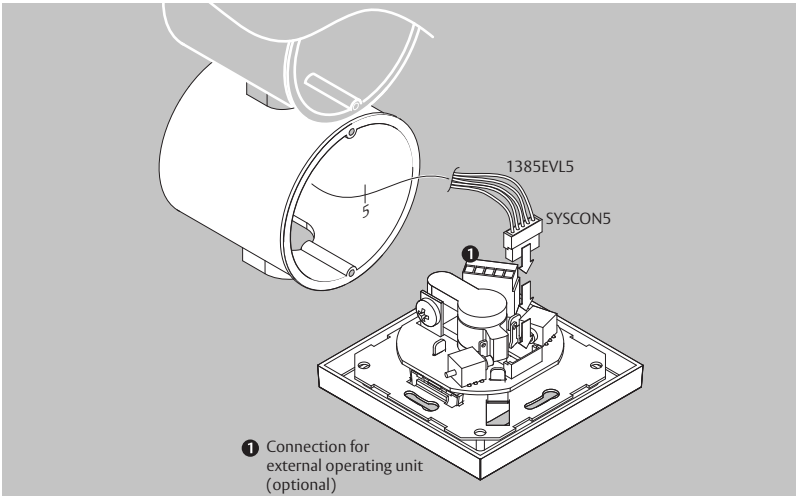
Supply lines must be:

- fed through holes in the flush-mounted switch boxes
- fed and secured behind or next to the modules

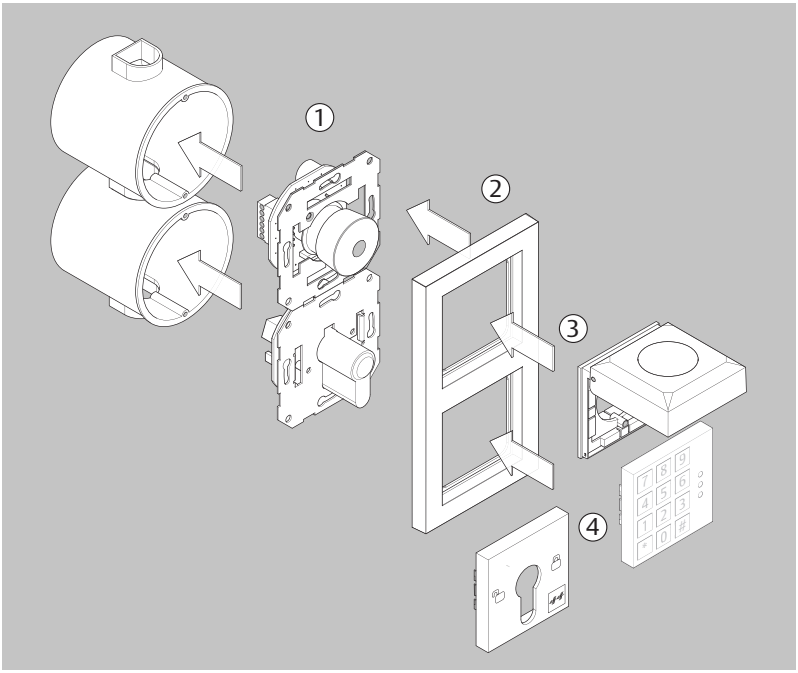
Connecting the escape door module



Connecting the key switch module

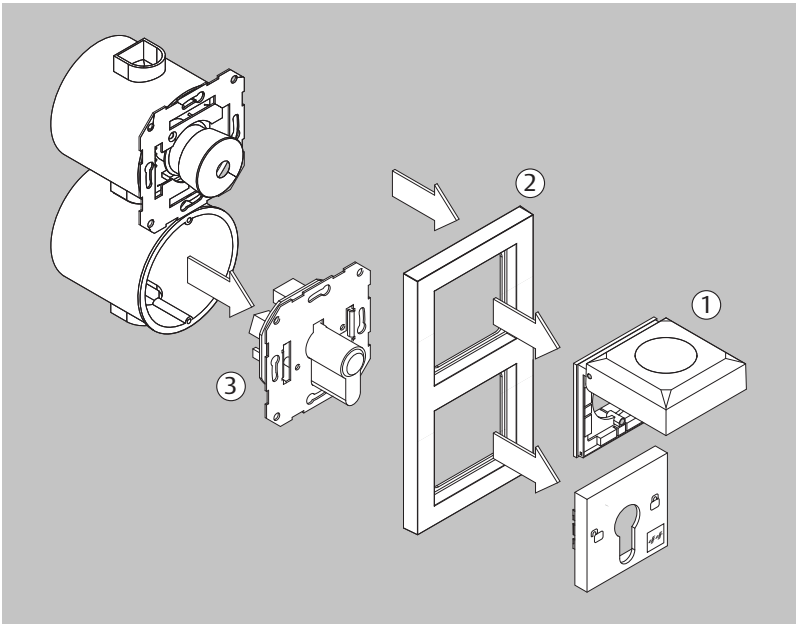


Fitting the escape door control module

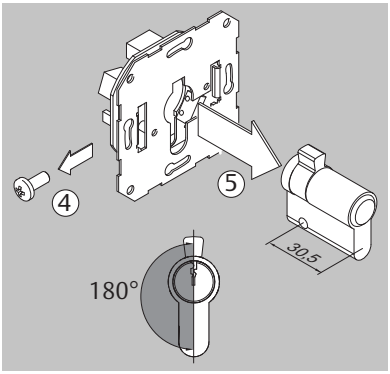


➲ Install all components as indicated in the diagrams.

Replacing the profile half cylinder



➲ Disassemble all components as indicated in the diagrams.

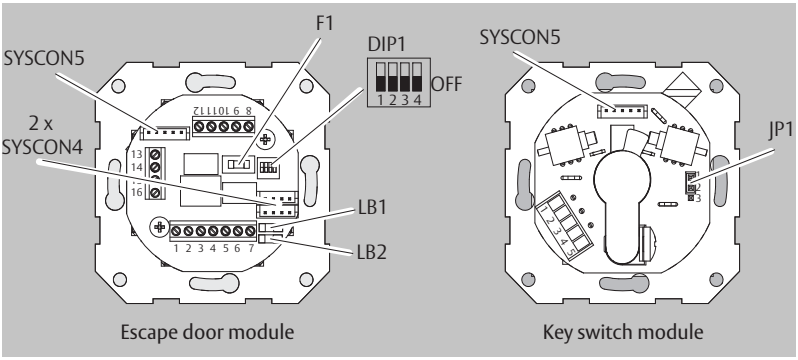


➲ Undo the cross-head screw which fastens the profile half cylinder.
➲ Take out profile half cylinder through the front and replace with a suitable new cylinder.
➲ Fasten cylinder with cross-head screw.
➲ Check locking lever settings (both push-buttons must be activated).

➲ Re-install all components and carry out a functions check.

Installation and connection

View of circuit boards



DIP1

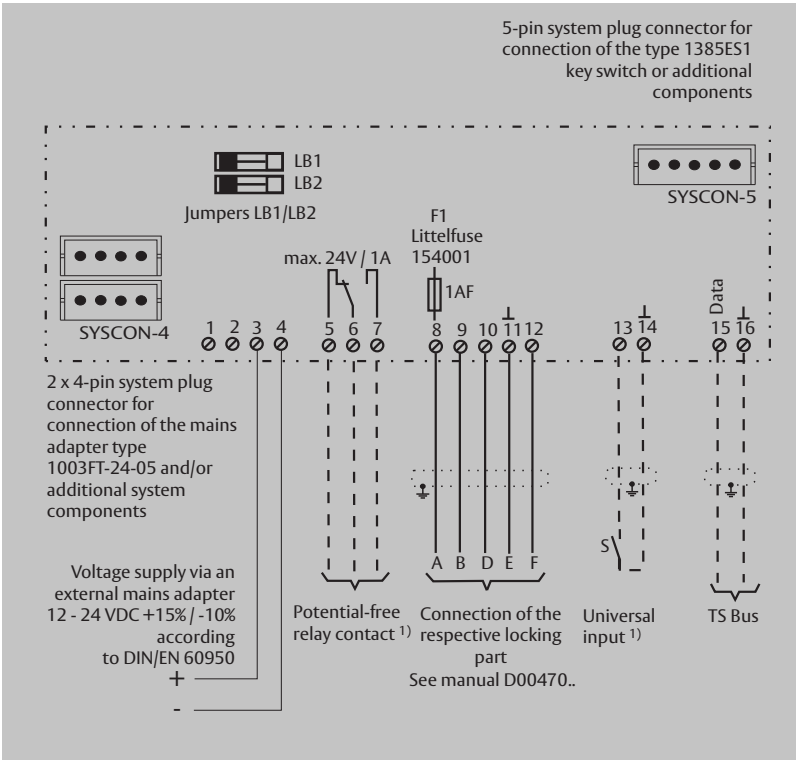
All switches set to the OFF position by default in the factory

Switch	Function	OFF	ON
1	Hi-O: Bus termination	No function assigned: Reserved for extension at a later date	
2	Hi-O: Group		
3	TS bus: Master/Slave (***1385***)	**Slave** (For stand-alone operation **without** I/O extension and networked operation)	**Master** with Address 1 *) (For stand-alone operation **with** I/O extension
4	Configuration mode (set according to hardware if no key switch is being used)	OFF	ON

*) If an I/O extension is used, this must be assigned to address **'2'**.

Individual escape door module *1385E1N*

Circuit diagram



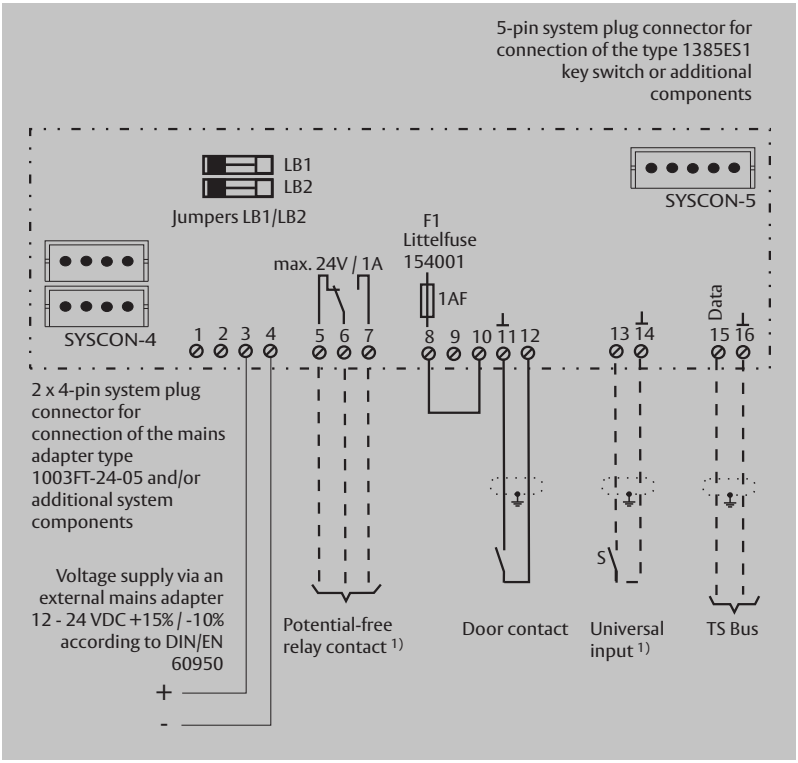
1) Connections have different functions depending on the configuration (see the ‚Configuration' section).

Individual escape door module 1*385E1T*

The escape door module 1385E1T is designed

- for door monitoring with a door contact and
- as an escape door module with central EMERGENCY OPEN switch.

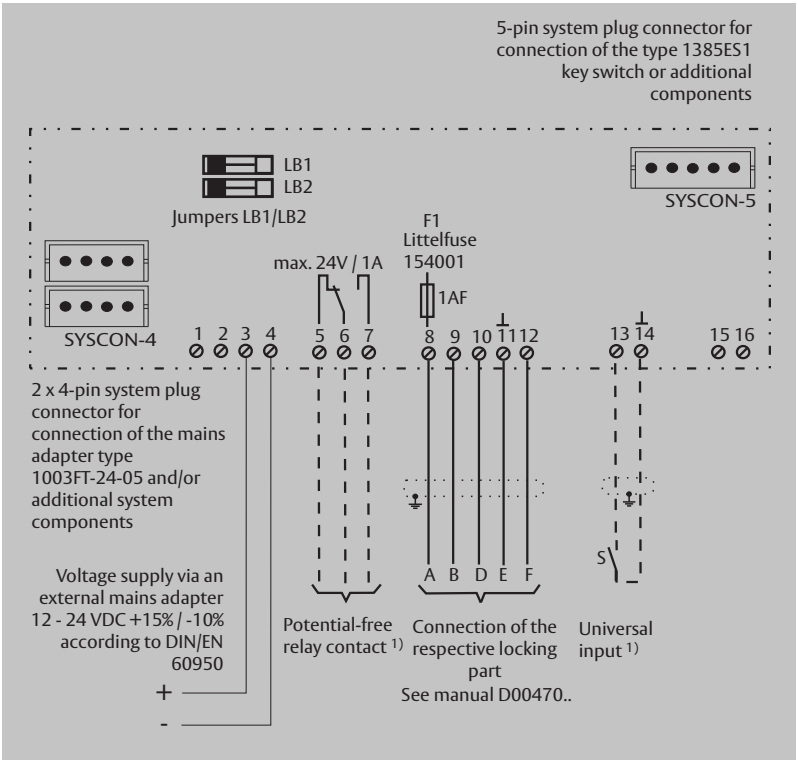
Circuit diagram



1) Connections have different functions depending on the configuration (see the ‚Configuration' section).

Individual escape door module *1384E1N*

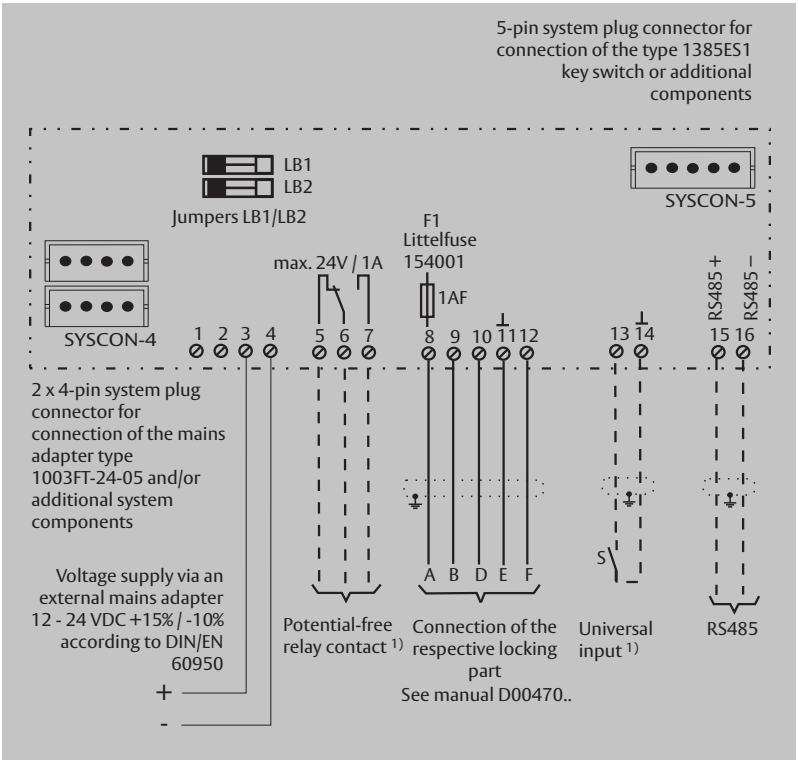
Circuit diagram



1) Connections have different functions depending on the configuration (see the ‚Configuration' section).

Individual escape door module *1383E1N*

Circuit diagram



1) Connections have different functions depending on the configuration (see the ‚Configuration' section).

Additional information

The factory setting for the participant address is 1 for escape door module ***1383E1N / 1383E2N***.

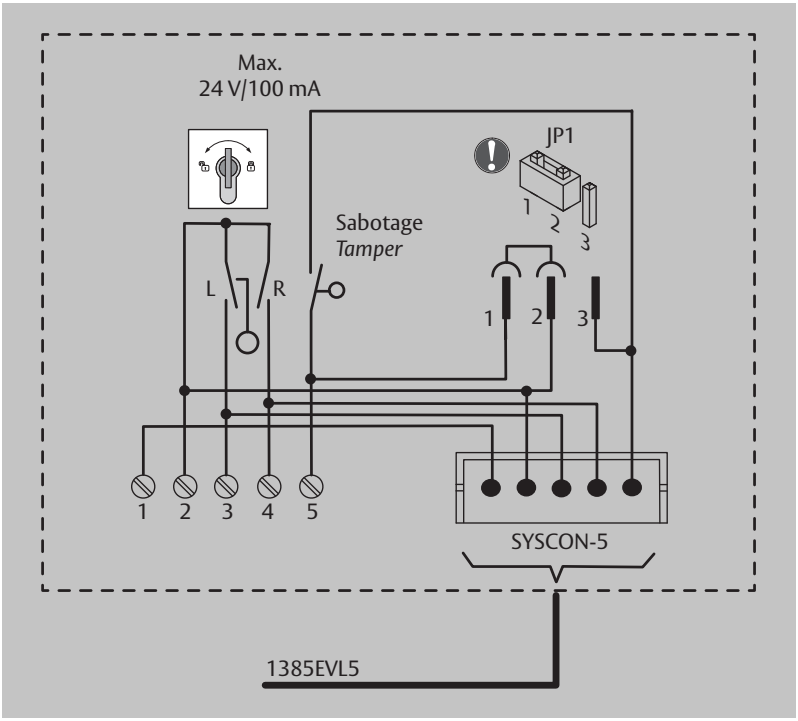
A different participant address is only necessary in special cases. This can be set manually with the key switch. The procedure is described in the chapter *Configuration - Change TSB address.*

1383E1N = ASSA ABLOY Interface protocol FT1

1383E2N = ASSA ABLOY Device Protocol AADP

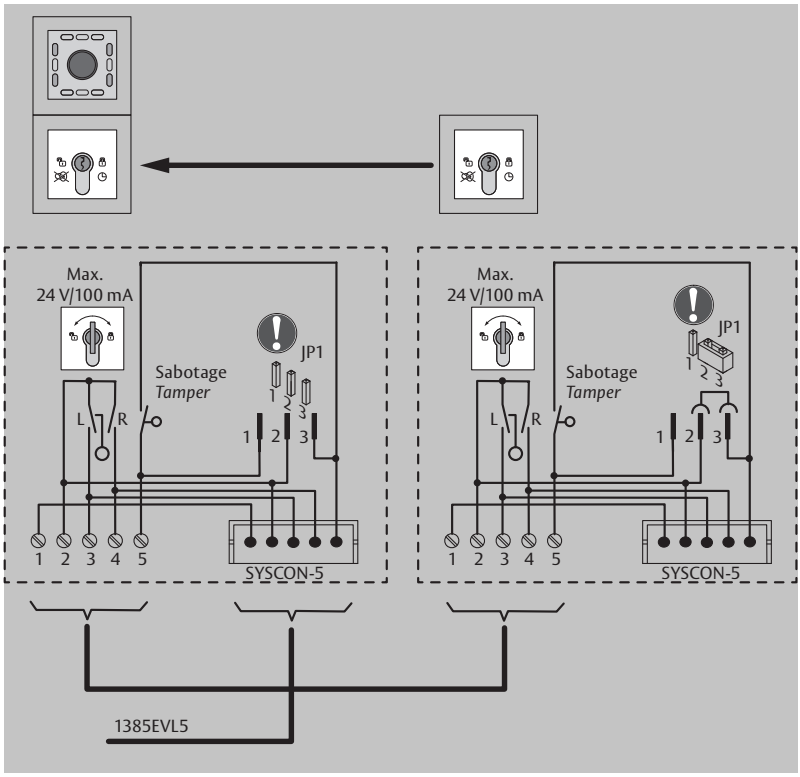
Key switch module Individual 1385ES1

Circuit diagram



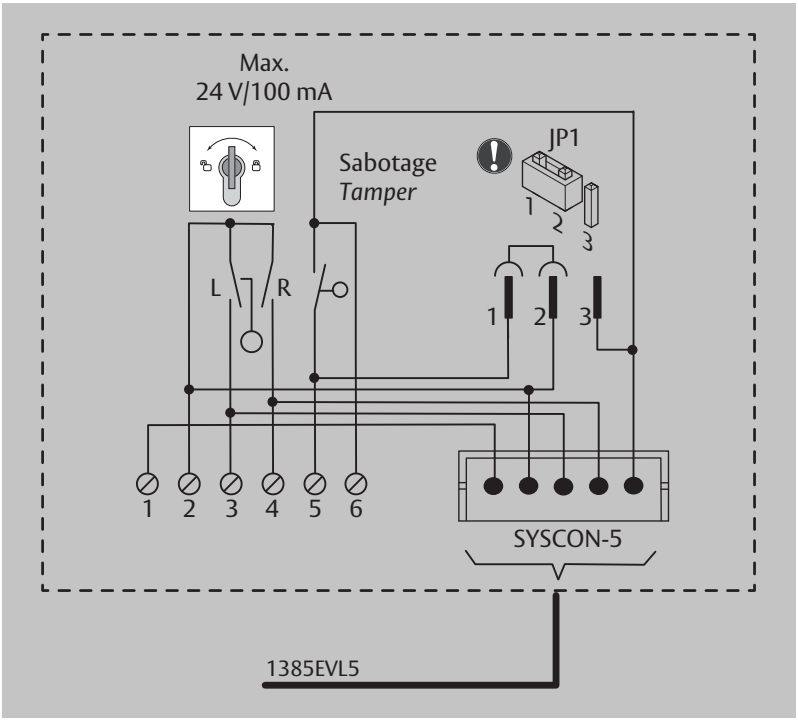
Key switch module 1385ES1 in parallel

Circuit diagram



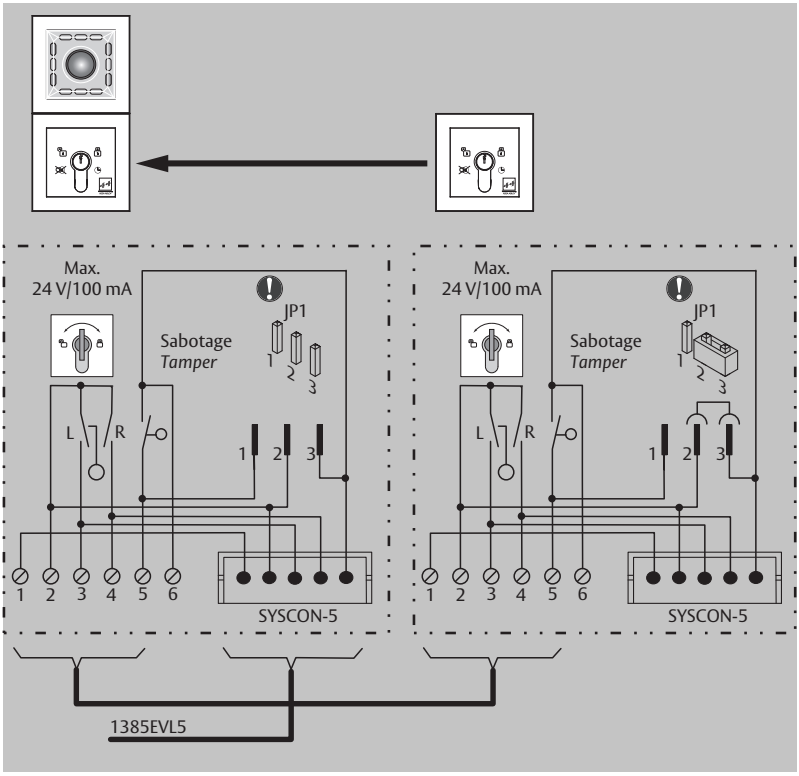
Key switch module Individual 1385ES2

Circuit diagram



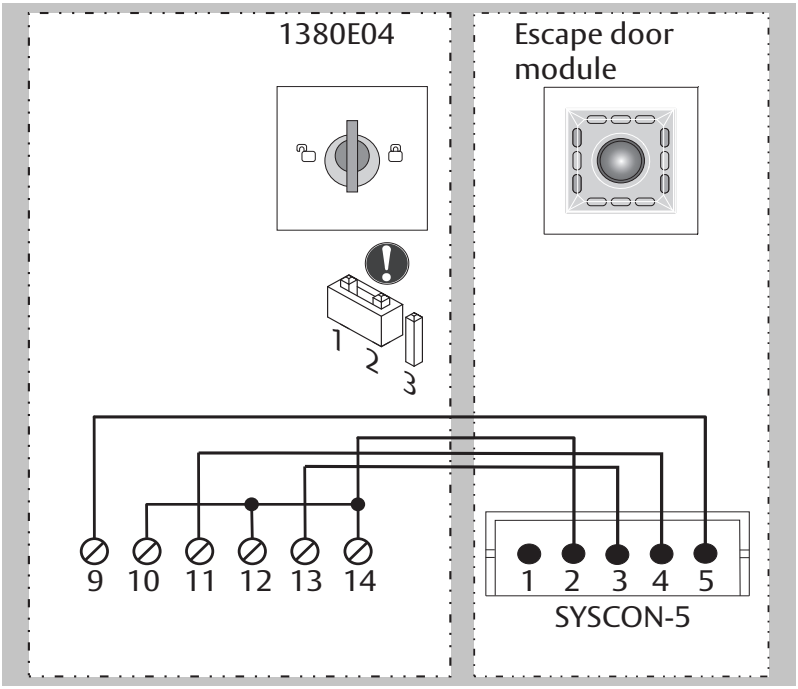
Key switch module 1385ES2 in parallel

Circuit diagram



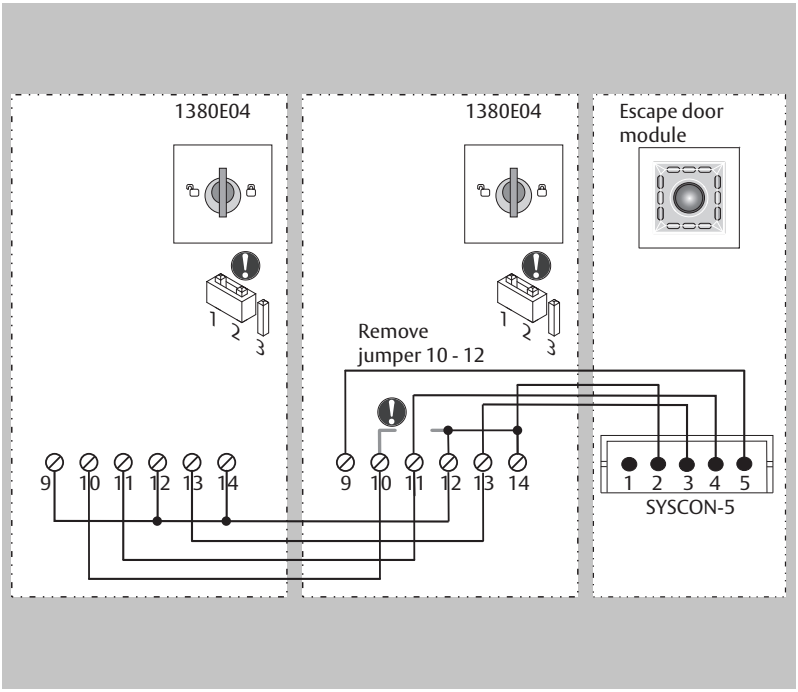
Key switch module Individual 1380E04

Circuit diagram



Key switch module 1380E04 in parallel

Circuit diagram



Locking elements

For circuit diagrams, see manual D00470.

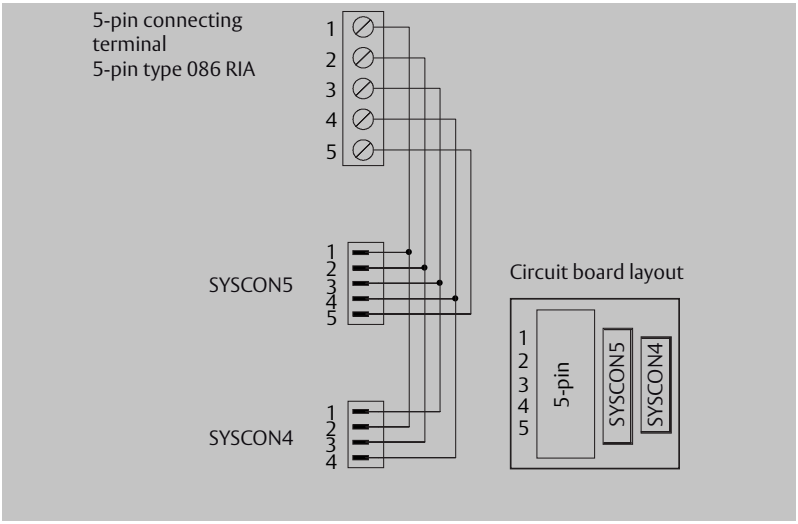
Adapter circuit board 1385EAP

Connection of connecting line SYSCON4 or SYSCON5 to permanent wiring.

Additional information

Do not use SYSCON4 and SYSCON5 together at the same time.
An external switch contact (control element) is connected in accordance with the use specifications table.

Circuit diagram



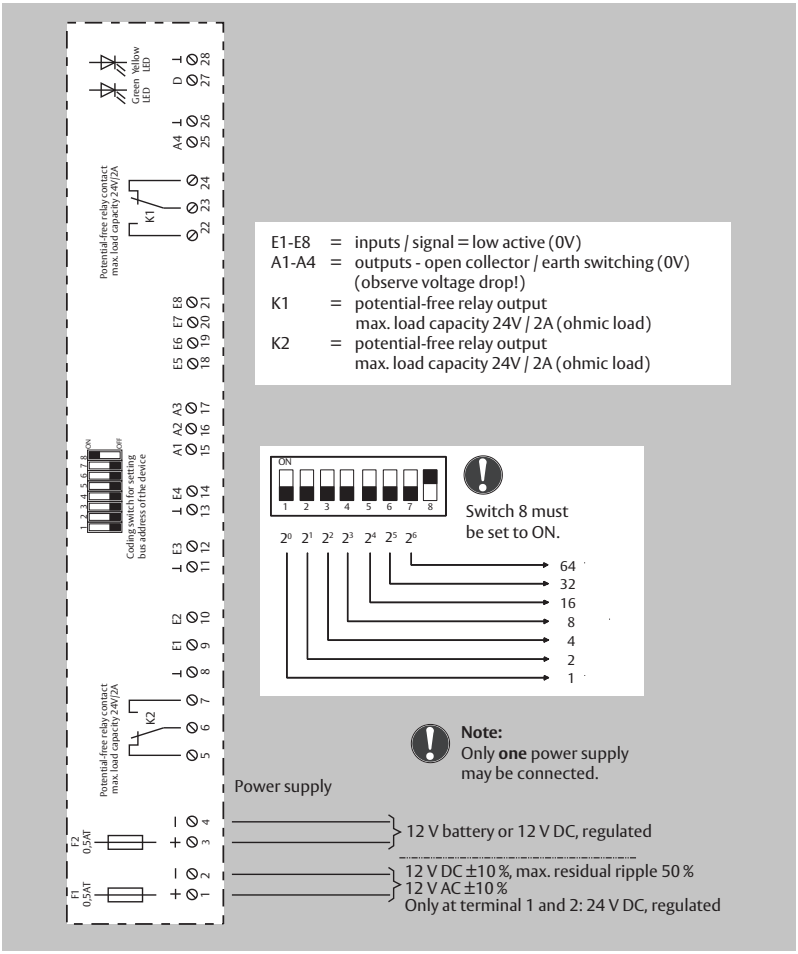
Terminal assignment

Screw terminal	SYSCON 5	SYSCON 4
1	+12 V DC – +24 V DC corresponding to the voltage supply	+12 V DC – +24 V DC corresponding to the voltage supply
2	0 V	CAN-H
3	Key switch, left	CAN-L
4	Key switch, right	0 V
5	Tampering contact	

I/O extension module 901-20

Device ***1385*** can be extended with E/A Extension Module 901-20 to include further switching operations.

Circuit diagram



Configuration using the *1385*

DIP switch	networked	stand-alone
1	Address	off
2		on
3		Profile number
4		
5		off
6		off
7		off
8	Networked operating mode = on	Stand-alone operating mode = off
Note:	A TS bus controller is required.	The ***1385*** must be set to master operation (***1385***: DIP 3 = on)

Additional information
If configuration is carried out using ***FT Manager***, always select Profile **‚0'** (called functions templates in ***FT Manager***) as it is the only place where changes can be saved.

Profiles when using the *1385* (stand-alone)

Profile	DIP switch		Function
	3	4	
0	off	off	Link to higher level systems (factory setting)
1	off	on	Door drive
2	on	off	Door control
3	on	on	Interlock

Terminal assignments 901-20

Profile 0 - Link to higher level systems

Connections	Description	Connections	Description
E1	Fire detector system (inverse)	**K1**	Released/locked signal
E2	Burglar alarm system/Interlock	**K2**	Alarm signal (inverse)
E3	Clock	**A1**	-
E4	Lock	**A2**	-
E5	Release	**A3**	-
E6	Release with delay	**A4**	-
E7	Temporary release		
E8	-		

Profile 1 - Door drive

Connections	Description	Connections	Description
E1	Fire detector system (inverse)	**K1**	Door drive - Automatic operation
E2	Burglar alarm system/Interlock	**K2**	Door drive - Activation
E3	Clock	**A1**	-
E4	Lock	**A2**	-
E5	Release	**A3**	-
E6	Release with delay	**A4**	-
E7	Temporary release		
E8	-		

Profile 2 - Door drive

Connections	Description	Connections	Description
E1	Fire detector system (inverse)	**K1**	Electric door strike/ Motorized lock
E2	Burglar alarm system/Interlock	**K2**	Holding magnet
E3	Clock	**A1**	-
E4	Lock	**A2**	-
E5	Release	**A3**	-
E6	Release with delay	**A4**	-
E7	Temporary release		
E8	-		

Profile 3 - Interlock

Connections	Description	Connections	Description
E1	Fire detector system (inverse)	**K1**	Door is interlocked
E2	Burglar alarm system/Interlock	**K2**	Door is closed and locked (inverse)
E3		**A1**	Block interlock
E4		**A2**	
E5		**A3**	
E6		**A4**	
E7			
E8			

Wire-interconnected interlock (*1385*)

This is a basic interlock door system with an emergency exit function without a central bus master (stand-alone).

Function

As soon as a door is temporarily released or disengaged, the corresponding opposite door (several doors also possible) is blocked and thus cannot be opened.

If the disengaged door is not opened before the pre-set temporary release interval has elapsed, it is automatically locked again.

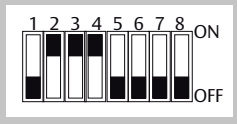
Additional information

The escape route is assured using a fail-unlocked system, i.e. in the event of a power failure, or unlocking by a fire alarm system or an EMERGENCY-OPEN switch, locking elements are disengaged and all doors can be opened at the same time.

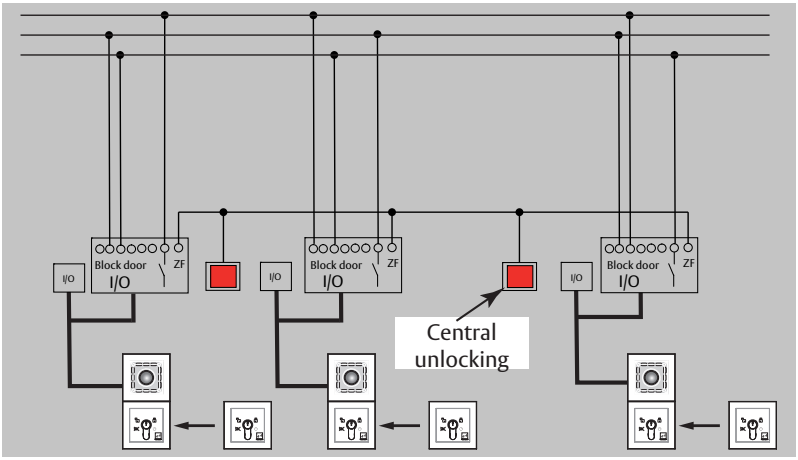
Requirements:

- Device ***1385*** in stand-alone mode (DIP switch 3 = ON)

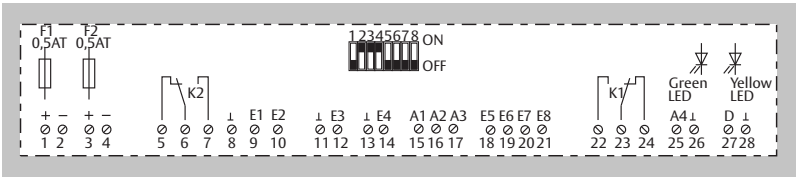
- E/A Extension Modules 901-20 with pre-set Profile **‚3‘** (also see ‚Terminal assignments 901-20, Profile **‚3‘**)



Circuit diagram overview



Terminal assignments 901-20



Output functions (A1 to A4)

- Block interlock. The corresponding opposite door(s) is/are blocked.

Output function K1 and K2

- ‚Door blocked' and ‚Door closed and locked' indicator displays.

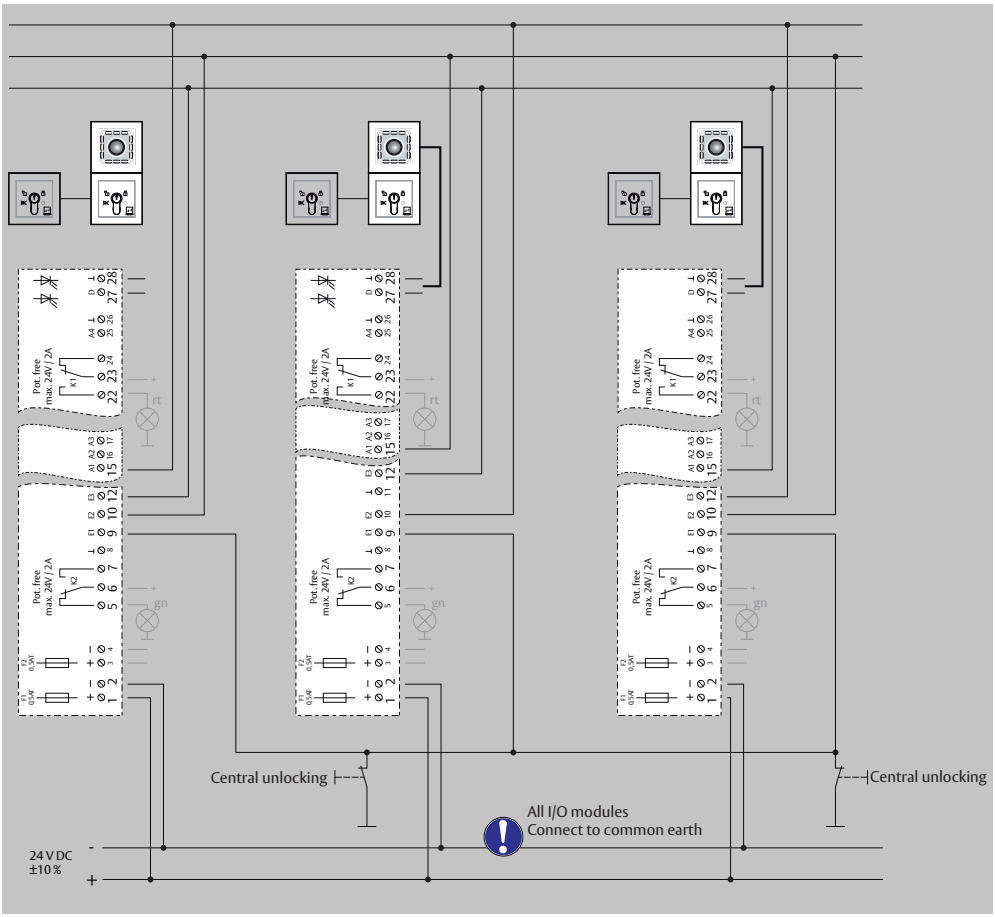
Input function E1

- Central release (for opening interlock in the event of a fault). The door is released centrally and a corresponding alarm is triggered.

Input functions (E2 to E8)

- Block door.

Detailed circuit diagram (example of use)



Set-up operation

Additional information
The installation and operation of electric locking devices on doors on emergency exit routes are subject to building authority regulations. Compliance must be ensured by both the fitter and the building operator.

General

Before initial commissioning:

- ➲ Check all elements, including those which disengage the locking device and its electrical connections, to ensure they have been installed and function according to regulations.
- ➲ Have correct installation and operational capability of the escape door locking device checked by technical specialists.
- ➲ Install ‚***FT-Manager***' software and check correct functioning (***1385*** - networked only).

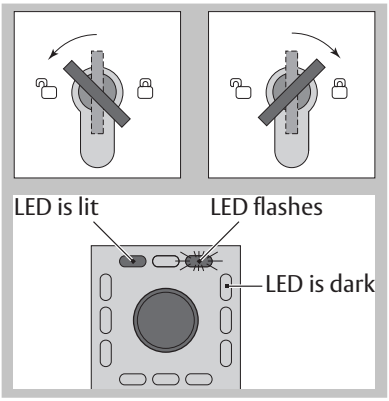
Switching on or return of power supply

When the system is turned on or there is a failure in the power supply, the position of the internal emergency switch and the status of all control inputs are queried and evaluated. The resultant system switching status is then directly dependent on these input parameters.
If an alarm is triggered after the system is switched on and the cause cannot be immediately identified, the cause can be established by looking at the LED colour combination on the escape door module (see table in the ‚Alarm signals' section).

Operation

Explanation of symbols

Symbols are used in the following. These mean:



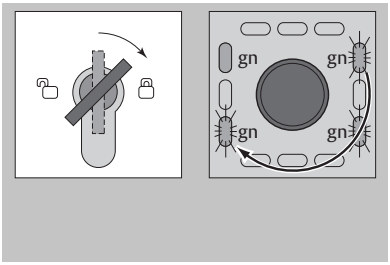
➲ Turn the key to the left/right.

✓ Indicator display.

Temporary release

The locked door can be unlocked for the pre-set temporary release time.

- The door can be opened during the temporary release time.
- The door can remain open for the duration of the door monitoring interval.
- Once the door monitoring interval is exceeded, the pre-alarm is triggered.
- Time intervals can be set as required (see ‚Change time intervals' section).

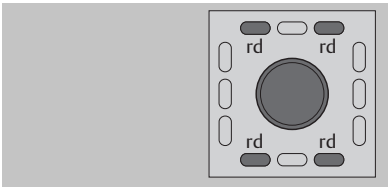


➲ Turn the key to the right.

✓ The door is released and can be opened.

✓ The left-hand upper LED lights up.

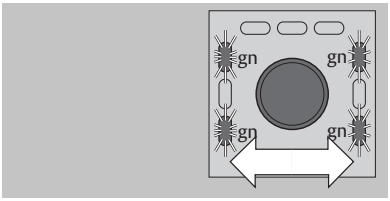
✓ The remaining green LEDs light up and go out one after another in a clockwise direction.



➲ Close the door within the pre-set door monitoring interval.
✓ The four red LEDs light up.
✓ The door is locked.

Pre-alarm

The pre-alarm is a reminder signal.
- This signal is time-limited.
- Time intervals can be set as required (see ‚Change time intervals' section).



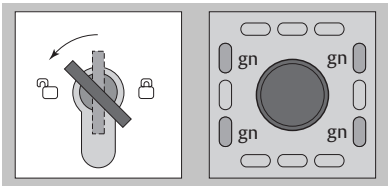
✓ The reminder signal is an audible intermittent signal.
✓ The four green LEDs flash in pairs.
✓ After the pre-alarm interval has elapsed, an alarm is triggered.

Pre-conditions for a pre-alarm:
✓ After a temporary release when the opened door is not closed again within the pre-set temporary release time.
✓ After a permanent release mode and a subsequent pre-set temporary release time interval have ended and the door is not closed.

If the door is closed within the pre-alarm interval, the pre-alarm ends and the door is locked.

Additional information
An alarm occurring during a temporary release or pre-alarm interval (e.g. emergency push-button is pressed) will be evaluated and signalled.

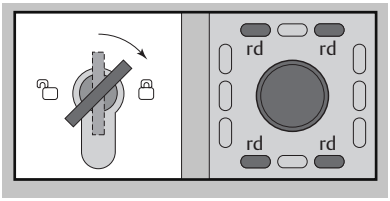
Permanent release



The door can be released.

➲ Turn the key to the left.
✓ The four green LEDs light up.
✓ The door is released.

Locking



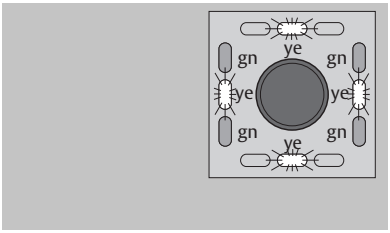
The door can be locked.

➲ Close door if required.
➲ Turn the key to the right.
✓ The four red LEDs light up.
✓ The door is locked.

Pre-conditions for locking:
✓ The door is closed.
✓ No alarm signal is present.

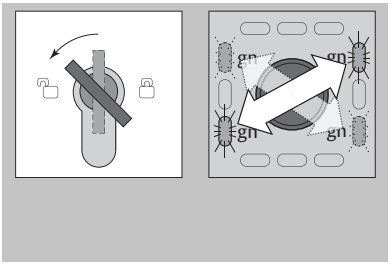
Danger alarm

The danger alarm is triggered when:
- By pressing the emergency button
- When activated by a fire alarm system



✓ The door is released immediately.
✓ An audible alarm signal is emitted.
✓ The green LEDs light up.
✓ The yellow LEDs and the EMERGENCY-OPEN switch flash.

Acknowledging the alarm and main alarm indicator:

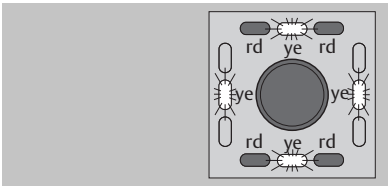


➲ Turn the key to the left.
✓ Alarm is acknowledged.
✓ The 4 green LEDs flash in pairs in a diagonal sequence.
✓ The alarm signal is indicated by an LED sequence pattern (see chapter "Alarm messages").

Tamper alarm

The tamper alarm is triggered:

- When the emergency button protective cover is opened
- By a door contact when a door is forced open
- When the cover on the key switch module is removed
- When the locking component is tampered with

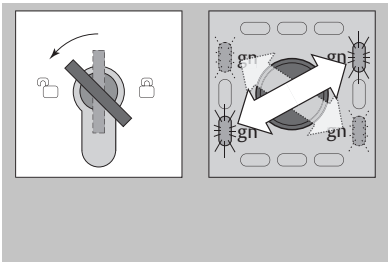


- ✓ An audible tamper alarm signal is emitted.
- ✓ The red LEDs light up.
- ✓ The yellow LEDs flash.

Additional information

The door remains locked in the event of a ‚tamper alarm'.
When a cover is closed or replaced again, the LED display and the audible alarm continue to function.

Acknowledging the alarm and main alarm indicator:

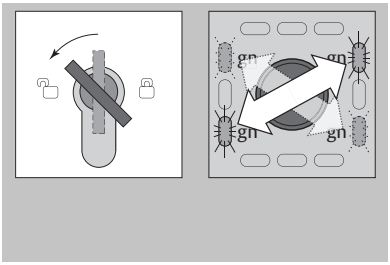


- ➲ Turn the key to the left.
- ✓ Alarm is acknowledged.
- ✓ The 4 green LEDs flash in pairs in a diagonal sequence.
- ✓ The alarm signal is indicated by an LED sequence pattern (see chapter "Alarm messages").

Multiple alarm Several alarm statuses can be evaluated and signalled at the same time.

Additional information
The 4 green LEDs continue to flash in pairs in a diagonal sequence if the cause of the alarm is still present after the alarm has been acknowledged. The door can only be locked again when all alarm statuses have been reset and the causes of the alarm have been remedied.

Acknowledging the alarm and main alarm indicator:



➲ Turn the key to the left.
✓ Alarm is acknowledged.
✓ The 4 green LEDs flash in pairs in a diagonal sequence.
✓ The alarm signal is indicated by an LED sequence pattern (see chapter "Alarm messages").

Configuration

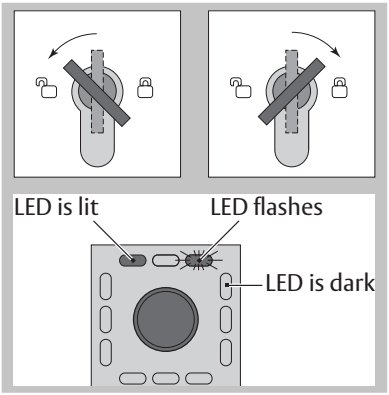
Additional information
A key switch is required to configure devices ***1383, 1384*** und ***1385***.
You can configure a networked ***1385*** either with a key switch or by using the ***FT Manager*** software within the building network (see separate ‚***FT Manager***' operating instructions).

General

The escape door control terminal is configured using a key switch, via the two switch contacts in the key switch module. The individual configuration modes and settings are displayed on the 12 different coloured LEDs on the escape door module.
Data is permanently saved. It is not lost in the event of a power failure.

Explanation of symbols

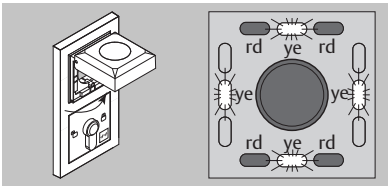
Symbols are used in the following. These mean:



➲ Turn the key to the left/right.

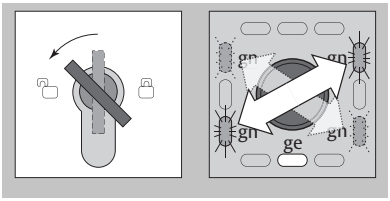
✓ Indicator display.

Switch on configuration mode

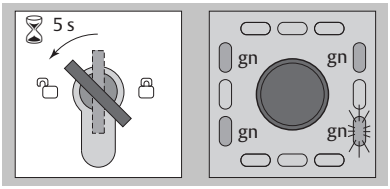


➲ Open the protective cover on the escape door module and leave open.
✓ The tamper alarm will be triggered.

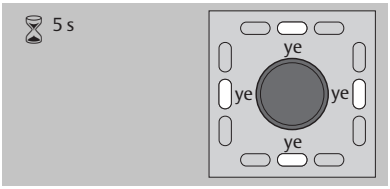
Additional information
The tamper alarm must remain active in order to access configuration mode.



➲ Turn the key to the left
✓ The audible signal will stop.
✓ The 4 green LEDs flash in pairs in a diagonal sequence.
✓ The lower yellow LED will light up.



➲ Turn the key to the left and hold for five seconds.
✓ Three green LEDs light up.
✓ The lower right-hand green LED flashes.

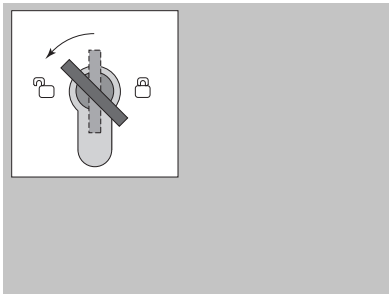


The display will change after five seconds.
✓ The four yellow LEDs light up.
✓ The configuration mode is now switched on.

Additional information

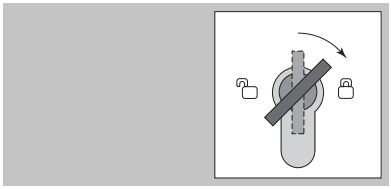
There is only one menu level. This means all menu items can be selected from here by briefly turning the key to the left to ‚start'; there are no submenus.

Advancing through menu items



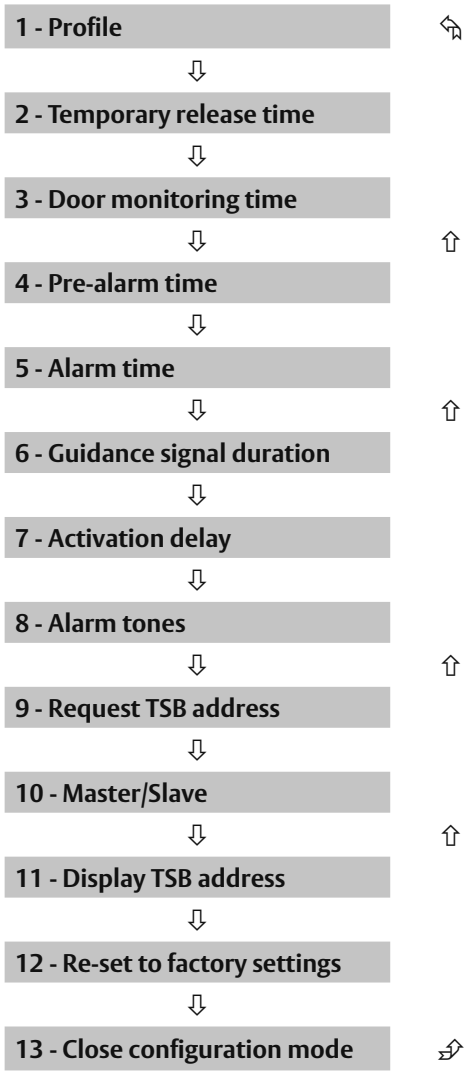
➲ Turn the key to the left.
✓ The following menu item is displayed.
✓ The LED display changes.
✓ A short audible signal acknowledges the key has been turned.
✓ A long audible signal acknowledges each time an input is accepted.

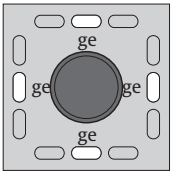
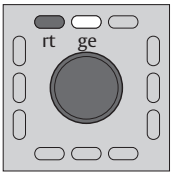
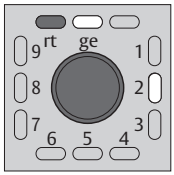
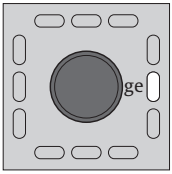
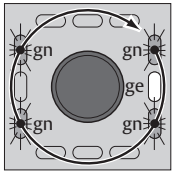
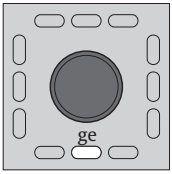
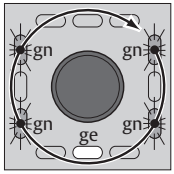
Defining settings in the menu

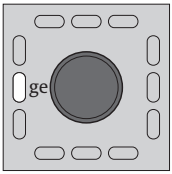
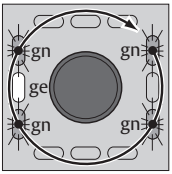
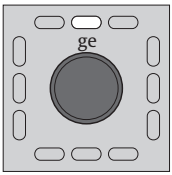
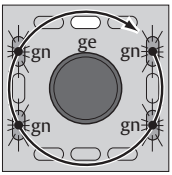
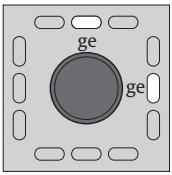
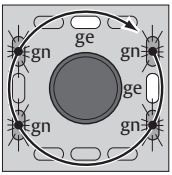
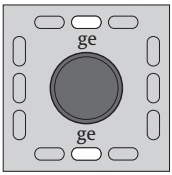
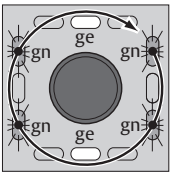


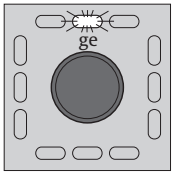
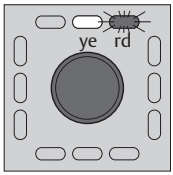
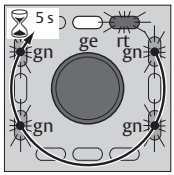
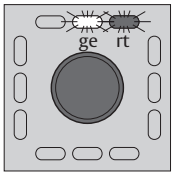
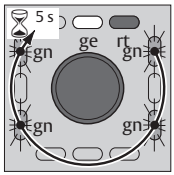
➲ Turn the key to the right.
✓ The LED display changes.
✓ A short audible signal acknowledges the key has been turned.

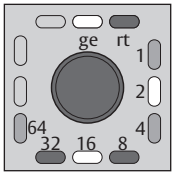
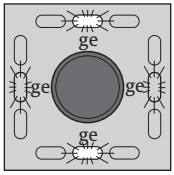
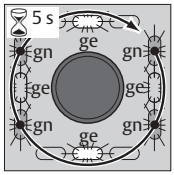
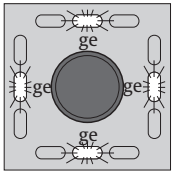
Menu structure



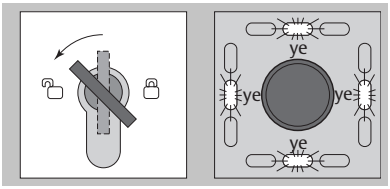
Menu items		Description		Configuration
Starting configuration mode		See 'Starting configuration mode' section		
Configuration mode switched on.		✓ The yellow LEDs light up.		
1 - Profile		Different profiles (**0** to **11**) can be selected with specially optimised pre-settings (see 'Profile settings').		➲ Turn Decimal display **0** = no LED **1** = LED1, etc. **10** = LED1 + 9 **11** = LED2 + 9
2 - Temporary release time		Door locked after temporary release time interval if the door remains closed.		➲ Hold Time freely adjustable. 1 complete turn = 1 second (max. 255 sec.)
3 - Door monitoring time		The time interval starts after the door has been temporarily released and opened.		➲ Hold Time freely adjustable. 1 complete turn = 1 second (max. 3600 sec.)

Menu items		Description		Configuration
4 - Pre-alarm time		Duration of pre-alarm until the device triggers the alarm.		➲ Hold Time freely adjustable. 1 complete turn = 1 second (max. 3600 sec.)
5 - Alarm time		After the alarm interval has elapsed, the audible alarm device is switched off.		➲ Hold Time freely adjustable. 1 complete turn = 1 second (max. 255 sec.)
6 - Guidance signal duration		After the time has elapsed, the guidance signal is switched off.		➲ Hold Time freely adjustable. 1 complete turn = 1 second (max. 9999 sec.)
7 - Activation delay		When the key is turned to the left: The door only unlocks when the key is held for the duration of the adjusted time. With the setting '0' there is no delay.		➲ Hold Time freely adjustable. 1 complete turn = 1 second (max. 255 sec.)

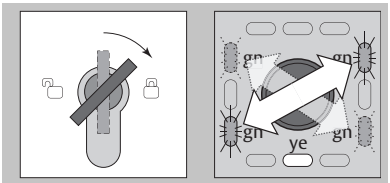
Menu items		Description		Configuration
8 - Alarm tones				No function assigned: Reserved for extension at a later date
9 - Request TSB address		The door control bus address is requested the first time the device is used (***1385***).		If the device is online (***1385***): ➲ Hold key in position for 5 sec.
		The system then automatically issues the next free address (***1385***). The device then automatically changes to the next but one menu item: 'Display TSB address'. The address '**1**' is automatically displayed in the case of the ***1384***.		The address is requested. ✓ A long audible signal is emitted when the address is identified.
10 - Master/ Slave		Display of current setting / address conflicts (***1385***) (see 'Master/Slave' section). Only the master is displayed in the case of the ***1384***.		Set device as master providing no other master is identified in the system (***1385***). ➲ Hold key in position for 5 sec.

Menu items		Description		Configuration
11 - Display TSB address		Binary display of the door control bus address Please read the 'Display TSB address, description' section.		
12 - Re-set to factory settings		The device has been re-set to factory settings. ✓ The yellow LEDs flash alternately in pairs.		➲ Hold key in position for 5 sec. ✓ A long audible signal follows.
13 - Close configuration mode		✓ The yellow LEDs flash.		

Ending configuration mode



➲ Turn the key to the left while in configuration mode until the four yellow LEDs flash (**13 - Close configuration mode**).



➲ Turn the key to the right.
✓ A long audible signal is emitted.
✓ The 4 green LEDs flash in pairs in a diagonal sequence.
✓ The lower yellow LED lights up
➲ Close the protective cover again

Automatic change from configuration mode

If no input takes place within one minute while in configuration mode, the device automatically switches to operational mode.
✓ Several short audible signals are emitted.

Change times

The individual times can be set for the following menus:

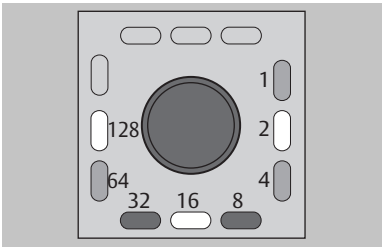
- Period of time system unlocked
- Temporary release time
- Pre-alarm time
- Alarm time
- Guidance signal duration
- Activation delay

Procedure:

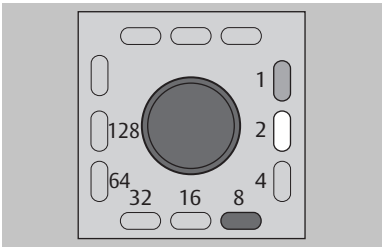
➲ Turn the key to the right and hold.
Hold the key for the desired length of time.
✓ During this time:
the four green LEDs ‚run' in clockwise motion.
One rotation takes one second.
✓ An audible signal sounds for each second.
➲ When the desired time is reached:
Turn the key to the left to save the time.
✓ An audible signal sounds.

Display TSB address

The TSB address is displayed on request as LED sample binary code:



Individual LEDs are assigned binary numbers.
To determine the TSB address, only the values of the illuminating LEDs have to be added.
If no LED illuminates, the address is 0.



Example on the left:
The LEDs light up with the values 1 + 2 +8.
✓ Therefore the TSB address is 11.

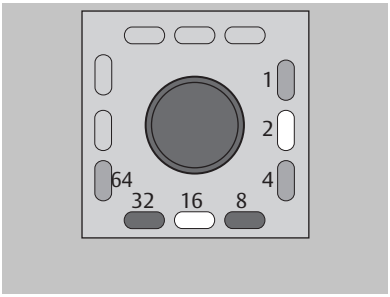
Change TSB address

The adjustment of the TSB address takes place in 6 steps:

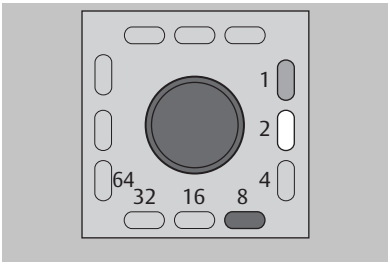
Note (*1385 only*)
The link to a connected TSB controller must be disconnected.

Additional information
The factory setting for the participant address is 1 for escape door module ***1383E1N***.
A different participant address is only necessary in special cases. This can be adjusted manually with the key switch. The procedure is described below.

1. Determine the desired LED pattern of the TSB address.
2. Switch on configuration mode.
3. Switch on Menu 9 „Change TSB address“.
4. Adjust LEDs according to the LED pattern (=address).
5. Save LED pattern (=address).
6. Switch off configuration mode.



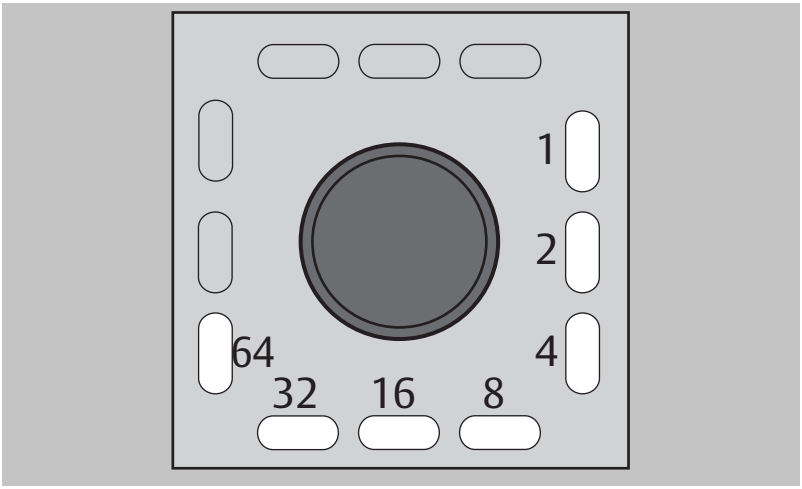
Individual LEDs are assigned binary numbers. A cumulative value between 0 and 255, which corresponds to the TSB address, is indicated depending on which LEDs light up.
If no LED lights up, then the total is 0. That corresponds to the TSB address 0.



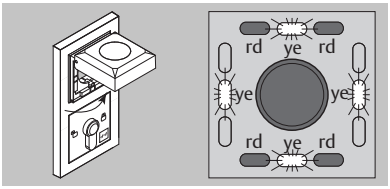
For example,
The LEDs light up with the binary values
1 + 2 +8.
✓ This results in a cumulative value of 11.
That means it is set to Address 11.

Step 1 **Determine the LED pattern of the desired TSB address**

Each address from 0 to 255 can be displayed with the 7 LEDs. Mark the LED pattern in the following template as an aid for the adjustment.

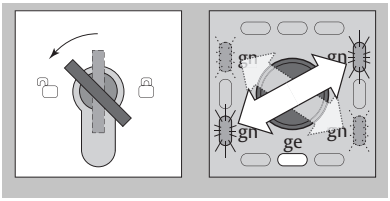


Step 2 **Switch on configuration mode.**

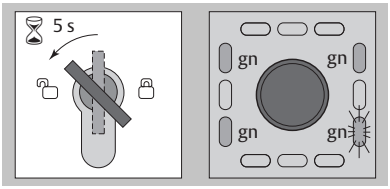


➲ Open the protective cover on the escape door module and leave open.
✓ The tamper alarm will be triggered.

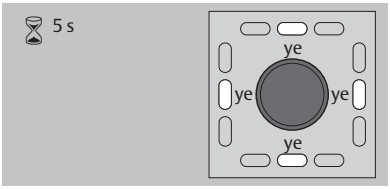
Additional information
The tamper alarm must remain active in order to access configuration mode.



➲ Turn the key to the left
✓ The audible signal will stop.
✓ The 4 green LEDs flash in pairs in a diagonal sequence.
✓ The lower yellow LED will light up.

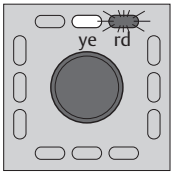


➲ Turn the key to the left and hold for five seconds.
✓ Three green LEDs light up.
✓ The lower right-hand green LED flashes.

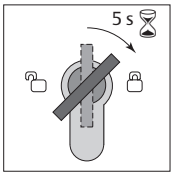


The display will change after five seconds.
✓ The four yellow LEDs light up.
✓ The configuration mode is now switched on.

Step 3 **Switch on Menu 9 „Change TSB address“.**



➲ Turn the key to the left 9 times.
✓ The top yellow LED illuminates
the top right red LED blinks.



➲ Turn the key to the right and hold for five seconds.
✓ Four audible signals sound.
✓ The green LEDs illuminate in succession.

The display will change after five seconds.
✓ LEDs 1 to 64 immediately begin to illuminate in succession.
➲ Now you can select or de-select the address values.

Step 4 **Adjust LEDs according to the LED pattern (=address).**

The following applies for each LED:

LED is lit: Address value is selected

LED is dark: Address value is de-selected

You always select or de-select the address value when the status of the corresponding LED changes. You must turn the key switch briefly to the right for this purpose.

Select the address value.

Immediately when the corresponding LED illuminates:

➲ Briefly turn the key to the right.

De-select the address value:

Immediately when the corresponding LED goes out:

➲ Briefly turn the key to the right.

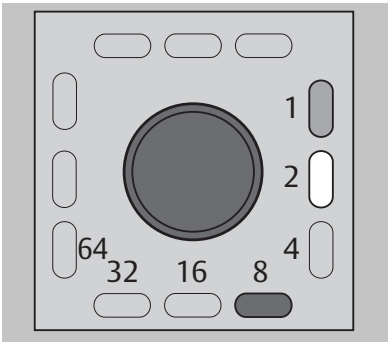
The cycle begins again for LED1 after each selection.

You have several attempts to select and/or de-select the LEDs.

If you do not select or de-select anything, the process cycles up to LED 64. Then you hear an audible signal and the process starts again with LED 1.

Example Desired address: 11

LED pattern: 1+2+8



Turn the key to the right when:

LED 1 illuminates
LED 2 illuminates
LED 4 goes out
LED 8 illuminates
LED 16 goes out
LED 32 goes out
LED 64 goes out

Step 5

Save LED pattern (=address).

If the LED pattern corresponds to the desired address, wait until the process has cycled through completely.

✓ You will hear an audible signal.

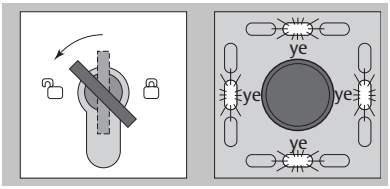
➲ Briefly turn the key once to the right.

✓ You will hear a long audible signal

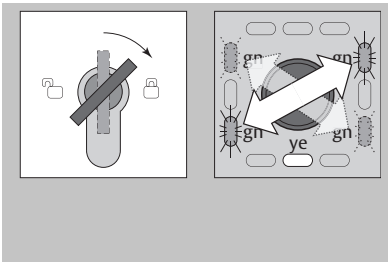
✓ The green LEDs blink in succession.

Step 6

Switch off configuration mode.



➲ Turn the key to the left while in configuration mode until the four yellow LEDs flash (**11 - Close configuration mode**).



➲ Turn the key to the right.

✓ A long audible signal is emitted.

✓ The 4 green LEDs flash in pairs in a diagonal sequence.

✓ The lower yellow LED lights up

➲ Close the protective cover again

Automatic change from configuration mode

If no input takes place within one minute while in configuration mode, the device automatically switches to operational mode.

✓ Several short audible signals are emitted.

Profile settings

The available profiles are optimised default settings, which you can access.
The parameters are adjusted at the factory.
These factory settings and the possible adjustment range are shown in the following table. All values in seconds.

Parameters	Factory setting	Adjustable from	to
Temporary release	5	1	255
Hold-open function	50	1	3600
monitoring unit	60	1	3600
Pre-alarm	10	1	3600
Alarm signal	180	0	255
Guidance signal	600	0	9999
Activation delay	0	0	255

Configuration using *FT Manager* (1385 - networked)
If changes are made, you must always select Profile **‚0‘** (called functions templates in ***FT Manager***) as it is the only place where changes can be saved.

Additional information
Profile **‘0’** is set by default when the device is delivered.

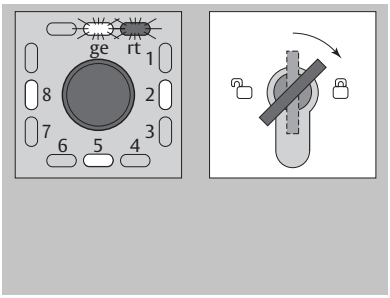
Profile	Description	
	Input	Output
0	External temporary release	Combined with a motorized or solenoid lock, or with an electric strike, to release the door in the direction of escape
1	External temporary release	To connect to an external locked mode monitoring unit
2	External temporary release	To actuate a door drive

Profile	Description	
	Input	Output
3	External temporary release	To connect to a flashing light or an alarm siren (without time restriction) (inverse)
4	Fire detector system (inverse)	To connect to a flashing light or an alarm siren (without time restriction) (inverse)
5	Burglar alarm system	To connect to an external locked mode monitoring unit
6	Operated via a contact in the access control system only	Combined with a motorized or solenoid lock, or with an electric strike, to release the door in the direction of escape
7	Operated via a contact in the access control system only	To connect to an external locked mode monitoring unit
8	Operated via a contact in the access control system only	To actuate a door drive
9	Operated via a contact in the access control system only	To connect to a flashing light or an alarm siren (without time restriction) (inverse)
10	External temporary release	Special function: SW time delay; connection to locking element
11	Operated via a contact in the access control system only	Special function: SW time delay; connection to locking element
12*	Actuation via timer switch	For connection of the electric strike or motorised lock
13*	Actuation via timer switch	To connect to a flashing light or an alarm siren (without time restriction) (inverse)

* Firmware V.2 or later ??

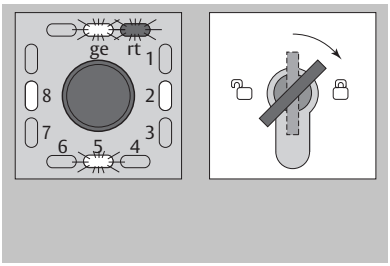
Master/Slave

The master/slave configuration menu (***1385*** only) enables you to use the LED display to identify which slaves are online or offline, or have an address conflict.



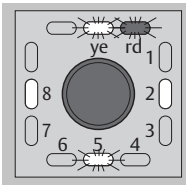
✓ The LEDs 1 to 8 indicate the address (LED1 = 1, LED2 = 2,...) where a device on the bus has detected the master in the ***1385***.

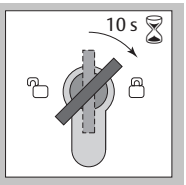
If one of the devices has a problem (gone offline, address conflict), the corresponding LED will flash.



➲ Turn the key to the right.

✓ This will indicate which of the flashing bus devices has an address conflict. Once you let go of the key, the display is updated, so that you can see whether the bus device in question is now online again.





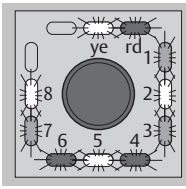
You can eliminate address conflicts.

➲ Turn the key to the left and hold for ten seconds.

✓ After five seconds, a bleep will be heard every second.

✓ A long acknowledgement signal is emitted after ten seconds.

Note:
If the key is turned to the right for more than ten seconds, the address conflict is eliminated and the bus is scanned again.



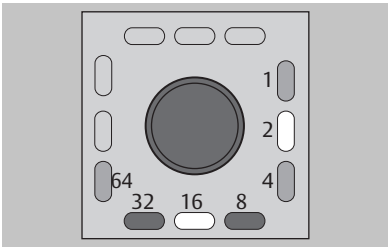
If all eight LEDs (1-8) are flashing, there is a short circuit in the bus.

➲ Identify the cause of the short circuit and rectify.

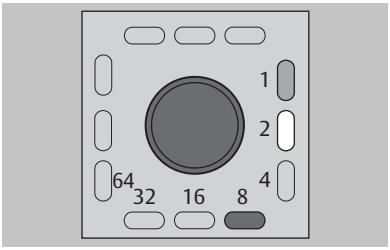
Display TSB address

The TSB address is displayed as a LED sequence in binary form:

Display



Individual LEDs are assigned corresponding binary numbers. A cumulative value between 0 and 255 is indicated depending on which LEDs light up.
If no LED lights up, then the binary value is 0.



Example on the left:
The LEDs light up with the values 1 + 2 +8.

✓ This results in a cumulative value of 11.

Example configuration

The following procedure serves as an example of how you can use the key switch to set and save the pre-alarm time at twenty seconds.

Starting configuration mode

➲ Open the protective cover on the escape door module and leave open.
➲ Turn the key to the left.
➲ Turn the key to the left and hold for five seconds.

Changing to the ‚Pre-alarm time' menu.

➲ Turn to the left four times using the key.
✓ You are now in the ‚Pre-alarm time' configuration menu. This is displayed by the left-hand yellow LED lighting up.

Configuring pre-alarm time

➲ Now turn the key to the right and hold it for the duration of the desired pre-alarm time (20 seconds).
The green LEDs blink alternately in clockwise motion, with each cycle corresponding to one second.
✓ The change you have made will be saved as soon as you let go of the key.

Leaving the configuration menu

➲ Turn the key to the left until the four yellow LEDs flash.
➲ Turn the key to the right.
✓ The 4 green LEDs flash alternately in pairs in a diagonal sequence and the lower yellow LED lights up.
➲ Close the protective cover again.
✓ The device has been configured and is ready to operate.

Check list - Testing before initial operation

Components

The individual components should be appropriately checked.

Identifier	Yes	No
Does installed locking element comply with guidelines for electronic locking systems in escape route doors?	❑	❑
Do controls comply with guidelines for electronic locking systems in escape route doors?	❑	❑
Does operating device comply with guidelines for electronic locking systems in escape route doors?	❑	❑
Do you have fitting and installation instructions at hand?	❑	❑
Do you have the form for escape door locking system testing before initial operation at hand?	❑	❑
In the case of external power supply to the locking system or parts thereof: Does the power supply unit comply with EN 60 950 (does it feature the CE mark)?	❑	❑

Installation

The general installation conditions should be checked.

Identifier	Yes	No
The locking element does not limit the door headroom to under 200 cm?	❑	❑
Does the escape door module comply with local building legislation specifications and guidelines for electrical locking devices for doors on escape routes?	❑	❑
Is the 'EMERGENCY BUTTON' sign present and correctly affixed?	❑	❑
If the locking unit is installed on fire and/or smoke doors: Do the locking element's position and installation type comply with the door manufacturer's verification of suitability specifications?	❑	❑

Function

Locking

➲ Close door

➲ Activate locking element.

Identifier	Yes	No
Do the four red LEDs light up?	❑	❑
Is the door securely locked? (test manually)	❑	❑

Temporary release

➲ Activate temporary release element.

Identifier	Yes	No
The left-hand upper green LED lights up.	❑	❑
The three remaining green LEDs switch off one after another in a clockwise direction.	❑	❑
Is the door released? (test manually)	❑	❑

Pre-alarm

➲ Open the door and keep open.

Identifier	Yes	No
Does an audible alarm sound as an audible intermittent signal after the door monitoring interval ends?	❑	❑
Do the four green LEDs flash in pairs?	❑	❑

➲ Close door

Identifier	Yes	No
Is the door securely locked? (test manually)	❑	❑
Do the four red LEDs light up on the escape door module?	❑	❑

➲ Activate temporary release element.

➲ Open the door and keep open longer than the pre-alarm delay interval.

Identifier	Yes	No
Is the danger alarm (audible alarm signal) triggered?	❑	❑

Identifier	Yes	No
Do the four green LEDs light up?	❑	❑
Do the four yellow LEDs flash?	❑	❑

➲ Close door
➲ Re-set alarm.

Identifier	Yes	No
Do the four green LEDs light up?	❑	❑
Is the door released? (test manually)	❑	❑

➲ Activate locking system.

Permanent release
➲ Activate permanent release.

Identifier	Yes	No
Is the door released? (test manually)	❑	❑
Can the door be opened without using considerable effort?	❑	❑
Do the four green LEDs light up?	❑	❑

Danger alarm
➲ Activate locking system.
➲ Activate emergency push-button.

Identifier	Yes	No
Is the door released without a delay?	❑	❑
Can the door be opened without using considerable effort?	❑	❑
Do all the green LEDs light up?	❑	❑
Do the yellow LEDs flash?	❑	❑
Does the audible alarm signal activate?	❑	❑
Does the emergency key button flash?	❑	❑

➲ Open the protective cover on the escape door module and leave open.
➲ Close the protective cover.
➲ Re-set alarm.

Identifier	Yes	No
Do the four green LEDs light up?	❑	❑
Does the audible alarm signal switch off?	❑	❑
Does the emergency key light up?	❑	❑

Tamper alarm on the escape door module

➲ Activate locking system.

➲ Open the protective cover on the escape door module.

Identifier	Yes	No
Do the red LEDs light up?	❑	❑
Do the yellow LEDs flash?	❑	❑
Is the tamper alarm (audible alarm signal) triggered?	❑	❑
Does the door remain locked? (test manually)	❑	❑

➲ Close the protective cover on the escape door module.

Identifier	Yes	No
Do the red LEDs light up?	❑	❑
Do the yellow LEDs flash?	❑	❑
Does the audible alarm signal remain active?	❑	❑
Does the door remain locked? (test manually)	❑	❑

➲ Re-set alarm.

Tamper alarm on the key switch module

➲ Activate locking system.

➲ Remove the cover from the key switch module.

Identifier	Yes	No
Do the red LEDs light up?	❑	❑
Do the yellow LEDs flash?	❑	❑
Does the audible alarm signal remain active?	❑	❑
Does the door remain locked? (test manually)	❑	❑

➲ Replace the cover onto the key switch module.

Identifier	Yes	No
Do the red LEDs light up?	❑	❑
Do the yellow LEDs flash?	❑	❑
Does the audible alarm signal remain active?	❑	❑
Does the door remain locked? (test manually)	❑	❑

➲ Re-set alarm.

If a danger alarm system such as a fire alarm system is activated.

➲ Activate locking system.

Identifier	Yes	No
Do the red LEDs light up on the escape door module?	❑	❑
Is the door securely locked? (test manually)	❑	❑

➲ Open the fail-unlocked loop in the danger alarm system.

Identifier	Yes	No
Is the door released without a delay?	❑	❑
Can the door be opened without using considerable effort?	❑	❑
Do all the green LEDs light up?	❑	❑
Do the yellow LEDs flash?	❑	❑
Does the audible alarm signal activate?	❑	❑

➲ Re-set alarm on the key switch.
➲ Close the fail-unlocked loop in the danger alarm system.

Identifier	Yes	No
Do the four red LEDs light up?	❑	❑
Does the audible alarm signal switch off?	❑	❑

Maintenance

Annual inspection

A technical specialist must:

- ➲ carry out an annual inspection of escape route doors with electric locking systems.
- ➲ issue an inspection certificate, which the building operator must submit to the building inspection authorities if required.

Additional information

These instructions are standard specifications. As the use of escape route locking systems is regulated on a national or local basis, respective local building legislation and inspection regulations for technical systems should be observed.

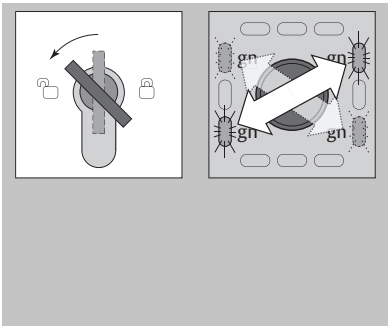
Maintenance

Escape door control terminals do not require any maintenance. If faults which are not caused by faulty installation or fitting occur during operation or during one of the compulsory tests, the device in question should be taken out of service immediately and sent to the manufacturer to be checked.

The fact devices do not require maintenance does not release building operators from the obligation to subject escape door locking systems to inspection on a regular basis.

Alarm signals

Identification of alarm criteria



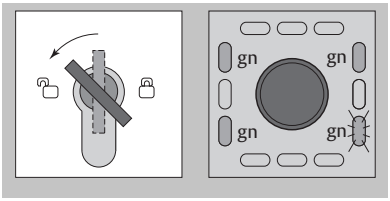
- ✓ Alarm signal is present.
- ➲ Turn the key to the left.
- ✓ Alarm is acknowledged.
- ✓ The **4 green LEDs flash in pairs in a diagonal sequence**.
- ✓ The alarm signal is indicated by an LED sequence pattern (see the following table).
- ➲ Eliminate the cause of the alarm.

The green LEDs flash in pairs in a diagonal sequence.
You can also identify the following indicator displays which represent alarm criteria.

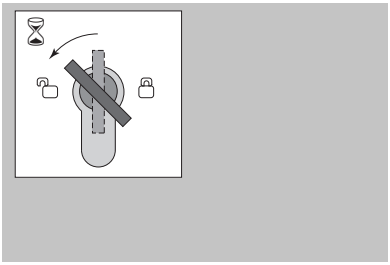
Additional indicator displays		Alarm criteria
EMERGENCY-OPEN switch	**LEDs**	
Dark	-	Centrally operated release
Flashes	-	EMERGENCY-OPEN
Lights up	-	Central EMERGENCY-OPEN activated
Lights up	UPPER yellow LED lights up	External emergency release (fire alarm system)
Lights up	LOWER yellow LED lights up	Tampering with terminal
Lights up	LEFT-HAND and RIGHT-HAND LEDs flash	Device or I/O module offline

Additional information
The LED indicator display will remain active and the door cannot be locked while the alarm is present.

Identification of the cause of the alarm



✓ Alarm signal is present.
➲ Turn the key to the left.
✓ Alarm is acknowledged.
✓ Three green LEDs light up.
✓ The lower right-hand green LED flashes.



➲ Turn the key to the left and hold.
✓ The cause of the alarm is indicated by an LED sequence pattern (see the following table).
➲ Eliminate the cause of the alarm.

Three green LEDs light up and the lower right-hand green LED flashes.
You can also identify the following indicator displays which represent the cause of the alarm.

Additional indicator displays	Cause of alarm
Right-hand yellow LED lights up	Centrally operated release
Left-hand yellow LED lights up	EMERGENCY-OPEN
Both yellow LEDs above and below light up.	Central EMERGENCY-OPEN activated

Technical specifications

Additional information

The power supply unit must comply with limits established in IEC/EN 60950 with regards to limited capacity power sources. The maximum output rating is limited to 100 W.

In the case of power supplies >100 W, a pre-fuse rated at 4 A for 24 V DC or rated at 8 A for 12 V DC should be provided by the customer.

Escape door module

Electrical data

Identifier	Value
Input voltage range (ext. power supply)	12 V DC -15% to 24 V DC +15% Regulated direct current (low safety voltage)
Max. intrinsic current consumption at 12 V DC	approx. 150 mA
Max. intrinsic current consumption at 24 V DC	approx. 100 mA
Input voltage range (terminals 12/13)	Low– Active (0V)
Input voltage range (terminal 10)	+12 V -15 % to +24 V +15 % Regulated direct current (low safety voltage)
Safety fuse F1	1 AF, Littelfuse 154001
Contact rating (relay) with ohmic load	30 V / 1 A
Contact rating (relay) with inductive load	30 V / 1 A
Safety measure	Low safety voltage
Protection system according to DIN/ EN 60529	IP30

Mechanical data

Identifier	Value
Operating temperature range	-20°C to +40°C
Storage temperature range	-20°C to +60°C
Installation dimensions	For standard flush-mounted boxes: 62.5 mm deep

Key switch module

Electrical data

Identifier	Value
Contact rating - Micro-switch	Max. 24 V/0.1 A (ohmic load)
Safety measure	Low safety voltage
Protection system according to DIN/ EN 60529	IP30

Mechanical data

Identifier	Value
Operating temperature range	-20°C to +40°C
Storage temperature range	-20°C to +60°C
Installation dimensions	For standard flush-mounted boxes: 62.5 mm deep

Profile half cylinder

Dimensions

Identifier	Size (Centre of mounting screw - cylinder leading edge)
DIN profile half cylinder	30.5 mm
Lock catch	180°

Identifier	Value
Operating temperature range	-20°C to +40°C
Storage temperature range	-20°C to +60°C
Installation dimensions	For standard flush-mounted boxes: 62.5 mm deep

Key switch module

Electrical data

Identifier	Value
Contact rating - Micro-switch	Max. 12 V/0.1 A (ohmic load)
Safety measure	Low safety voltage
Protection system according to DIN/ EN 60529	IP30

ASSA ABLOY is the global
leader in door opening solutions,
dedicated to satisfying
end-user needs for security,
safety and convenience

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Technische Änderungen vorbehalten.

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