

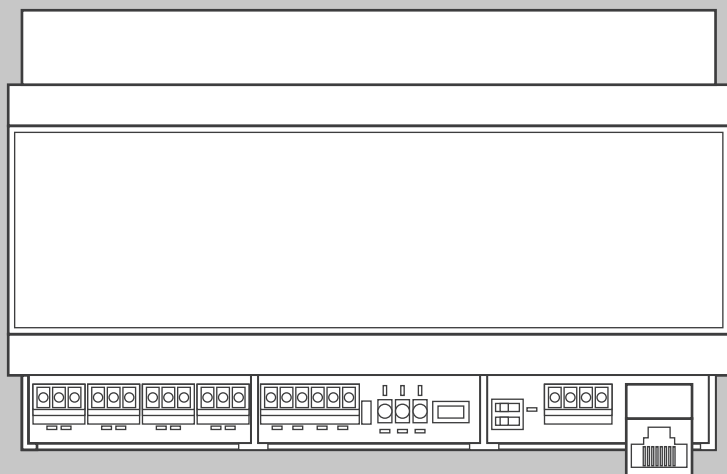
# ePED® escape route technology



HI-O TECHNOLOGY™



[www.assaabloy.com/de](http://www.assaabloy.com/de)



ePED® CMC connector 1386CMC-CON  
for central escape route control system

**effeff**  
ASSA ABLOY

## Installation and mounting instructions

D0122901

Experience a safer  
and more open world

**Read this manual thoroughly before use and keep it in a safe place for later reference. The manual contains important information about the product, particularly for the intended use, safety, installation, use, maintenance and disposal.**

**Hand the manual over to the user after installation and pass the manual on to the purchaser together with the product if the product is sold.**



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is a registered trademark of the  
*ASSA ABLOY Group.*

**ePED®**

is a registered trademark of  
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# Product information

## ePED® escape route technology

Electrical locking devices of doors along escape routes protect escape routes from misuse. The door is blocked in the escape direction in the process. In case of danger, the escape door is released with an emergency open button and an alarm is triggered. The alarm simultaneously serves as a deterrent against misuse.

The system has been tested in compliance with the German 'Guidelines for Electronic Locking Systems in Doors along Escape Routes' (EltVTR) and satisfies the technical safety requirements for a release in case of danger.

Safety-related characteristics

Safety-related features include:

- Fail-safe functionality (an error does not influence the release or lead to an automatic release),
- Fail-unlocked functionality (short-circuit or interruption of the conductor to the locking unit leads to automatic unlocking),
- Automatic release in case of an operating voltage failure (emergency power supply is permitted),
- Identification of the emergency open button,
- Tested permanent function.

## ePED® CMC connector 1386CMC-CON

The *ePED® 1386CMC central escape route control system* (Fig. 2) (manual D01117xx *ePED® central escape route control 1386CMC*) is a central operating panel with which authorised persons monitor and operate the electrically-controlled escape door system.

The escape door system is equipped with *ePED® escape route technology*. The connection to the Ethernet takes place via the *ePED® CMC connector 1386CMC-CON* (Fig. 1) to every escape door, with the following limits:

- a *1386CMC central escape route control* can control a maximum of 128 escape doors via 128 *CMC connectors 1386CMC-CON*,
- and
- one escape door can be controlled by no more than 32 *1386CMC central escape route control systems* via a *1386CMC-CON CMC connector*.

Fig. 1:  
ePED®  
CMC connector  
1386CMC-CON  
for central escape  
route control  
system 1386CMC

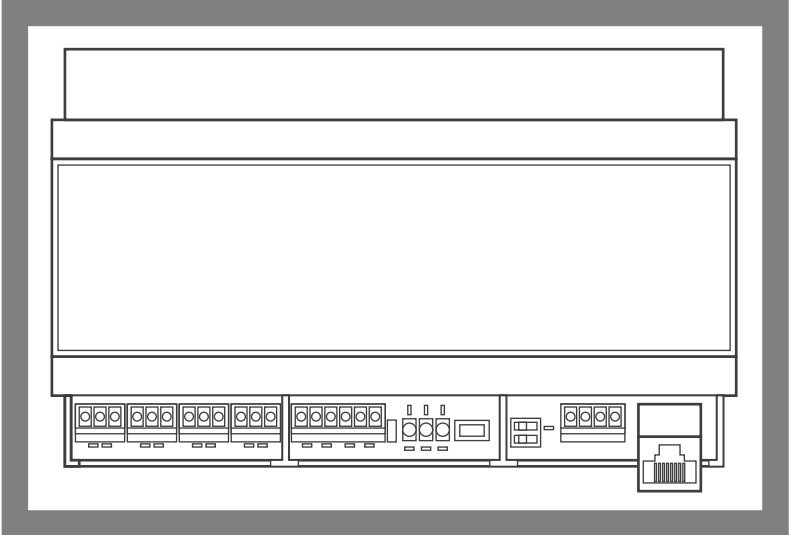
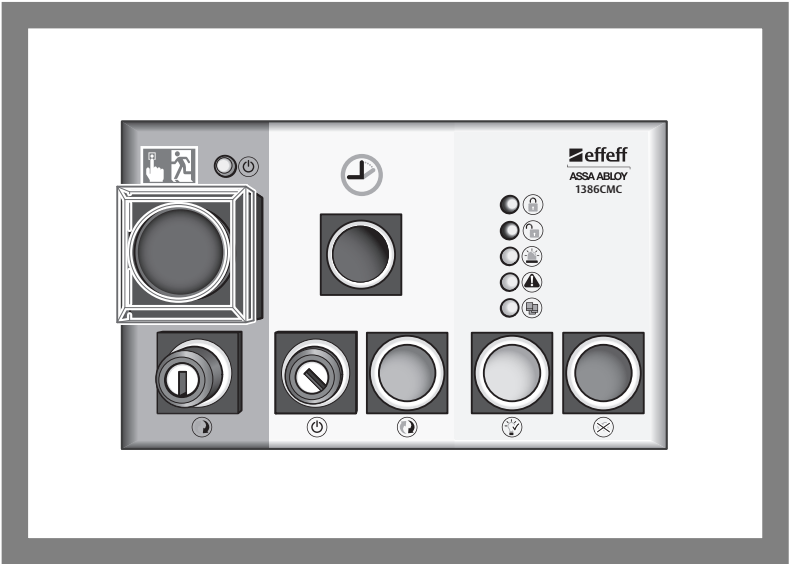


Fig. 2:  
ePED® 1386CMC  
central escape  
route control



## Explanation of terms

Term	Description
Release delay	The <i>release delay</i> is the wait time until the escape door is unlocked after actuation of the Emergency Open push-button.
Terminal	The <i>ePED® 1386-00 door terminal (terminal)</i> comprises several modules installed in a wall-mounted housing.
Ethernet	<i>Ethernet</i> is a data network (LAN technology).
Escape door system	<i>Escape door system</i> describes the scope of all electrical components of an escape door.
Hi-O Technology™	The Hi-O Technology™ bus (Highly Intelligent Opening) is a bus for the connection of electronic components (devices) in door systems.
Hi-O group	Assignment to a Hi-O group offers the possibility of organising components into groups.

# Safety instructions

## About this manual

The installation and configuration of the product must be performed by a qualified expert in electromechanical equipment; assembly work must be performed by a person with expertise in the type of work to be performed or by appropriately trained personnel.

## Meaning of the symbols



### Danger!

**Safety notice:** Failure to observe these warnings will lead to death or serious injury.

---



### Warning!

**Safety notice:** Failure to observe these warnings may lead to death or serious injury.

---



### Caution!

**Safety notice:** Failure to observe these warnings may lead to injury.

---



### Important!

**Note:** Failure to observe these warnings can lead to property damage and impair the function of the product.

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### Note!

**Note:** Additional information on operating the product.

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## Warning!

**Danger arising from modification of the product:** The safety features of this product are an essential requirement for its conformity with EltVTR. No changes which are not described in this manual may be undertaken.

---

**Danger due to missing Emergency Open button on the escape door:** If the release of the escape door is centrally controlled, it is no longer possible to independently choose to exit the danger area in the case of danger. This always requires an approval from the responsible inspection authority. Normally, a constantly manned station equipped with a central release mechanism is prerequisite for the approval.

---

**Danger due to faulty commissioning:** In order to ensure the safety of the product, commissioning must be performed by a qualified person. ASSA ABLOY *Sicherheitstechnik GmbH* offers training for qualification in the requisite skills.

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**Danger due to faulty maintenance:** The owner is responsible for correct installation and functional inspection of the product and connected components. The safe function must be tested by a trained qualified expert at least once per year ("Maintenance", page 15). Requirements established by inspection authorities must be complied with. ASSA ABLOY *Sicherheitstechnik GmbH* offers training for qualification in the requisite skills.

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**Danger arising from tampering or improperly performed repairs:** If the *ePED® terminal 1386-00* or parts of the device cannot resume normal operation after a fault or alarm message, or if there is evidence of damage, the device may only be repaired by a qualified person. Please contact the customer service of the installation company or the support department of ASSA ABLOY *Sicherheitstechnik GmbH* ("Warranty", page 16).

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### Warning!

**Violation against mandatory conditions:** If release is blocked, then the escape door is not released. If the release delay is activated, the escape door is only released after expiry of the set wait time.

- Security personnel must be able to see the affected escape door directly or via video monitoring. It is not permissible to extend the release delay or blocking without being able to see the escape door.
- The relevant inspection authority must approve before activation/use of release blocking and/or release delay.



### Important!

**Restricted function due to insufficient network connection:** the quality of the network connection is decisive for the availability of the *1386CMC central escape route control system*. If the quality of the network connection is insufficient, the escape door equipped with *ePED® escape route technology* is automatically switched to a “local mode” and the functions of the central escape route control system are no longer available.

- Ensure that the network connection is trouble-free. In order to exclude influences by other network devices, *ASSA ABLOY Sicherheitstechnik GmbH* recommends a separate network structure for the escape route.

## Intended use

Electrical locking devices on doors along escape routes are intended for use in commercial applications.

The escape door system is equipped with *ePED® escape route technology*. The connection to the *1386CMC central escape route control system* (manual D01117xx *ePED® 1386CMC central escape route control system*) via Ethernet takes place with an *ePED® CMC connector 1386CMC-CON* at every escape door, with the following limits:

- a *1386CMC central escape route control* can control a maximum of 128 escape doors via 128 *CMC connectors 1386CMC-CON*,

And

- one escape door can be controlled by no more than 32 *1386CMC central escape route control systems* via a *1386CMC-CON CMC connector*.

The product has been designed for safeguarding escape routes and has been tested to the requirements specified in the German guidelines on electrical locking systems for doors in escape routes (EltVTR). Deviating uses or device combinations not described are not permitted.

ASSA ABLOY *Sicherheitstechnik GmbH* can provide the necessary planning information for approved solutions and the device combinations required for your application.

The security functions for the release of the electrical locking meet the requirement for fail-safe functionality in DIN EN 13637:2015, "safety integrity level" SIL 2 of the IEC 61508:2010 parts 1 to 7 (reference: technical data).

Compliance with all relevant inspection authority requirements is mandatory for use, particularly with respect to the

- coordination of the safety concept with the responsible inspection authority and
- modifications of door elements.

The device is suitable for installation, configuration and use, according to these instructions. Any use beyond this is deemed as non-intended use; device combinations which are not described are not permitted.

# Commissioning



## Warning!

**Danger due to faulty commissioning:** In order to ensure the safety of the product, commissioning must be performed by a qualified person. ASSA ABLOY Sicherheitstechnik GmbH offers training for qualification in the requisite skills.

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## Important!

**Property damage from connection with USB devices:** The connection socket on the housing cover (Fig. 4 page 13 – 14) is **not a USB jack**. The device will be destroyed if a USB device is connected via a standard USB cable A/B.

- Only use the *ePED service interface USB 1386-SIF*.
- 



## Note!

**Commissioning:** All Hi-O devices must be connected to the bus for the configuration. Then the operating voltage is switched on. Subsequently connected devices are only recognised after renewed connection of the operating voltage.

At least one Emergency Open module is always necessary for operation of the RWT locking module.

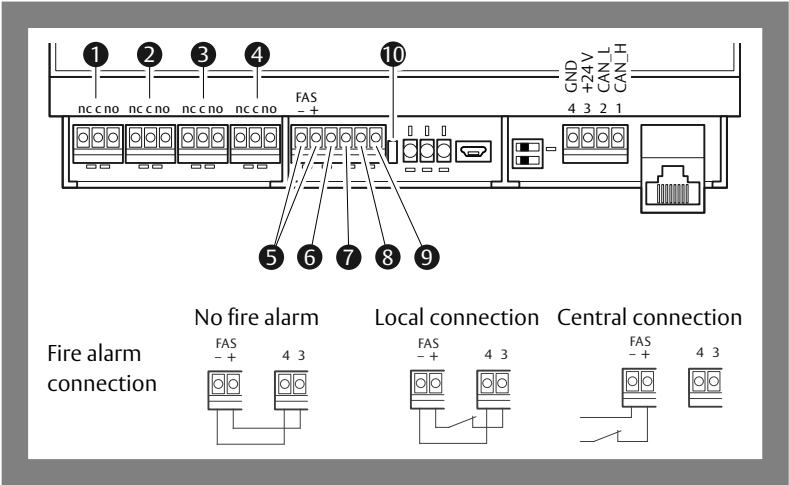
Configure the system via the *ePED® CMC escape door control system configuration*. (D01117xx ePED® service software manual).

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# Installation

## Connections

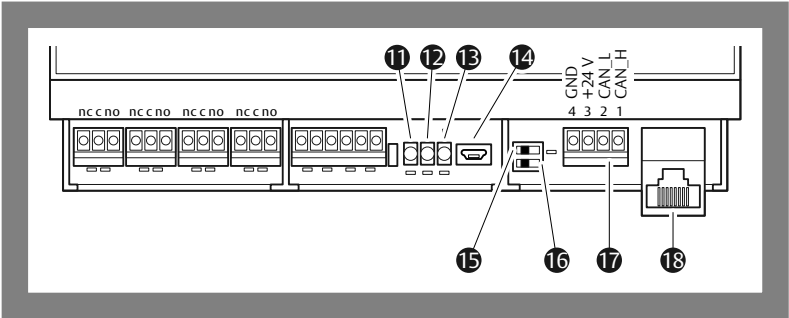
Fig. 3:  
Connecting block



Tab. 1:  
Key for Fig. 3

No.	Description	No.	Description
Outputs/relays		Outputs/relays	
1	Emergency open c → nc = no emergency open actuated c → no = emergency open actuated	2	Door status c → nc = unlocked c → no = closed/locked
3	Fault c → nc = no fault c → no = fault issued	4	FAS diagnosis c → nc = fire alarm c → no = no fire alarm
Inputs		Inputs	
5	Fire alarm system (FAS) Relay 4 immediately switches alarm message after 1 second	6	Resetting the alarm
7	GND	8	Permanent release (timer contact)
9	Temporary release	10	Plug contact (jumper) – jumper plugged in – fire alarm system is switched off

Fig. 4:  
Connecting block



Tab. 2:  
Key for Fig. 4

No.	Description	No.	Description
11	LED (green)	12	LED (yellow)
13	LED (red)	14	Connection for service interface USB 1386-SIF (manual D01113xx service inter- face USB 1386-SIF)
15	DIP switch – Hi-O Technology™ – group OFF – group 0 ON – group 1	16	DIP switch – Hi-O Technology™ – termina- tion with terminating resistor OFF – no termination ON – termination
17	Hi-O Technology™ – Bus 1 CAN_H 2 CAN_L 3 +24V 4 GND	18	Ethernet

# Technical data

Feature	Characteristic
Power supply	12 V (–10%) to 24 V (+10%) SELV
Maximum current consumption at 24 V at 12 V	200 mA 500 mA
Application site	for use in indoor areas
Protection rating	IP30 (when completely mounted)
Operating temperature	–10 °C – +55 °C
Certification	according to ENEC

## Communication

Feature	Characteristic
Minutes	TCP
Encryption	SSL
Port	Configurable via CMCFG Standard: 48,000
Restart time after offline status (local mode ended)	after 2 to 6 seconds, depending on network settings and offline duration (possible new change of the SSL key)
Data volume Example 1: 1 x central escape route control 1 x CMC connector Example 2: 1 x central escape route control 10 x CMC connector	System-dependent approx. 2 Kbyte/second  approx. 20 Kbyte/second

# Maintenance



## Warning!

**Danger due to faulty or improperly performed maintenance:** The owner is responsible for correct installation and functional inspection of the product and connected components.

- The safe function must be tested by a trained qualified expert **at least once per year**.
- Requirements established by inspection authorities must be complied with. *ASSA ABLOY Sicherheitstechnik GmbH* offers training for qualification in the requisite skills.

At the time of the  
initial  
commissioning  
For each  
scheduled  
maintenance

### In particular:

- A test log must be created at the time of the initial commissioning, wherein a description of the installed electrically controlled escape route system, configuration parameters, and results of the complete functional testing are recorded.
- All further maintenance must be recorded in a suitable test log book (available from *ASSA ABLOY Sicherheitstechnik GmbH*).
- If permissible and officially approved modifications of the electrically controlled escape route system should take place at a later time, they must be recorded in the same manner as for an initial commissioning.
- Ensure that all opening and closing functions of all escape doors without limitation when the escape route system is deactivated.
- Ensure that the escape doors are secured after activation of the electrically controlled escape route system.
- Ensure that the escape doors can be opened after the central and local Emergency Open buttons are pressed.
- Ensure that the escape doors are unlocked on actuation by a connected fire alarm system.
- All components of the electrically controlled escape route system must be inspected for damage, changes, and secure mounting and the configuration and safe functionality must be assured.
- It must be ensured that there are no relevant deviations from the recorded initial commissioning of the electrically controlled escape route system with respect to condition, configuration, and functionality. If there are deviations, they must be recorded accordingly and subjected to approval by inspection authorities.

# Warranty, disposal

## Latest news


The latest information is available at: [www.assaabloy.com/de](http://www.assaabloy.com/de)

## Warranty

The statutory warranty periods and ASSA ABLOY *Sicherheitstechnik GmbH*'s Terms and Conditions of Sale and Delivery ([www.assaabloy.com/de](http://www.assaabloy.com/de)) apply.



## Disposal

The following applies to products marked with the symbol  (crossed out dustbin):

The applicable environmental protection regulations must be observed. Do not dispose of lamps, disposable and rechargeable batteries, electrical devices or personal data in the household waste.

Lamps and used disposable and rechargeable batteries must be removed from the device without damaging them and then disposed of separately.

## Packaging

Packaging materials must be recycled. You can also give packaging material to the distributor or trade professional for disposal free of charge at the place of handover.





## Product

WEEE reg. no. DE 69404980

You must dispose of the product correctly as electronic scrap after use and take it to a local collection point for recycling free of charge.

You have the following additional options for free disposal through the distributor:

- Return an old device with similar functions at the place where the new device is delivered.
- Return a maximum of three similar old appliances (max. edge lengths 25 cm) to a retail store with no obligation to purchase a new one.

The take-back obligation applies to distributors of electrical appliances with a sales area of over 400 m<sup>2</sup> or to distributors of foodstuffs that offer electrical appliances several times a calendar year or continuously with a total sales area of 800 m<sup>2</sup>. In the case of online providers, the total storage and shipping areas for electrical appliances are considered retail space. For further details, see German Electrical and Electronic Equipment Act Section 17 (1)(2) [ElektroG3 §17 (1)(2)].

Distributors using means of remote communication must, upon delivery, collect or take away free of charge heat exchangers, screens, monitors and devices containing screens with a surface area greater than 100 square centimetres and devices in which at least one of the external dimensions is greater than 50 centimetres. For lamps and smaller devices in particular, they must ensure suitable return options at a reasonable distance.





The ASSA ABLOY Group is the global leader in access solutions. Every day we help people feel safe, secure and experience a more open world.

**ASSA ABLOY**  
Opening Solutions

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