

PAXOS *advance Series*

Installation Instructions



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1 About this Operating Manual

1.1 Introduction

The fully redundant electronic high-security locking system *PAXOS advance IP* (Paxos advance for short) is designed in accordance with the latest technology and meets all known safety standards. Nevertheless, improper operation of the electronic high-security locking system Paxos advance can lead to material damage or physical injury.

To ensure a safe, proper and economical operation of the electronic high-security locking system Paxos advance, observe and comply with all of the information and safety instructions in these Installation Instructions and the instructions for the components that are used together with the locking system.

If you have questions, which are not or insufficiently answered in these Installation Instructions, please contact your business partner. They will be glad to assist you.

1.2 Validity/limitation

These Installation Instructions describe the installation and functional control of the different designs of the electronic high-security locking system Paxos advance and the relevant available options.

1.3 Target group

These Installation Instructions are intended for highly skilled and trained personnel, who are entrusted with the installation and functional checks of the electronic high-security locking system Paxos advance.

The description presumes that trained specialist personnel are working on the system and does not replace product training.

1.4 Limitations

The information included in these Installation Instructions is limited to the controls and configuration of the electronic high-security locking system Paxos advance.

The available options (I/O-Box, IP-Box, AS384 Management-Suite Software) are only described insofar as required for the proper operation of the electronic high-security locking system Paxos advance. Further information on the optional AS384 Management-Suite Software can be found in the quick start guide and help function of the software.

1.5 Additional documentation

These Installation Instructions are supplemented by the Operating Manual and the Quick Start Guide for the electronic high-security locking system Paxos advance.

1.6 Information and warning symbols

1.6.1 Danger to personnel



Risk of explosion!

Indicates a potentially dangerous situation that in case of non-compliance may lead to minor injuries.

1.6.2 Danger to property



CAUTION

Indicates a potentially dangerous situation which, if not heeded, might lead to system damage or have a significant impact on the function and/or usage of the system.

1.6.3 Other notes



Application instructions with additional information. They ensure that the product and its functions are used optimally.



AS384 Management-Suite Software

Refers to the AS384 Management-Suite Software (optional), which enables additional settings and functions.

1.7 Marks and definitions in the text

- To enhance readability of the instructions, the “fully redundant electronic high-security locking system *PAXOS advance IP*” is shortened to “locking system” or “Paxos advance”.
- Cross-references to other chapters with more detailed information about a topic are marked in italics and set in parentheses.
Example: *(see section 3 “Product Description”)*
- Text appearing in the display of the input unit is placed in quotation marks.
Example: “Unlocked”
- Keys that need to be pressed are marked in bold capital letters and set in angle brackets (example: <**ENTER**>).

2 Safety and Environment

2.1 Intended use

The locking system Paxos advance is used for locking and releasing the mechanical locking points of safe doors and inner compartment locks, which are generally operated manually via a bolt-work.

The release (open locks) is only executed after entering one or more of the opening codes on the input unit. The opening of the lock can also be made dependent on time functions and/or external signals.

The locking system Paxos advance must be used only for its intended purpose – blocking and releasing mechanical blocking points of the above-mentioned equipment. Any use beyond this is deemed to be improper. The manufacturer is not liable for any damages that result from such use.

The locking system Paxos advance is intended solely for use in closed areas.

2.2 General

Any person entrusted with installing the electronic high-security locking system Paxos advance must read and understand these Installation Instructions before starting work.

Knowledge of the contents of the Installation Instructions is a prerequisite for protecting staff from dangers, avoiding faulty operation and thus operating the system safely and appropriately.

2.3 Personnel qualification

All actions described in these Installation Instructions must be performed only by well trained and sufficiently qualified personnel. It is assumed that this personnel knows all of the relevant internal and external standards and regulations that must be observed during the installation of the system.

For safety and warranty reasons, any further work must be performed solely by personnel authorised by the manufacturer.

It is assumed that all of the personnel who complete the installation of the electronic high-security locking system Paxos advance are aware of and will observe the regulations governing work safety and accident prevention.

2.4 Inadmissible equipment modifications

Modifications to the electronic high security locking system Paxos advance are expressly not recommended and can lead to the loss of warranty and certification (e.g. VdS certification) and affect the security of the system.

Defective system components may be replaced only with original parts from your business partner and only by authorized personnel.

2.5 Disposal

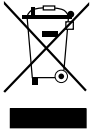
Packaging



Environmentally-friendly disposal of packaging

The system components are supplied in recyclable packaging. Please do not dispose of packaging in the household waste or the environment, but have them recycled instead.

System components



Do not dispose of system components in the household waste or the environment

Kaba devices are registered as "B2B" in the electrical appliances register. Kaba AG guarantees the recovery and disposal of the product.

At the end of the service life or in case of replacement, the system components must be returned to Kaba AG or taken to a disposal or recycling point, in accordance with the locally applicable regulations. Under no circumstances may system components be disposed of in the environment.

Batteries/rechargeable batteries



Do not dispose of used batteries/rechargeable batteries in the household waste or the environment

Used batteries/rechargeable batteries are to be disposed or taken to a recycling point, in accordance with state and local regulations. Under no circumstances may batteries be disposed of in the household waste or environment.

Carefully store batteries/Kaba rechargeable battery packs to be disposed of to avoid short circuits, squeezing, or destruction of the battery/rechargeable battery casing.

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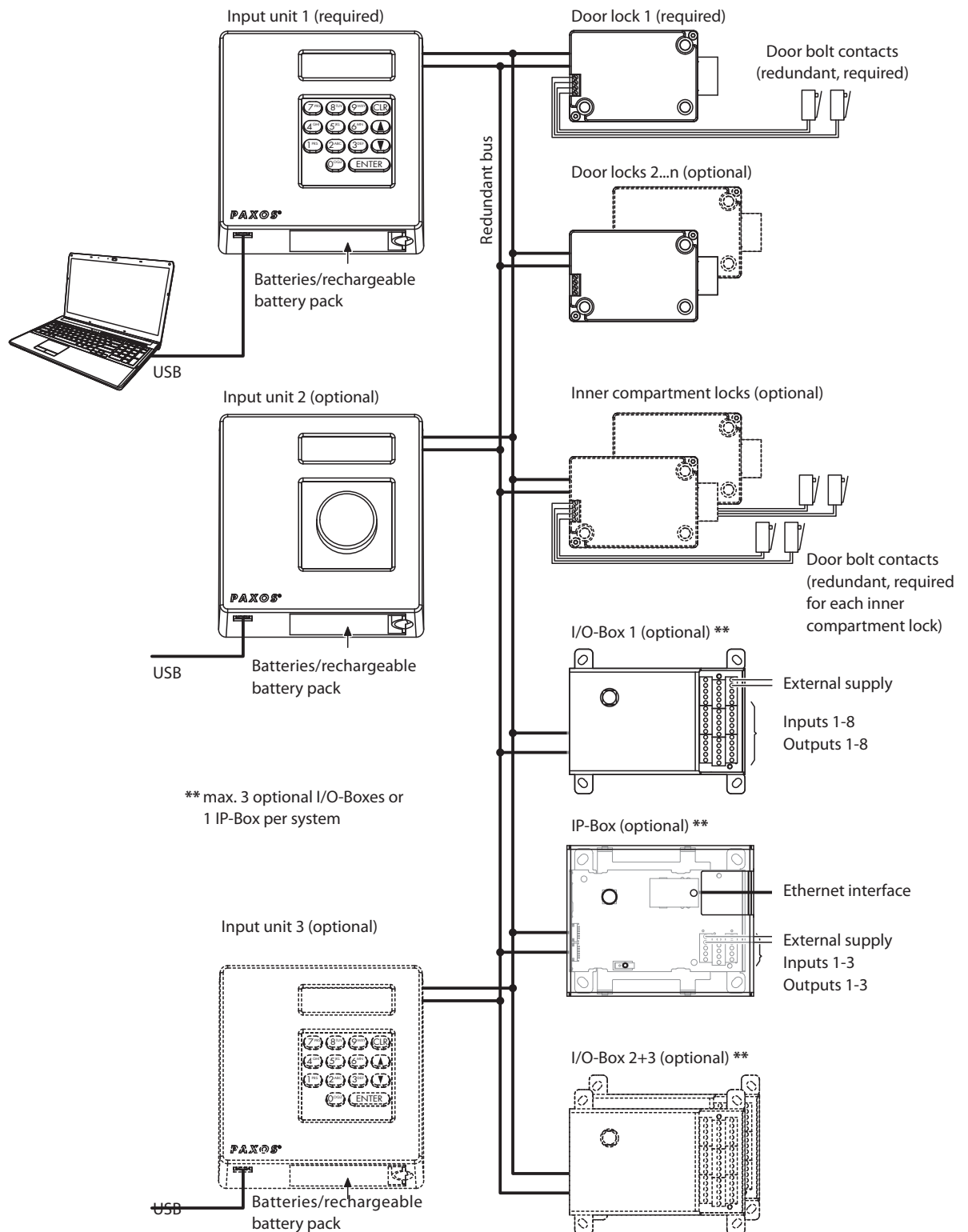
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3 Product Description

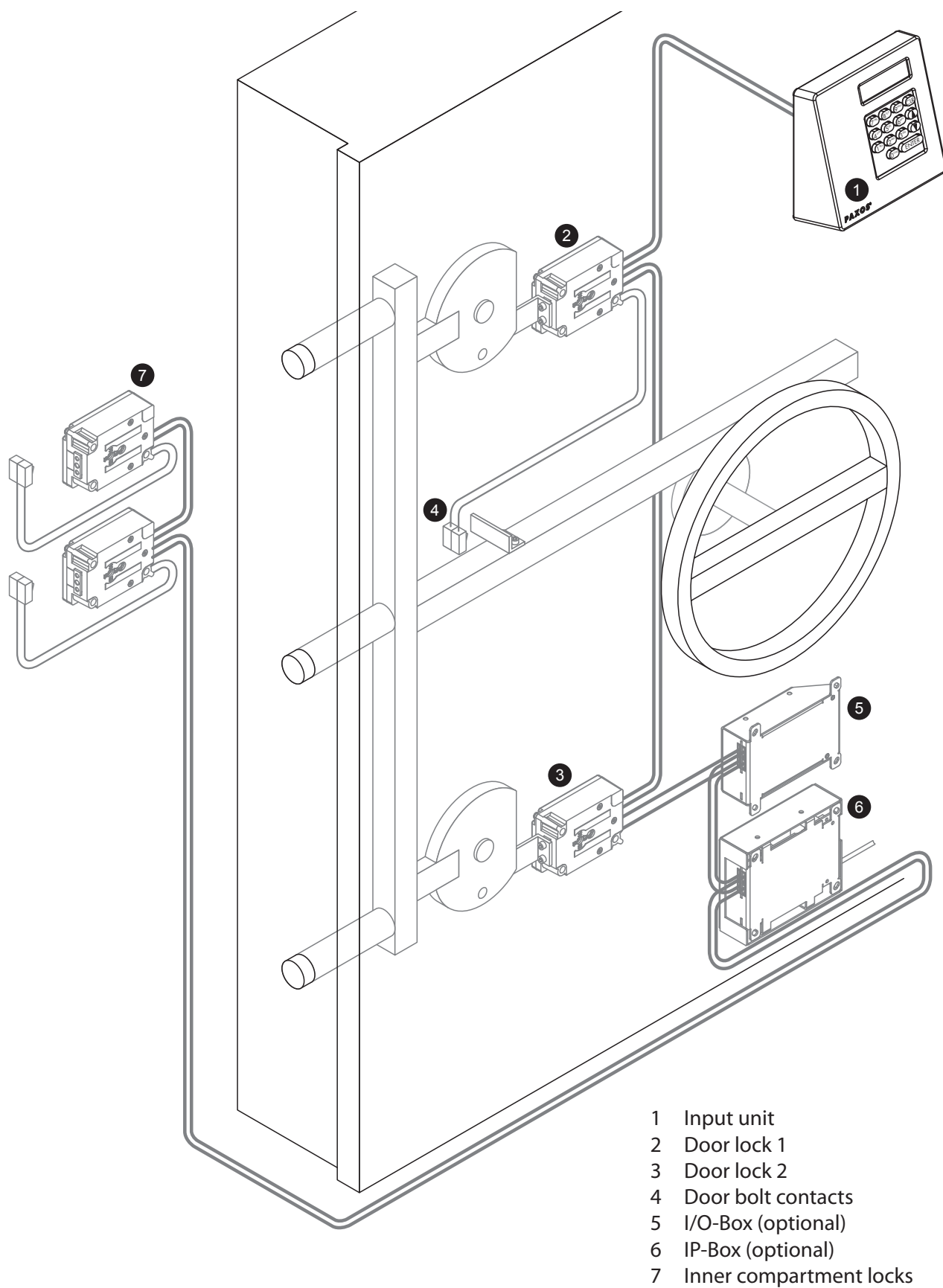
3.1 System overview

3.1.1 Circuit diagram of the system setup



Circuit diagram of the system setup

3.1.2 Application example



Application example

3.1.3 System description

System setup

- Minimum configuration

The minimum configuration of the locking system Paxos advance comprises:

- One input unit (with keypad or dial knob)
- One door lock
- Two door bolt contacts (to be provided by the customer)

- Maximum configuration

In the maximum configuration a total of twelve different system components can be connected with each other via the redundant bus. The following limitations apply:

- At least one and a maximum of three input units (with keypad or dial knob)
- One or several door locks
- Maximum of three optional I/O-Boxes
- One optional IP-Box
- Several inner compartment locks (the maximum number of inner compartment locks is limited by the maximum number of system components)
- Two redundant door bolt contacts for the door locks (to be provided by the customer) and depending on the configuration, two redundant door bolt contacts for each inner compartment lock (to be provided by the customer).

System supply

The system is either supplied by batteries (autonomous operation) that are inserted in the input unit or an external supply (12.. 24 VDC) that is connected to the I/O- or IP-Box. If an IP-Box is installed in the system, the external supply must be connected to the IP-Box. If an external supply is used, batteries and rechargeable battery packs can be inserted in the input unit so that they can supply the power in the event of a power failure. The control of the input unit automatically detects whether batteries or rechargeable battery packs have been inserted and automatically charges any batteries via the external power supply.

Redundant bus

A maximum of twelve system components can be connected to each other via the redundant bus. The maximum bus length is 10 m per bus (A and B).

USB interface

A PC/laptop can be connected via the USB interface on the input unit and the system can be configured and managed via the optional AS384 Management-Suite Software.

I/O-Box (optional)

The optional I/O-Box comprises:

- Eight freely programmable in- and outputs each
- One input for the external power supply (12...24 VDC)

Fixed functions are preset to the in- and outputs at the factory. The optional AS384 Management-Suite Software is required for the customer-specific configuration of the in- and outputs.

IP-Box (optional)

The optional IP-Box connects the Paxos advance locking system to an IP network. The IP-Box will be connected to the Paxos advance locking system's redundant bus system over the bus connector and to the IP network over the RJ45 interface. To integrate the Paxos advance locking system into the network and to configure it, the optional AS384-NETW Management-Suite Software is required.

The IP-Box features:

- Three freely programmable inputs and outputs each
- One input for the external power supply (12...24 VDC)
- One RJ45 connection

The optional AS384-NETW Management-Suite Software is required for the configuration of inputs and outputs.

3.2 Scope of supply

3.3 Sets and components

The components of the locking system Paxos advance are supplied in sets and include the following content:

Designation	Contents
Set 1	Class 2 (VdS 2396) or Class B (EN 1300) locking system, comprising: <ul style="list-style-type: none"> – Keypad input unit (incl. battery compartment) – 1 Lock – 2 bus cables (1 m) – CD (manuals) Order number: 82753/0001 ID: PAXAD-SET1KP-IP
Set 3	Class 3 (VdS 2396) or Class C (EN 1300) locking system, comprising: <ul style="list-style-type: none"> – Dial knob input unit (incl. battery compartment) – 1 Lock – 2 bus cables (1 m) – CD (manuals) Order number: 82753/0002 ID: PAXAD-SET3DK-IP
Set 4	Class 4 (VdS 2396) or Class D (EN 1300) locking system, comprising: <ul style="list-style-type: none"> – Dial knob input unit (incl. battery compartment) – 2 Locks – 2x2 bus cables (1 m) – CD (manuals) Order number: 82753/0004 ID: PAXAD-SET4DK-IP
Set 5	Separate lock to Class 2/3 (VdS 2396) or Class B/C (EN 1300) locking system, comprising: <ul style="list-style-type: none"> – 1 Lock – 2 bus cables (1 m) Order number: 82753/0003 ID: PAXAD-SET5LO-IP
Set 5D	Separate lock to Class 4 (VdS 2396) or Class D (EN 1300) locking system, comprising: <ul style="list-style-type: none"> – 1 Lock – 2 bus cables (1 m) Order number: 82753/0005 ID: PAXAD-SET5LOD-IP

Designation	Contents
AS384-NETW, -USBW or -AUDITW	Optional programming software for configuring the locking system and for viewing the audit either via USB or network, comprising: <ul style="list-style-type: none"> – CD (software, manuals) – SW dongle(s) – USB cable Order numbers: ID: 82752Z0012 PAXAD-AS384-NETW 82753Z0004 PAXAD-AS384-USBW 82753Z0005 PAXAD-AS384-AUDITW
I/O-Box	Optional input/output connecting box with 8 configurable inputs and outputs each, comprising: <ul style="list-style-type: none"> – I/O-Box – 2 bus cables (1 m) – Sticker of the connection diagram Order number: ID: 82752Z0001 PAXAD-BOXIOB-BU
IP-Box	Optional network connecting box with 3 configurable inputs and outputs each and network connector, comprising: <ul style="list-style-type: none"> – IP-Box – 2 bus cables (1 m) – Sticker of the connection diagram Order number: ID: 82753Z0001 PAXAD-BOX-IP

3.4 Paxos advance accessories

Designation	Order number
Accumulator for the keypad and dial knob input unit	302.011
Adaptor for the keypad and dial knob input unit	302.012

3.5 Paxos advance options

Designation	Order number
The "locking element VdS" cover for the I/O-Box	PAXAD-BOXBLE

3.6 Technical data

3.6.1 Input unit with keypad

Dimensions (HxWxD)	137x135x60 mm
Weight (without batteries/rechargeable batteries and mounting bracket)	410 g
Material	ABS injection moulded
Fastening	With mounting bracket and 2 M6 screws
Electrical connection to the locking system	Redundant bus cables (Bus a and Bus B)
Display	LCD with backlight, graphic 122 x 32 pixels (2 lines)
Dialog language	German, English, French, Italian, Spanish and others
Input	Keypad (14 keys)
Identification mark code	0...9 and/or A...Z
Number of code positions	6, 7 or 8 characters/digits
Number of code combinations	111'000'000 (111 million)
Batteries	6x alkaline or lithium 1,5 V, Type "Minion", "AA", "LR6", "E91" or "AM3"
Rechargeable batteries	Paxos rechargeable battery pack 9V Ni-MH 302011
Operating voltage	9 VDC
Power consumption active / idle	Max. 13 mA / 20 µA
Overvoltage protection	Until 10 kV
Electro-magnetic compatibility (EMC)	According to VdS 2110
Permissible temperature range of operation	0 °C ... +50 °C
Permissible temperature range of storage	-10 °C ... +70 °C
Permissible ambient humidity	Max. 75% RH, non-condensing
Certification mark	CE
Safety class	B (EN 1300), 2 (VdS 2396)

3.6.2 Input unit with dial knob

Dimensions (HxWxD)	137x135x60 mm
Weight (without batteries/rechargeable batteries and mounting bracket)	405 g
Material	ABS injection moulded
Fastening	With mounting bracket
Electrical connection to the locking system	Redundant bus cables (Bus a and Bus B)
Display	LCD with backlight, graphic 122 x 32 pixels (2 lines)
Viewing angle limitation	Laterally $\pm 30^\circ$
Dialog language	German, English, French, Italian, Spanish and others
Input	Dial/push knob, specifying a random number
Identification mark code	0...9
Number of code points	8 characters
Number of code combinations	100'000'000 (100 million)
Batteries	6x alkaline or lithium 1,5 V, Type "Minion", "AA", "LR6", "E91" or "AM3"
Rechargeable batteries	Paxos rechargeable battery pack 9V Ni-MH 302011
Operating voltage	9 VDC
Power consumption	max. 33 mA
Overvoltage protection	Until 10 kV
Electro-magnetic compatibility (EMC)	According to VdS 2110
Permissible temperature range for operation	0 °C ... +50 °C
Permissible temperature range for storage	-10 °C ... +70 °C
Permissible ambient humidity	max. 75% RH, non-condensing
Certification mark	CE
Safety class	C/D (EN 1300), 3/4 (VdS 2396)

3.6.3 Lock

Dimensions (HxWxD)	85.0 x 60.4 x 30.9 mm
Weight	440 g
Material	Zamak die-cast zinc
Fastening	3 screws M6
Electrical connection to the locking system	Redundant bus cables (Bus a and Bus B)
Fastening carrier adapter to boltwork	1 screw M5 or 2 screws M4
Boltwork	Adjustable 8.7, 12, 14 or 15 mm
Bolt adjustment force nominal	30 N (in both directions)
Bolt counter force in adjustment direction (static)	≥ 1000 N
Code storage	Flash (power failure protected)
Operating voltage	9 VDC
Power consumption active/idle	11 mA / approx. 20 µA
Maximum motor activation current	660 mA
Overvoltage protection	Until 10 kV
Electro-magnetic compatibility (EMC)	According to VdS 2110
Permissible temperature range for operation	0 °C ... +50 °C
Permissible temperature range for storage	-10 °C ... +70 °C
Permissible ambient humidity	Max. 75% RH, non-condensing
Certification mark	CE
Safety class	B/C/D (EN 1300), 2/3/4 (VdS 2396): - mit Tastatur-Eingabeeinheit: B (EN 1300), 2 (VdS 2396) - mit Drehknopf-Eingabeeinheit: C (EN 1300), 3 (VdS 2396) - mit Drehknopf-Eingabeeinheit: D (EN 1300), 4 (VdS 2396)

3.6.4 I/O-Box

Dimensions (HxWxD)	117 x 80,0 x 33,5 mm
Weight	186 g
Material housing	Aluminium
Fastening	4 screws M5
Electrical connection to locking system	Redundant bus cables (Bus a and Bus B)
Terminals	for wire cross sections up to 1 mm ²
Inputs	8
Outputs	8
Interface	RS232
Connection of external power supply	12...24 VDC, 1 A
Operating voltage	12 VDC
Power consumption	Max. 300 mA
Overvoltage protection	Until 10 kV
Electro-magnetic compatibility (EMC)	According to VdS 2110
Permissible temperature range for operation	0 °C ... +50 °C
Permissible temperature range for storage	-10 °C ... +70 °C
Permissible ambient humidity	Max. 75% RH, non-condensing
Certification mark	CE

3.6.5 IP-Box

Dimensions (H x W x D)	120 x 100 x 36 mm
Weight	410 g
Material housing	Sheet metal, galvanized
Fastening	4 M5 screws
Electrical connection with the locking system	Redundant bus cables (Bus A and Bus B)
Terminals	for wire cross sections up to 1 mm ²
Inputs	3
Outputs	3
Interface	Ethernet RJ45 10/100BaseT
Connection of external power supply	12...24 VDC, 1 A
Operating voltage	12 VDC
Power consumption	Max. 300 mA
Overvoltage protection	Up to 10 kV
Electro-magnetic compatibility (EMC)	According to VdS 2110
Permissible temperature range for operation	0°C ... +50°C
Permissible temperature range for storage	-10°C ... +70°C
Permissible ambient humidity	Max. 75 %RH, non-condensing
Certification mark	CE

3.7 Compliance/standards and regulations

The Declaration of Conformity is supplied in a separate document.

The fully redundant electronic high-security locking system Paxos advance complies with the standards and regulations in accordance with the information provided in the Technical Data (see *section 3.6 "Technical data"*).



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4 Installation

4.1 Important information prior to installation



CAUTION

Please observe the following:

- Adherence to the described sequences is mandatory. Improper assembly or a different sequence can cause damage to the locking system.
- To prevent any damage, ensure that the connection cables cannot come in contact with moving parts. Do not route the cables over sharp edges.
- Do not close the secure storage door before all of the installation steps have been completed successfully and the system has been placed into operation correctly.



The following notes must mandatory be observed and complied to:

- To ensure VdS compliance, the locks must not be installed directly behind a breakthrough.
- To comply with the common safety standards, no bus cables must be led out of the protected area of the safety storage or the input unit.
- Any damage to the warranty seal on the locks and the optional I/O- or IP-Box invalidates the warranty claim and certifications (e.g. the VdS certification).

4.2 Unpacking and checking the scope of supply

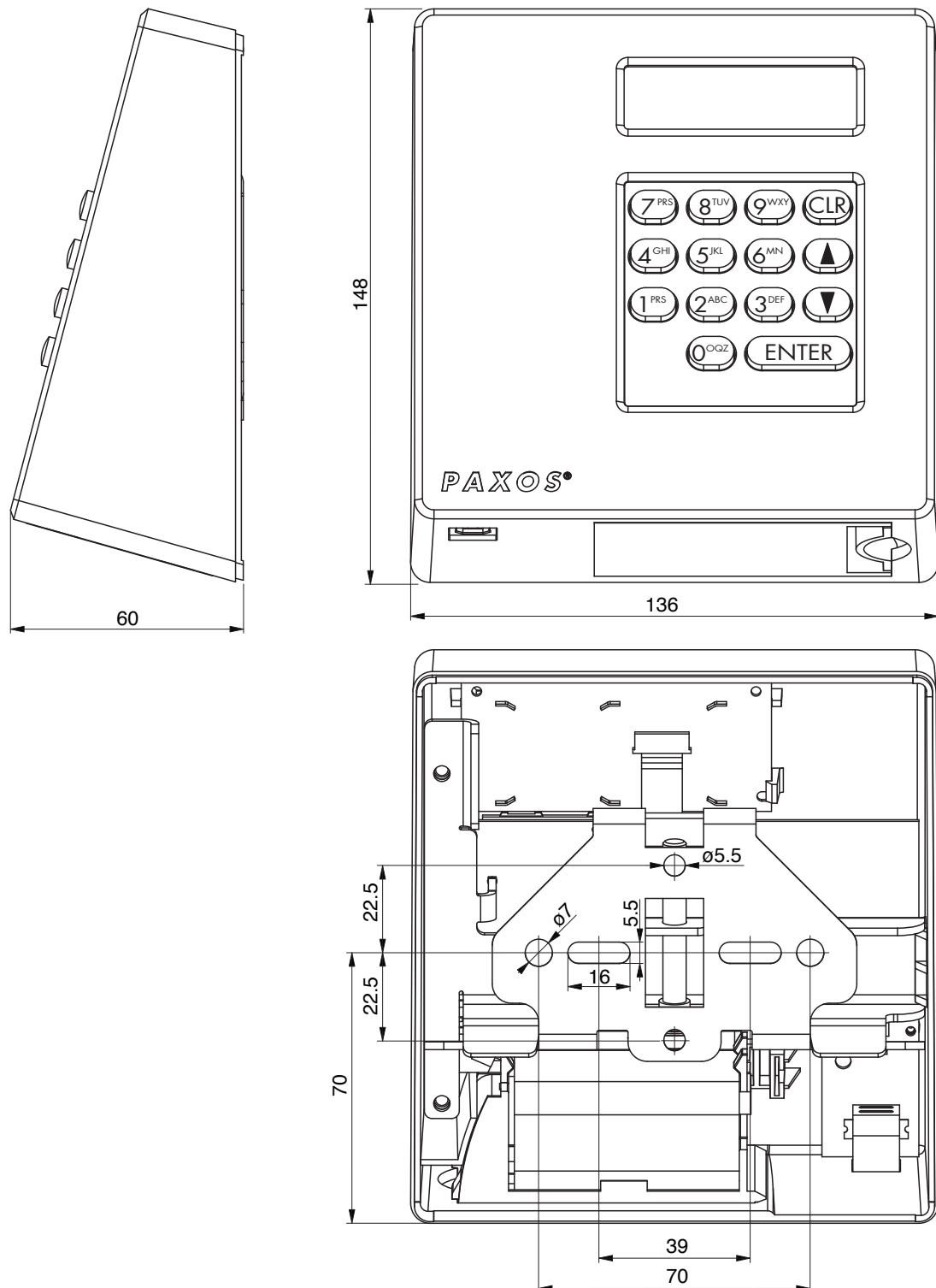
Unpack the delivery and check the content is complete (based on the delivery slip) and check for any damage.

Inform the transport company and the business partner immediately of any damage and any incomplete deliveries.

4.3 Mounting the input unit

The input unit is mounted at a convenient location for operation on the outside of the safe and is connected with the locks inside the safe by means of two bus cables.

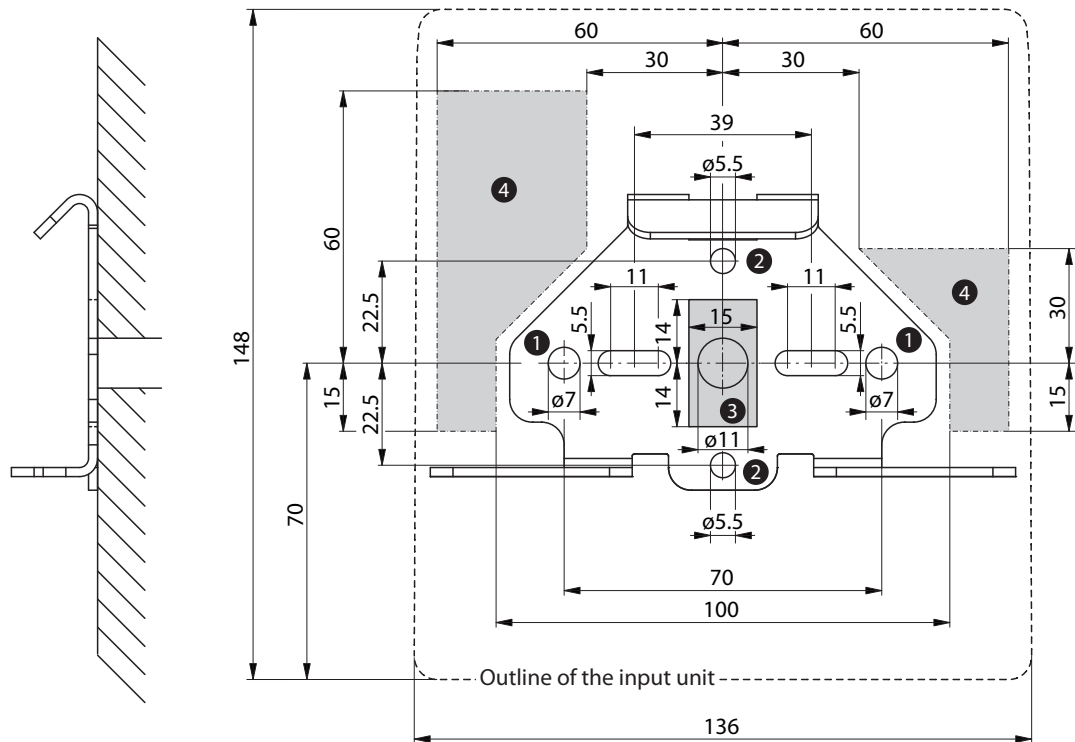
Dimensional diagram of the input unit (dimensions in mm)



Dimensional diagram of the input unit

Assembling the input unit

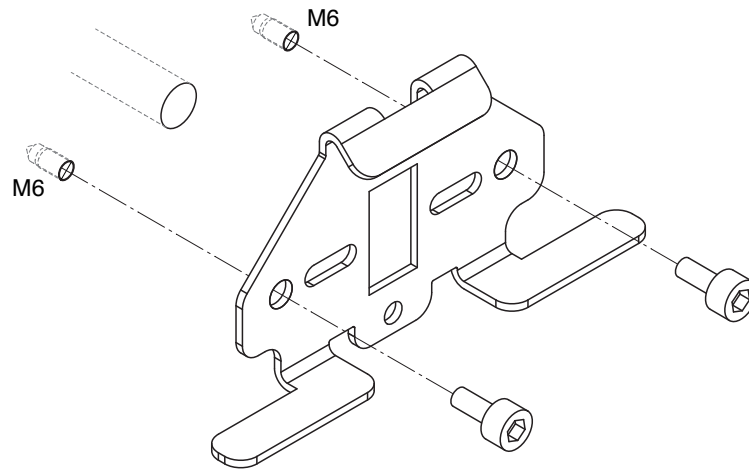
1. Mark and drill the mounting holes and cut thread M6 (or the equivalent in inches). Minimum usable thread length of 5 mm (see following diagram for dimensions).
Note: if applicable and admissible already available mounting spots can be used alternatively.
2. Mark and create feed through for the bus cable at the required location within the permissible surface (see following diagram). Recommended cross section for the feed through is 7.5 x 13 mm or a drill hole of $\varnothing 11$ mm.



- 1 Mounting holes
- 2 Alternative mounting holes
- 3 Cable feed through
- 4 Alternative areas for the cable feed through

Dimensional diagram of the mounting bracket

3. Attach the mounting bracket to the outside of the container door using two M6 screws.



Attaching the mounting bracket



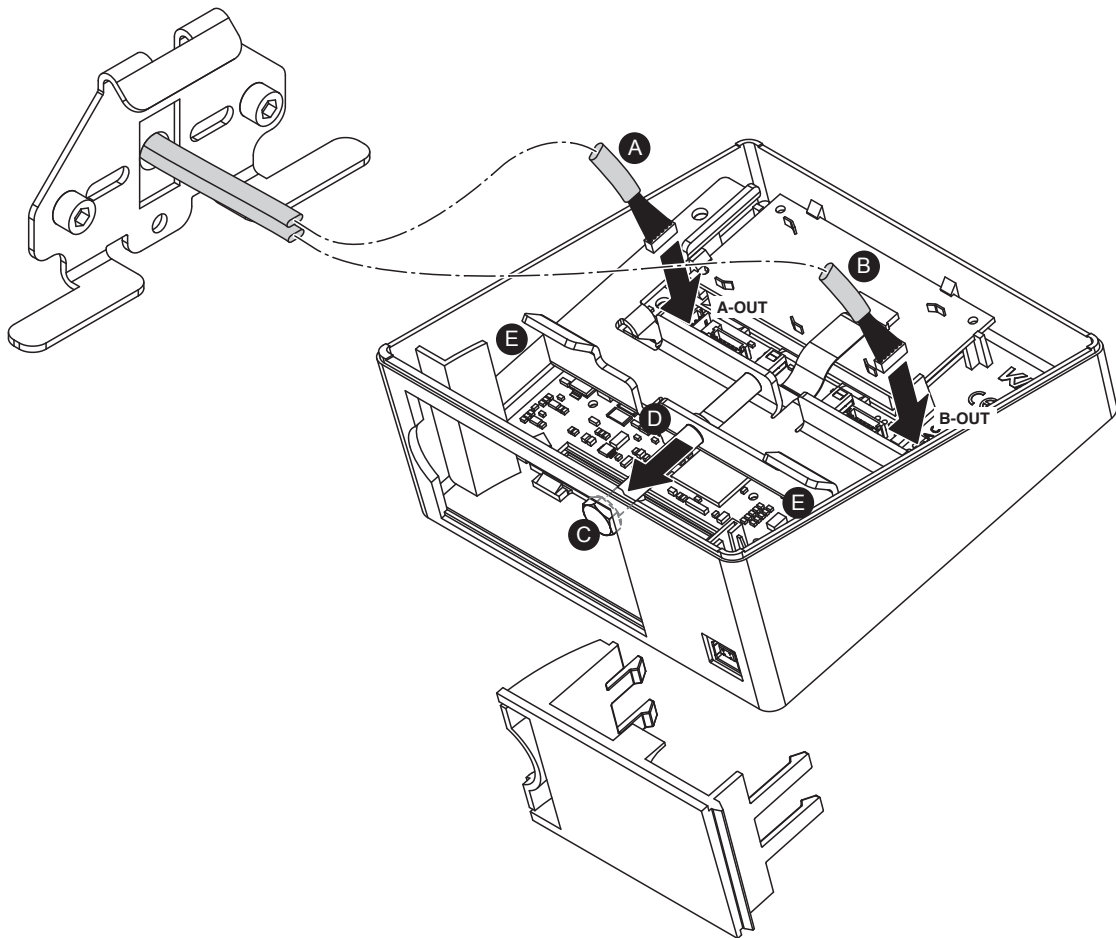
The alternative fastening points serve to use already available mounting holes from other input units so that no new holes for the attachment must be made on the exterior of the safe. The mounting bracket can be fixed with at least two M5 screws via the alternative fixing points.

4. Route the bus cables "A" and "B" from the lock chamber through the cable feed through to the input unit until they project approximately 100 mm from the side of the input unit.

**CAUTION**

To ensure the bus cables are not damaged deburr sharp edges and install additional protective sheaths around cables.

5. Insert the two bus cables "A" and "B" according to the following diagram into the print of the input unit (bus cable A --> A-OUT, bus cable B ---> B-OUT).
6. Unscrew set bolt "C" of the input unit until the end of the set bolt is level with the upper part of mounting clip "D".



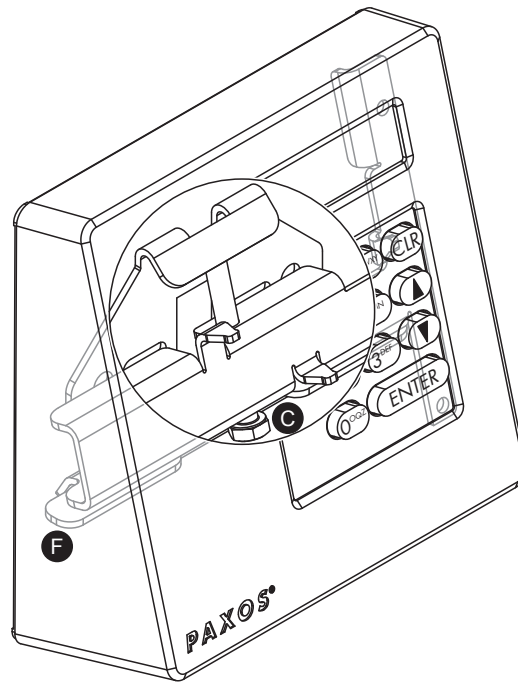
Connecting bus cables "A" and "B"

7. Hook the strips "F" of the mounting clip into the mounting bracket.

**CAUTION**

When attaching the input unit to the mounting bracket, ensure that the bus cable does not get trapped and is thus damaged.

8. Screw set bolt "C" through the open battery compartment and tighten by hand until the input unit is securely attached to the mounting surface.



Mounting and attaching the input unit

4.4 Mounting the locks

Important information on mounting the locks

When mounting the locks in the boltwork, it must be ensured that the lock bolt can move freely up to the end positions of the adjustable stroke and that the shifting force works only in the axial direction (direction of movement of the lock bolt).

Lateral forces should be avoided as far as possible and must not obstruct or limit the movement of the lock bolt. The lock bolt must be guided or supported in the event of asymmetric lateral locking.

The lock bolt shifting force has a nominal value of 30 N over the mechanical life-time of min. 10,000 cycles. The lock bolt can withstand a static force of at least 1000 N.

There must not be any breakthroughs within the immediate vicinity of the lock (mounting surface of the lock). Any such breakthroughs must be sealed accordingly or secured by a different means. If this is not done so, approvals (e.g. VdS and UL) may lose their validation.

The lock must be mounted on a level surface or onto four level mounting points.

The lock(s) can be installed on all materials that provide sufficient anchorage of the components. Metal materials are preferential.



The locks are available in two different lock classes:

- Lock class B/C (according to EN 1300) or class 2/3 (according to VdS 2396)
- Lock class D (according to EN 1300) or class 4 (according to VdS 2396)

Important: per locking system only locks with the same class must be used!



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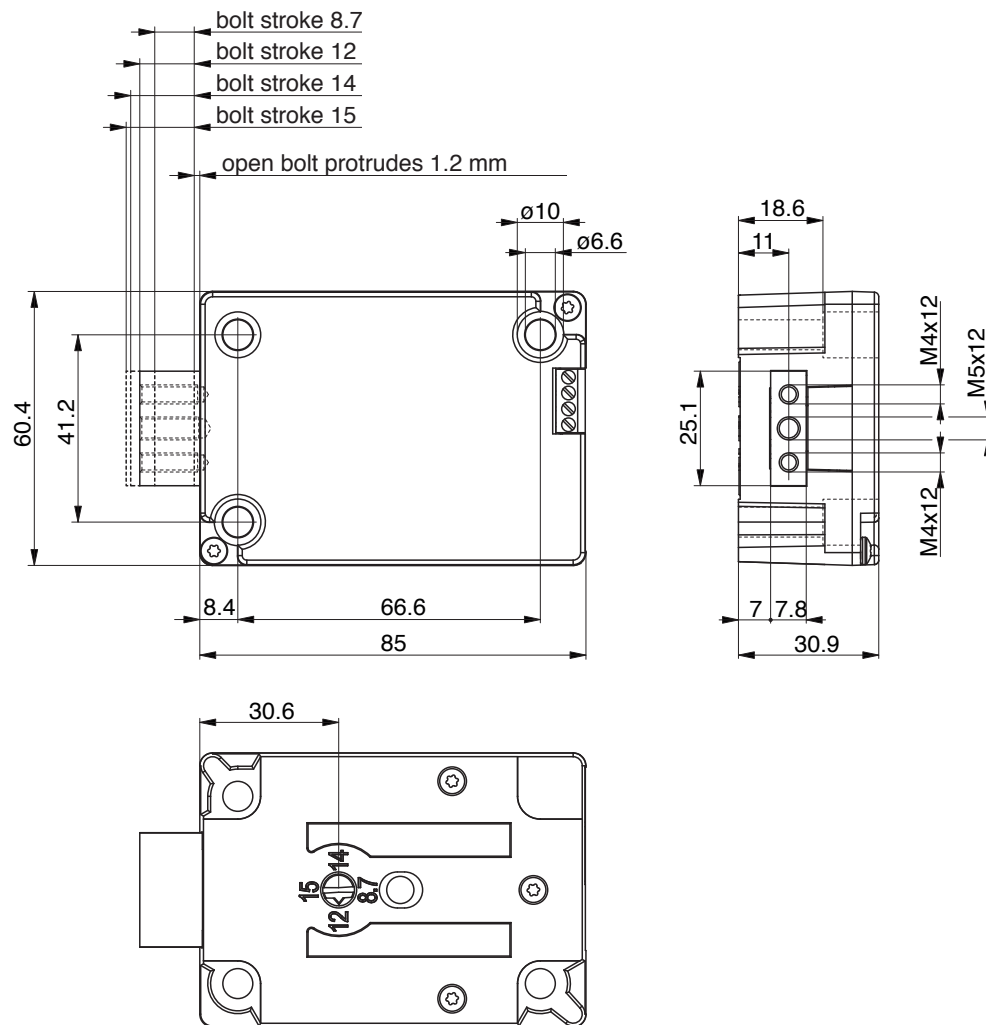
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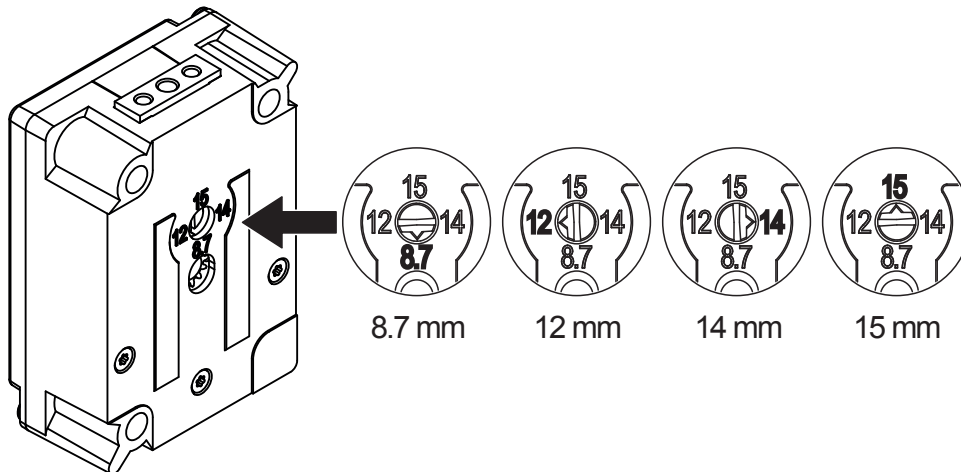
Dimensional diagram of the lock (dimensions in mm)*Dimensional diagram of the lock*

Setting the adjustable stroke of the lock bolt

Before installing the locks, set the required adjustable stroke of the lock bolt (8.7 mm, 12 mm, 14 mm or 15 mm) using the adjusting bolt on the bottom of the lock.



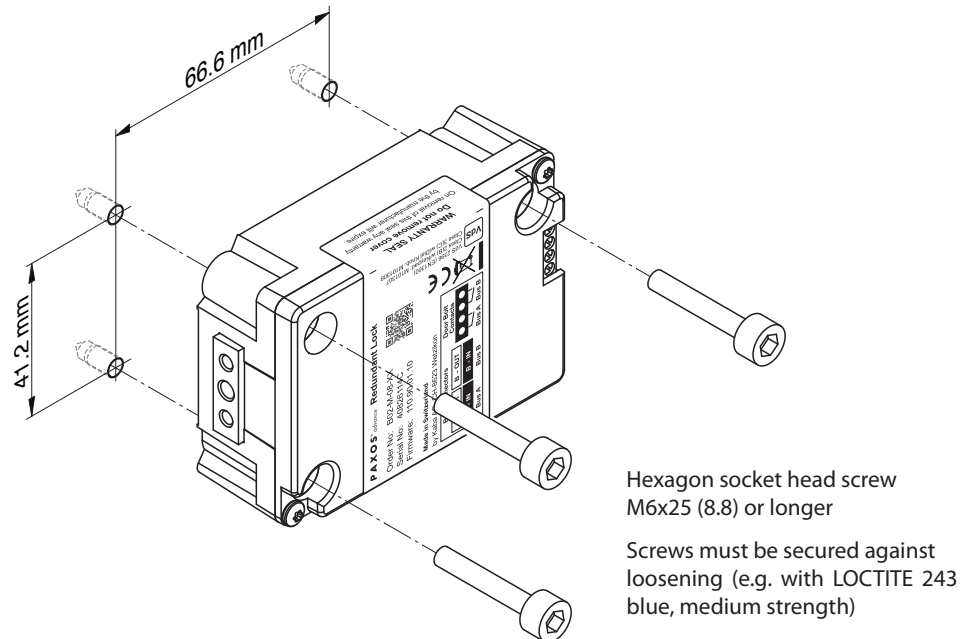
The adjusting bolt for setting the boltwork can only be accessed through the drill hole in the bottom of the lock when the lock bolt is in an open position.



Setting the adjustable stroke of the lock

Mounting the lock

1. Mark the three mounting holes at the intended location, drill and cut thread M6 (or the equivalent in inches). Minimum usable thread length of 5 mm.



Mounting the lock

2. Firmly screw the lock to the door body with three hexagon socket head screws M6x25 mm or longer (or the equivalent in inches) with a quality of at least 8.8 (screw length according to local conditions). The tightening torque must not exceed 500 Ncm at a minimum usable screwing depth of 5 mm.



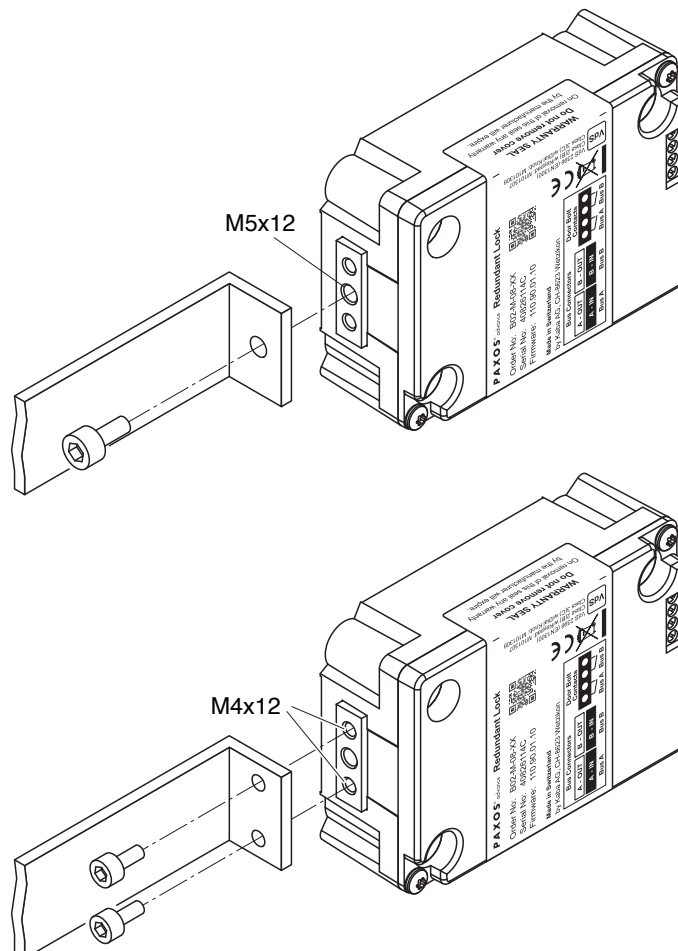
The mounting screws must be secured against loosening by using a screw cement (e.g. LOCTITE 243 blue, medium strength).

3. Repeat steps 1 and 2 for all of the door and inner compartment locks.

Mounting the carrier adapter

If other parts of the boltwork are to be connected to the lock (e.g. for activating blocking disks), corresponding adapters can be fixed to the front of the lock bolt with two screws (M4) or a centric screw (M5) (maximum tightening torque of 200 Ncm for 6 mm screwing depth).

During this process, it must be ensured that all moving parts can move freely and especially that the set guided path of the lock bolt is not restricted by stops or other objects in the boltwork. The



lock bolt must also have some play in the end positions.

Mounting the carrier adapter

4.5 Mounting the door bolt/door position contacts

Door bolt contacts (mandatory)

The customer must install **two electrically separated door bolt contacts** into the electronic high-security locking system Paxos advance that signal to the door locks when the door bolt is closed. The door bolt contacts must be installed in such a way that they are secured when in the closed position.

The door bolt contacts must be positioned and set in such a way that the contacts close as soon as the boltwork reaches a position where the lock bolt can move into the locked position without any interference.

When in a secured position, the door bolt contacts must not open when manipulated via the boltwork (activation of the boltwork mechanism, vibrations).

The door bolt contacts must be designed for a switching capacity of 50 mA at 12 VDC.

Door position contacts (optional)

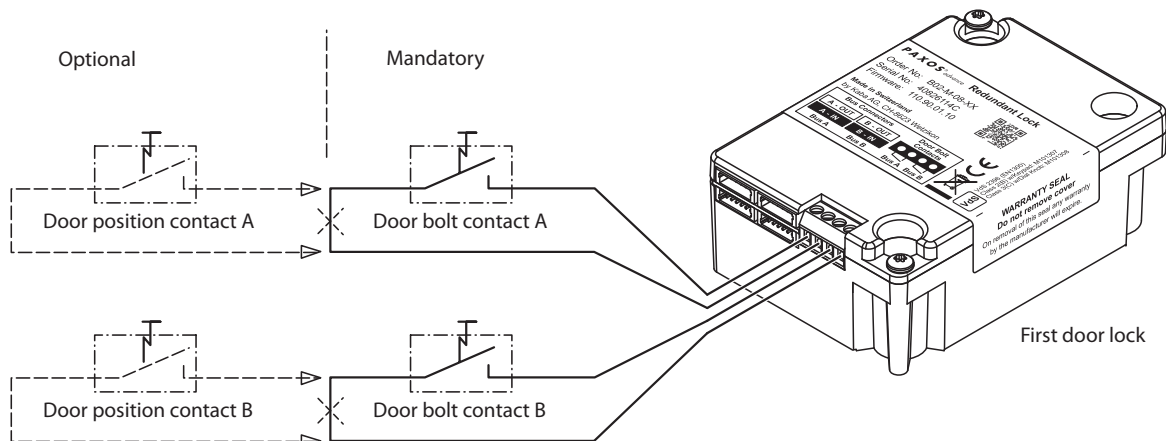
The customer can also install **two electrically separated door position contacts** that can be switched in series to the door bolt contacts to signal the position of the container door (open or closed).

The door position contacts must be positioned and set in such a way that when the door is being closed, the contacts are activated safely before the door bolt can be inserted into the door frame.

The door position contacts must be designed for a switching capacity of 50 mA at 12 VDC.



The contact circuits of the two redundant door bolt contacts and the two redundant door position contacts (if provided) must remain electrically separated (galvanically separated). However, a mechanical coupling, for example by common activation of the switches, is permissible.



Connecting the door bolt/door position contacts

4.6 Mounting the inner compartment locks

The Paxos advance locks may also be used as inner compartment locks. After opening the door locks the inner compartment locks can be opened individually later.

When mounting make sure that the locks can be fixed correctly to the inner compartment door (see *section 4.4 "Mounting the locks"*). Minimum usable thread length must be 5 mm. Additionally each inner compartment lock requires door bolt contacts. These door bolt contacts must be connected according to the information given in *section 4.5 "Mounting the door bolt/door position contacts"*.

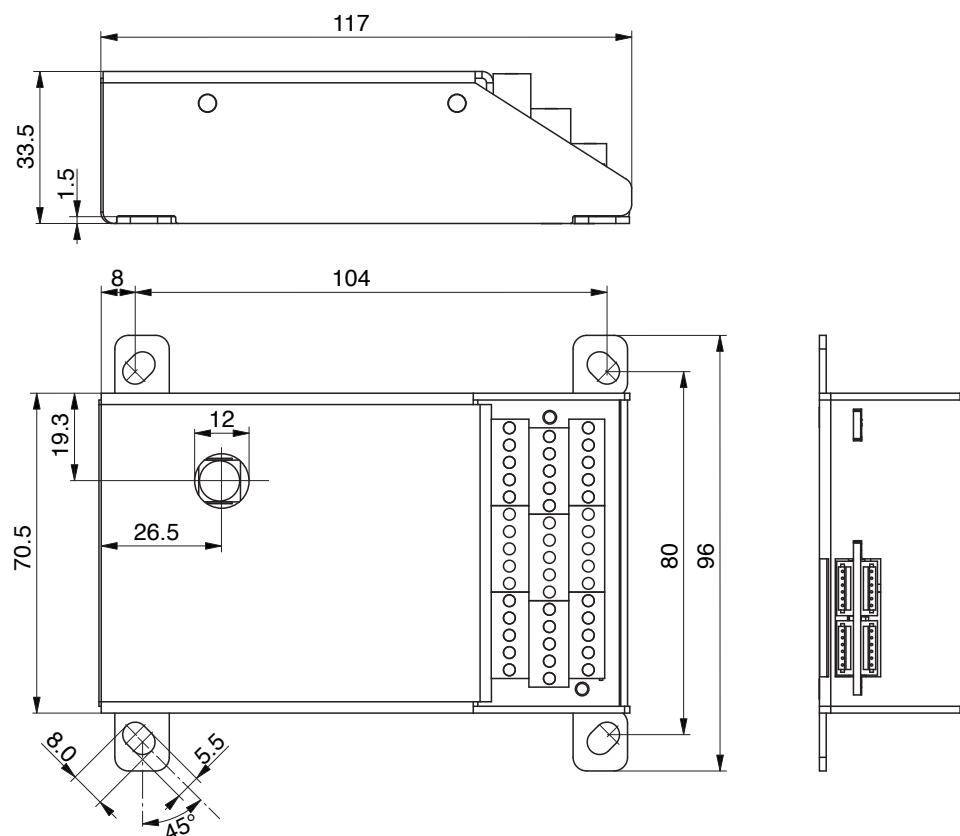


The bus cables to the inner compartment locks must be led and placed suitably. Kinking, shearing and inadvertent pulling out of the cables must unconditionally be avoided.

4.7 Mounting the optional I/O-Box

The I/O-Box is installed on the inside of the safe and is connected to the locking system by means of the two bus cables included in the scope of supply. A connection diagram for the various in- and outputs is provided in section 5.

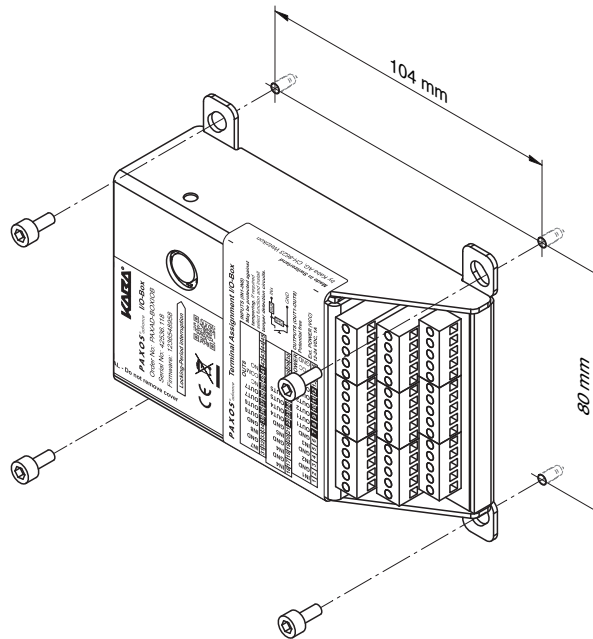
Dimensional diagram of the I/O-Box (dimensions in mm)



Dimensional diagram of the I/O-Box

Mounting the I/O-Box

1. Mark the four mounting holes at the intended location, drill and cut thread M5 (or the equivalent in inches). Minimum usable thread length of 5 mm.
2. Attach the I/O-Box to the inside of the door body with four M5 hexagon socket head screws (or the equivalent in inches) (screw length according to local conditions). The tightening torque must not exceed 200 Ncm at a minimum usable screwing depth of 6 mm.

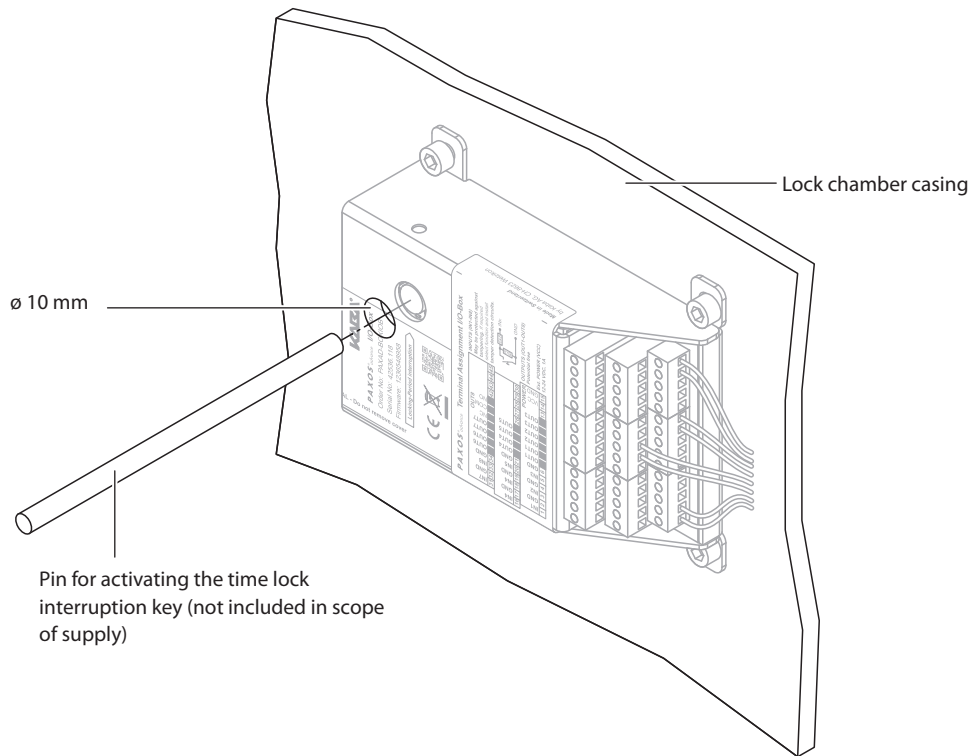


Mounting the I/O-Box



In accessible safes, a drill hole (to be activated with a pin in accordance with the VdS guideline) must be fitted above the red time lock interruption key in the lock chamber casing of the secure storage door (if available) so that the time lock interruption key can be activated from inside the lock chamber to initiate the time lock interruption in the event of an emergency.

If the red time lock interruption key is pressed the time lock is interrupted for 2 minutes.



Drill hole for the time lock interruption key

4.8 Installation and commissioning of the optional cover “VdS blocking element” for the I/O-Box

The locking system Paxos advance equipped with the optional I/O-Box and the optional cover “VdS blocking element” for the I/O-Box (**blocking element according to VdS**) can be used to control the locking system and a hazard alert or intrusion detection system.

The cover “VdS blocking element” can also be used as a lock monitoring system or burglar alarm in accordance with VdS.

4.8.1 Required components

The following components are required for operating the locking system Paxos advance as a blocking element:

- A locking system Paxos advance with lock class B (EN1300) / 2 (VdS 2396) or a locking system Paxos advance with lock class with lock class C (EN1300) / 3 (VdS 2396)
- Additional locks for locking systems with lock classes B (EN1300) / 2 (VdS 2396) or C (EN 1300) / 3 (VdS 2396)
- Optional I/O-Box
- Optional cover “VdS blocking element” for the I/O-Box
- External uninterruptible power supply from the hazard alert or intrusion detection system or an uninterruptible power supply unit

4.8.2 Functional description

When operating the locking system Paxos advance as a blocking element in accordance with VdS, special in- and outputs of the I/O-Box indicate standby activation to the hazard alert/intrusion detection system or prevent the locking system from being opened when the hazard alert/intrusion detection system is activated.

Locking process (activation of the hazard alert system)

The locking process starts automatically as soon as the door bolt contacts are closed, or if the locking mode is set to “Manual lock” as soon as the **<ENTER>** key or the dial knob on the input unit is pressed.

As soon as the lock bolt is closed, the “Locking status” signal output of the hazard alert or intrusion detection system indicates that the locking system is secured. The remote lock contact can be used to activate the remote lock via the hazard alert or intrusion detection system and arm the system. The locking system can no longer be opened.

Unlocking process (deactivation of the hazard alert system)

The remote lock must be deactivated via the remote lock contact of the hazard alert or intrusion detection system so that the locking system can be opened again (disarmed). The lock(s) can be opened again as soon as the remote lock is deactivated. When the locks and door bolt contacts are open, the “Locking status” signal output of the hazard alert or intrusion detection system indicates that the locking system is unlocked.

4.8.3 Connection work

The following section details the electrical connections between the I/O-Box and hazard alert or intrusion detection system that must be implemented to operate the locking system Paxos advance as a blocking element. If required, in- and outputs of the I/O-Box that are not used can be connected to the hazard alert or intrusion detection system in accordance with the details in *section 5.3 "External connections on the I/O-Box"*.



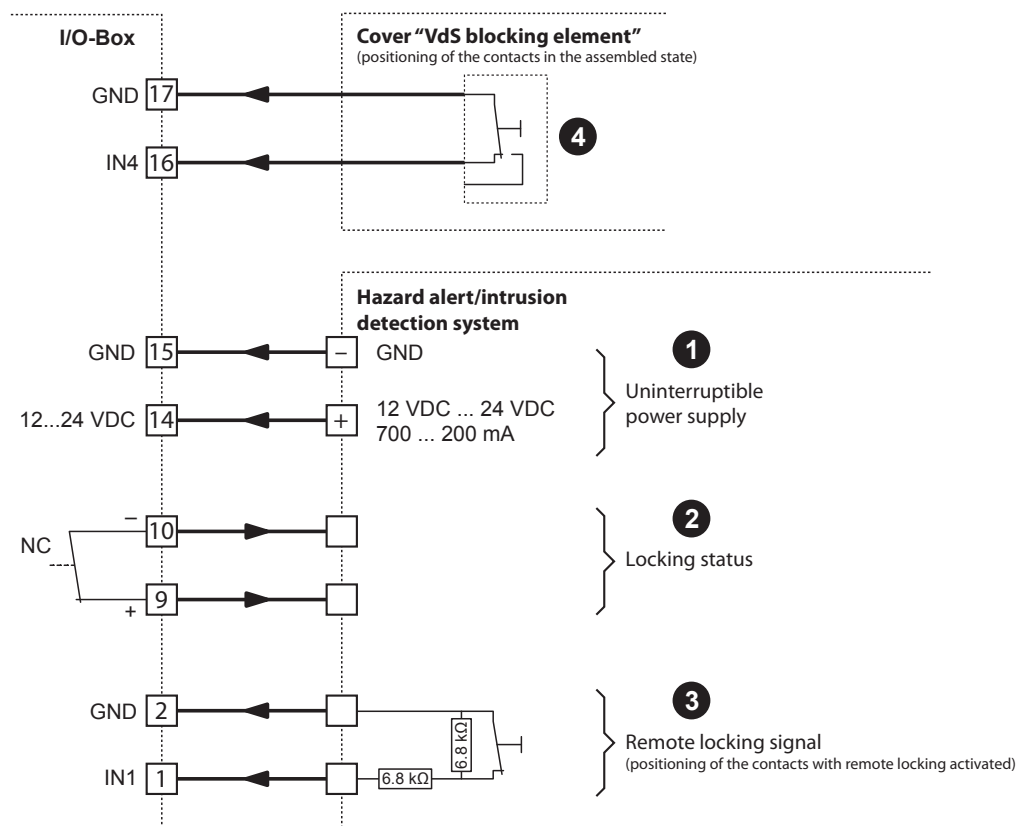
Note the following:

- Route all of the connection cables to the I/O-Box through the relevant opening in the cover "VdS blocking element".
- The following connection diagram illustrates the wiring of the hazard alert or intrusion detection system and the lifting contact of the cover "VdS blocking element" with the relevant in- and outputs of the I/O-Box in accordance with the factory configuration. For this purpose, also observe the following information.



AS384 Management-Suite Software

The AS384 Management-Suite Software can be used to reconfigure the functions of the in- and outputs. If the functionality of the in- and outputs is reconfigured, ensure that the connections to and from the hazard alert or intrusion detection system and the lifting contact of the cover "VdS blocking element" are connected to the correct connections of the I/O-Box.



Connection diagram for operating the locking system Paxos advance as a blocking element (**factory configuration**)

1 Connection of the uninterruptible power supply

The uninterruptible power supply of the hazard alert/intrusion detection system or an uninterruptible power supply unit must be connected to terminals 14 and 15 of the I/O-Box in accordance with the diagram.



Batteries or a rechargeable battery pack do not necessarily need to be inserted in the battery compartment of the input unit when Paxos advance is operated with an uninterruptible power supply.

2 Connection of the locking status signal

The locking status signal is required to inform the hazard alert/intrusion detection system whether the locks and door bolt contacts are open or closed. Output 2 of the I/O-Box (terminals 9 and 10) must be connected to the hazard alert/intrusion detection system in accordance with the diagram.

Functionality of output 2: Locking status

Contact open:	All of the locks and door bolts are open (unlocked)
Contact closed:	All of the locks and door bolts are closed (locked)

3 Connection of the remote locking signal

The remote locking signal is required for the hazard alert/intrusion detection system to lock or unlock the locking system. The isolated remote lock contact of the hazard alert/intrusion detection system must be connected with a tamper-monitoring switch on input 1 of the I/O-Box (terminals 1 and 2) in accordance with the diagram.

Functionality of input 1: Remote lock

Contact open:	Remote lock activated
Contact closed:	Remote lock deactivated

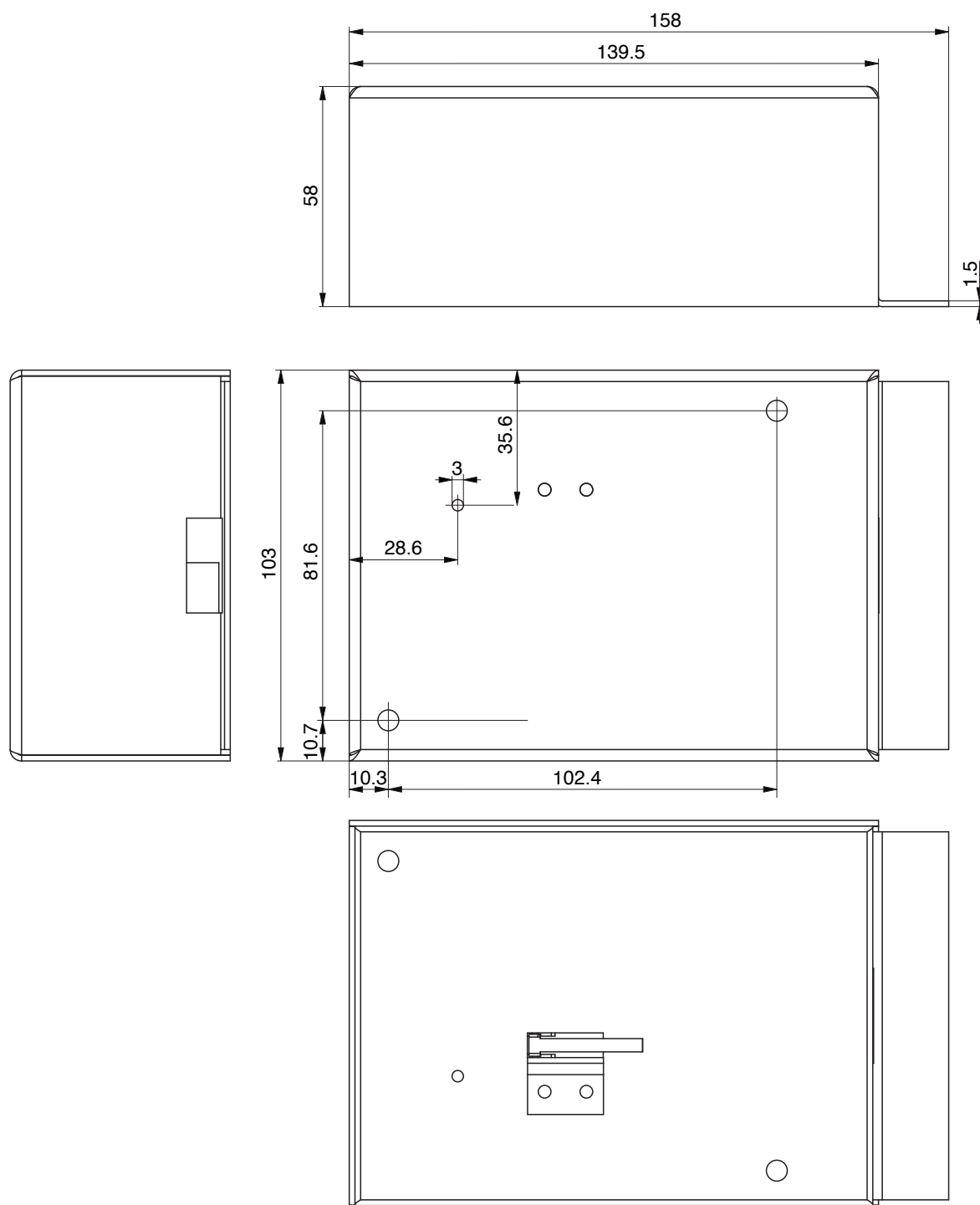
4 Connection of the lifting contact of the cover "VdS blocking element"

The lifting contact integrated in the cover must be connected to input 4 of the I/O-Box (terminals 16 and 17) in accordance with the diagram. The lifting contact opens as soon as the cover "VdS blocking element" is removed and thus indicates a tampering incident to the locking system.

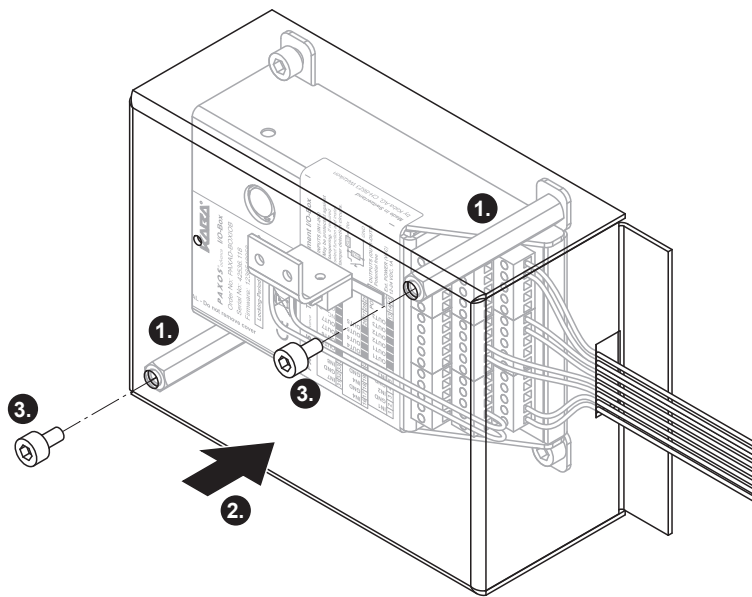
Functionality of input 4: External tamper input

Contact open:	Cover "VdS blocking element" removed
Contact closed:	Cover "VdS blocking element" mounted correctly (lifting contact positioned on the I/O-Box)

4.8.4 Mounting the cover “VdS blocking element”



Dimensional diagram of the cover "VdS blocking element"

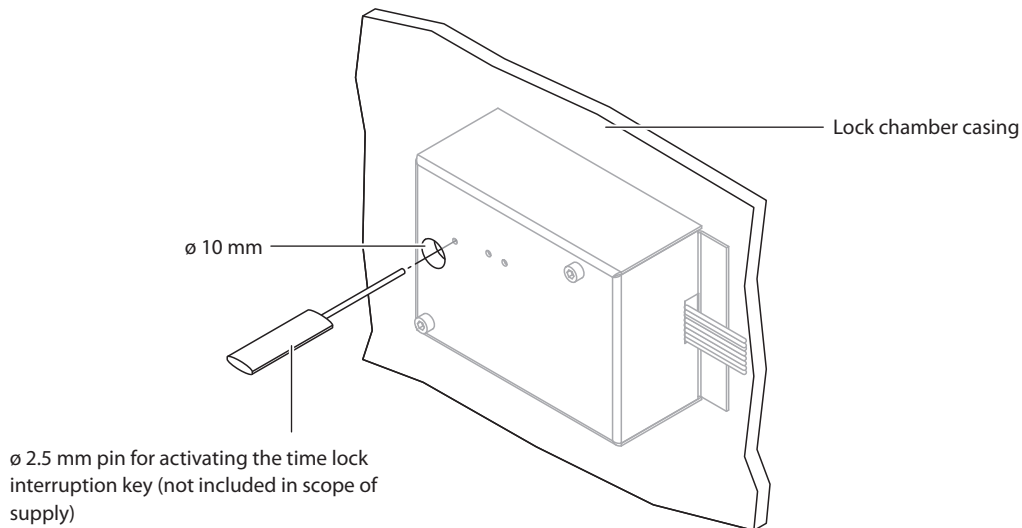
Mounting the cover "VdS blocking element"*Mounting the cover "VdS blocking element"*

1. Screw the two hexagonal thread bolts into the drill holes of the I/O-Box as illustrated.
2. Carefully place the cover "VdS blocking element" on the I/O-Box, ensuring that the cable of the lifting contact does not get caught under the proximity switch.
3. Attach the cover "VdS blocking element" with both of the M5 hexagonal socket head screws.



In accessible safes, a drill hole (to be activated with a pin in accordance with the VdS guideline) must be fitted above the drill hole for activating the red time lock interruption key in the lock chamber casing of the secure storage door (if available) so that the time lock interruption key can be activated from inside the lock chamber to initiate the time lock interruption in the event of an emergency.

If the red time lock interruption key is pressed the time lock is interrupted for 2 minutes.



Drill hole for the time lock interruption key

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4.8.5 Commissioning

Proceed as follows to commission the Paxos advance:

1. Following completion of the installation work, place the locking system Paxos advance into operation in accordance with the details in *section 6 "Addressing/functional check of the system"* and complete the addressing and functional checks.
Following completion of the fault-free addressing and functional checks of the locking system, proceed with the next step.
2. Activate the opening codes OCa1 and OCb1 as well as the master code MA1 for door lock 1, by assigning them individual codes (*see Operating Manual, section 5.2.4.1 "Setting the Opening Code OCa., OCb. and Master Code"*).
Note: The remote lock function can only be activated if the opening codes OCa1 and OCb1 and the master code MA1 for door lock 1 are activated.
3. Activate the remote lock function in the menu by selecting Settings>Lock 1 (*see Operating Manual, section 5.4.2.7 "Enabling/disabling the Remote Lock function"*).

The locking system Paxos advance is now configured to be operated as a blocking element. Approval to open the door locks or the opening blocks of the door locks is now only granted by the hazard alert/intrusion detection system.

- If control input 1 (terminals 1 and 2) is open, the locking system is blocked and the door locks cannot be opened.
- If control input 1 (terminals 1 and 2) is closed and the correct impedance (1 Rx) is detected, the remote lock is deactivated and the door locks can be opened.



The remote lock function is automatically deactivated by deleting master code MA1.

4.9 Mounting of the optional IP-Box

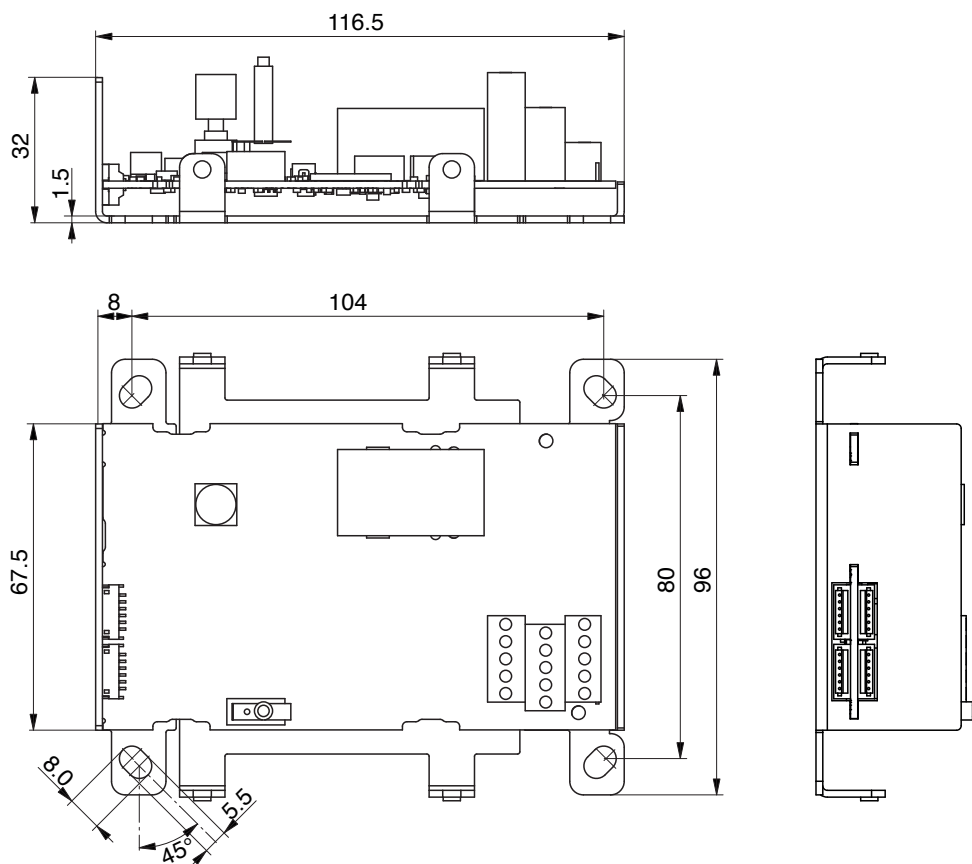


The locking system Paxos advance equipped with the optional IP-Box can be used as blocking element (according to VdS) to control the locking system and a hazard alert or intrusion detection system.

Additionally lock monitoring and the assault message in accordance with VdS are supported.

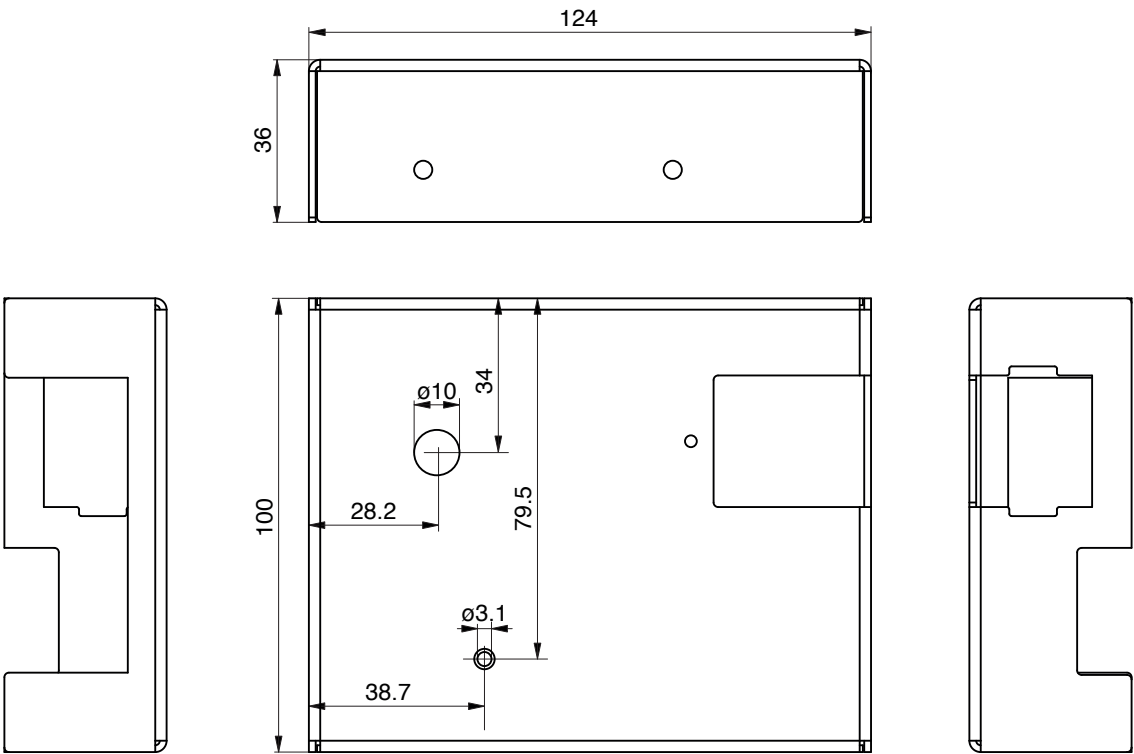
The IP-Box is mounted on the inside of the secure storage unit and connected to the locking system with both delivered bus cables and to the IP network with an Ethernet cable. You can find a schematic diagram for the different inputs and outputs in chapter 5.

IP-Box dimensions diagram (measurements in mm)



Dimensional diagram of the IP-Box

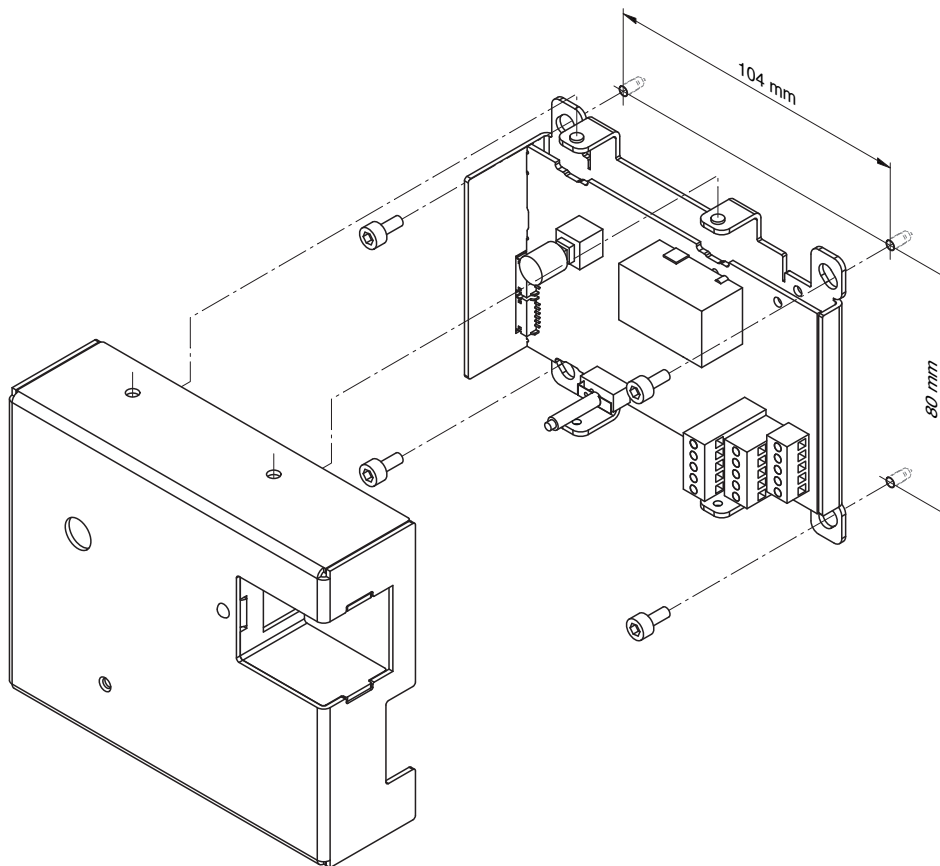
IP-Box cover dimensions diagram (dimensions in mm)



Dimensional diagram of the IP-Box cover

IP-Box mounting

1. Mark the four attachment holes at the intended site, drill, and cut an M5 thread in the hole (or a corresponding screw thread measured in inches). Minimum usable thread length 5 mm.
2. Fix the IP-Box inside the door body with four M5 (or a corresponding screw thread measured in inches) hexagon socket head screws (screw length in accordance with conditions on site). With a minimum usable thread length of 6 mm the starting torque must not exceed 200 Ncm.
3. Put on the IP-Box cover and engage it in the retaining burls of the four fixing lugs. Fix cover with at least two of the M2.5 hexagon socket head screws provided diagonally to the fixing lugs.

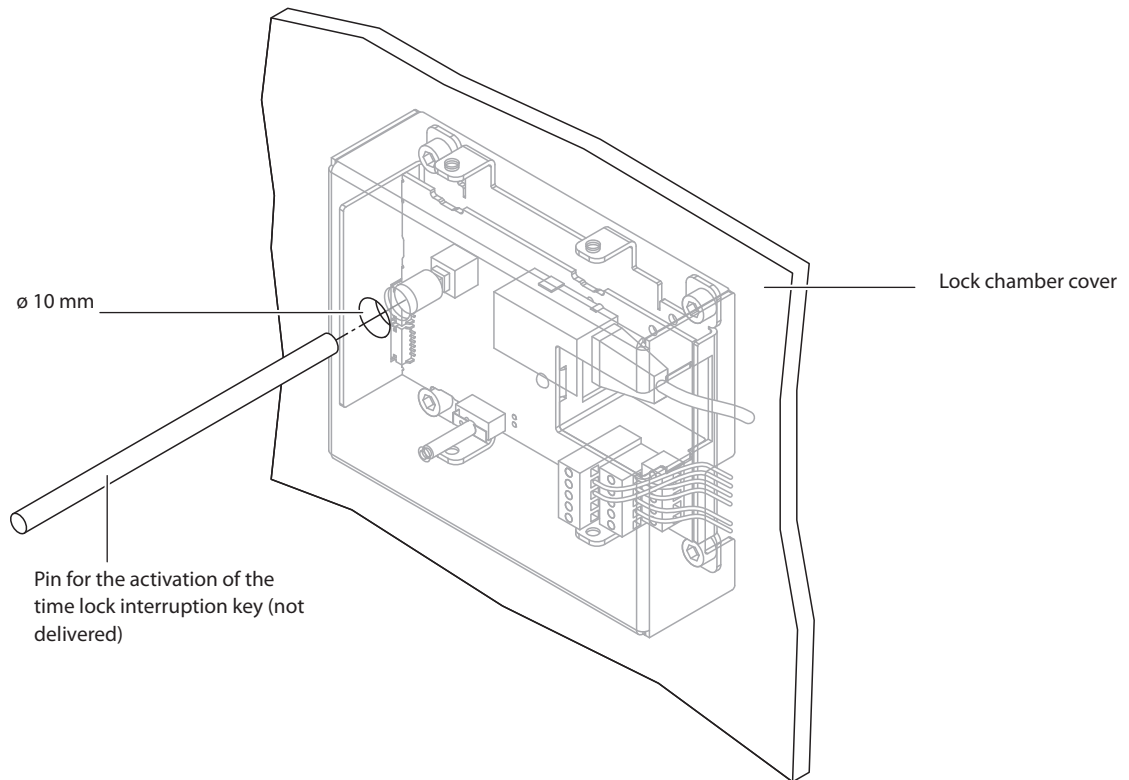


Mounting the IP-Box



In accessible safes, a drill hole (to be activated with a pin in accordance with the VdS guidelines) must be fitted in the lock chamber casing of the secure storage door (if available) above the IP-Box's red time lock interruption key so that the time lock interruption key can be activated from inside the lock chamber to initiate the time lock interruption in the event of an emergency.

If the red time lock interruption key is pressed the time lock is interrupted for 2 minutes.



Drill hole for the time lock interruption key

4.10 Using the IP-Box for the operation as blocking element

The locking system Paxos advance equipped with the optional IP-Box can be used as a blocking element (**according to VdS**) to control the locking system and a hazard alert or intrusion detection system.

The locking system Paxos advance equipped with the optional IP-Box can also be used as a lock monitoring system or burglar alarm in accordance with VdS.

4.10.1 Required components

The following components are required for operating the locking system Paxos advance as a blocking element:

- A locking system Paxos advance with lock class B (EN1300) / 2 (VdS 2396) or a locking system Paxos advance with lock class with lock class C (EN1300) / 3 (VdS 2396)
- Additional locks for locking systems with lock classes B (EN1300) / 2 (VdS 2396) or C (EN 1300) / 3 (VdS 2396)
- Optional IP-Box
- External uninterruptible power supply from the hazard alert or intrusion detection system or an uninterruptible power supply unit

4.10.2 Functional description

When operating the locking system Paxos advance as a blocking element in accordance with VdS, special in- and outputs of the IP-Box indicate standby activation to the hazard alert/intrusion detection system or prevent the locking system from being opened when the hazard alert/intrusion detection system is activated.

Locking process (activation of the hazard alert system)

The locking process starts automatically as soon as the door bolt contacts are closed, or if the locking mode is set to "Manual lock" as soon as the **<ENTER>** key or the dial knob on the input unit is pressed.

As soon as the lock bolt is closed, the "Locking status" signal output of the hazard alert or intrusion detection system indicates that the locking system is secured. The remote lock contact can be used to activate the remote lock via the hazard alert or intrusion detection system and arm the system. The locking system can no longer be opened.

Unlocking process (deactivation of the hazard alert system)

The remote lock must be deactivated via the remote lock contact of the hazard alert or intrusion detection system so that the locking system can be opened again (disarmed). The lock(s) can be opened again as soon as the remote lock is deactivated. When the locks and door bolt contacts are open, the "Locking status" signal output of the hazard alert or intrusion detection system indicates that the locking system is unlocked.

4.10.3 Connection work, alarm system

The following section details the electrical connections between the IP-Box and hazard alert or intrusion detection system that must be implemented to operate the locking system Paxos advance as a blocking element. If required, in- and outputs of the IP-Box that are not used can be connected to the hazard alert or intrusion detection system in accordance with the details in section 5.4 "External connections to the IP-Box".



Note the following:

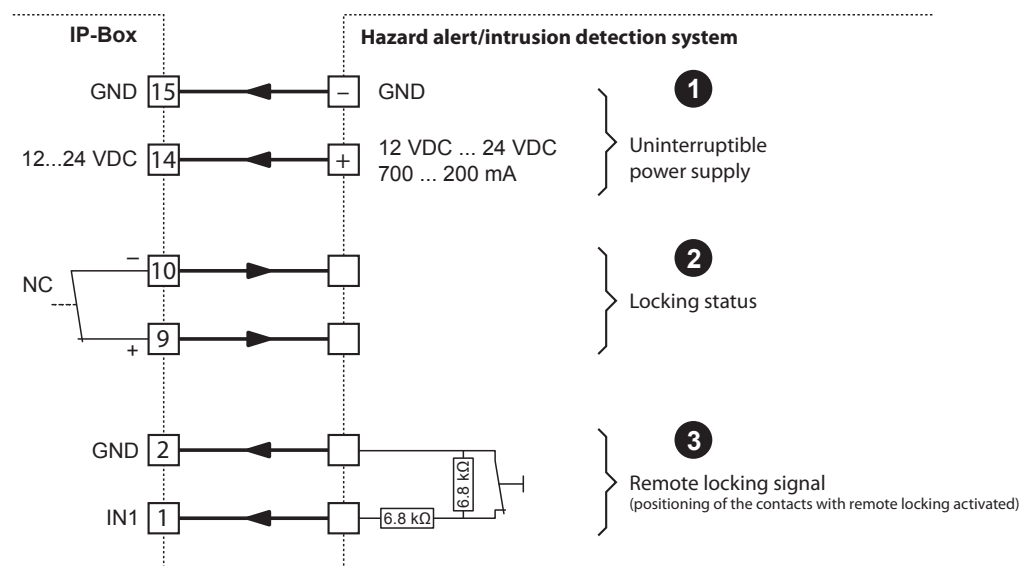
- Route all of the connection cables to the IP-Box through the relevant opening in the IP-Box cover.
- The following connection diagram illustrates the wiring of the hazard alert or intrusion detection system with the relevant in- and outputs of the IP-Box in accordance with the factory configuration. For this purpose, also observe the following information.



AS384 Management-Suite Software

The AS384 Management-Suite Software can be used to reconfigure the functions of the in- and outputs. If the functionality of the in- and outputs is reconfigured, ensure that the connections to and from the hazard alert or intrusion detection system are connected to the correct connections of the IP-Box.

Important! Input 1 must mandatory be set for tamper monitoring (factory configuration) otherwise the operation of the blocking element is deactivated.



Connection diagram for operating the locking system Paxos advance as a blocking element (**factory configuration**)

1 Connection of the uninterruptible power supply

The uninterruptible power supply of the hazard alert/intrusion detection system or an uninterruptible power supply unit must be connected to terminals 14 and 15 of the IP-Box in accordance with the diagram.



Batteries or a rechargeable battery pack do not necessarily need to be inserted in the battery compartment of the input unit when Paxos advance is operated with an uninterruptible power supply.

2 Connection of the locking status signal

The locking status signal is required to inform the hazard alert/intrusion detection system whether the locks and door bolt contacts are open or closed. Output 2 of the IP-Box (terminals 9 and 10) must be connected to the hazard alert/intrusion detection system in accordance with the diagram.

Functionality of output 2: Locking status

Contact open:	All of the locks and door bolts are open (unlocked)
Contact closed:	All of the locks and door bolts are closed (locked)

3 Connection of the remote locking signal

The remote locking signal is required for the hazard alert/intrusion detection system to lock or unlock the locking system. The isolated remote lock contact of the hazard alert/intrusion detection system must be connected with a tamper-monitoring switch on input 1 of the IP-Box (terminals 1 and 2) in accordance with the diagram.

Functionality of input 1: Remote lock

Contact open:	Remote lock activated
Contact closed:	Remote lock deactivated

5 Electrical Installation

5.1 Important information regarding the electrical installation

The power supply (inserting the batteries/rechargeable battery pack into the input unit and/or connecting the external power supply) must only be connected following completion of various installation tasks. Before replacing components of the system always ensure the system is free of tension, i.e. remove the batteries/rechargeable battery pack from the input units and disconnect the external power supply.



CAUTION

The **electronic parts of the components** of the locking system Paxos advance are **sensitive to electrostatic discharges**. **Measures to protect against electrostatic discharges (ESD protection)** must be implemented to protect these parts during the installation (earthing the container, earthed foot mat, person completing the work must be continuously attached to an earth connection).

All of the cables must be laid in such a way that they do not come in contact with moving parts or sharp edges. All of the cables must be permanently secured in their position.

The plug must be inserted carefully, accurately and precisely to ensure a safe electrical connection is provided. Carefully pull on the wire to disconnect any plug connections.

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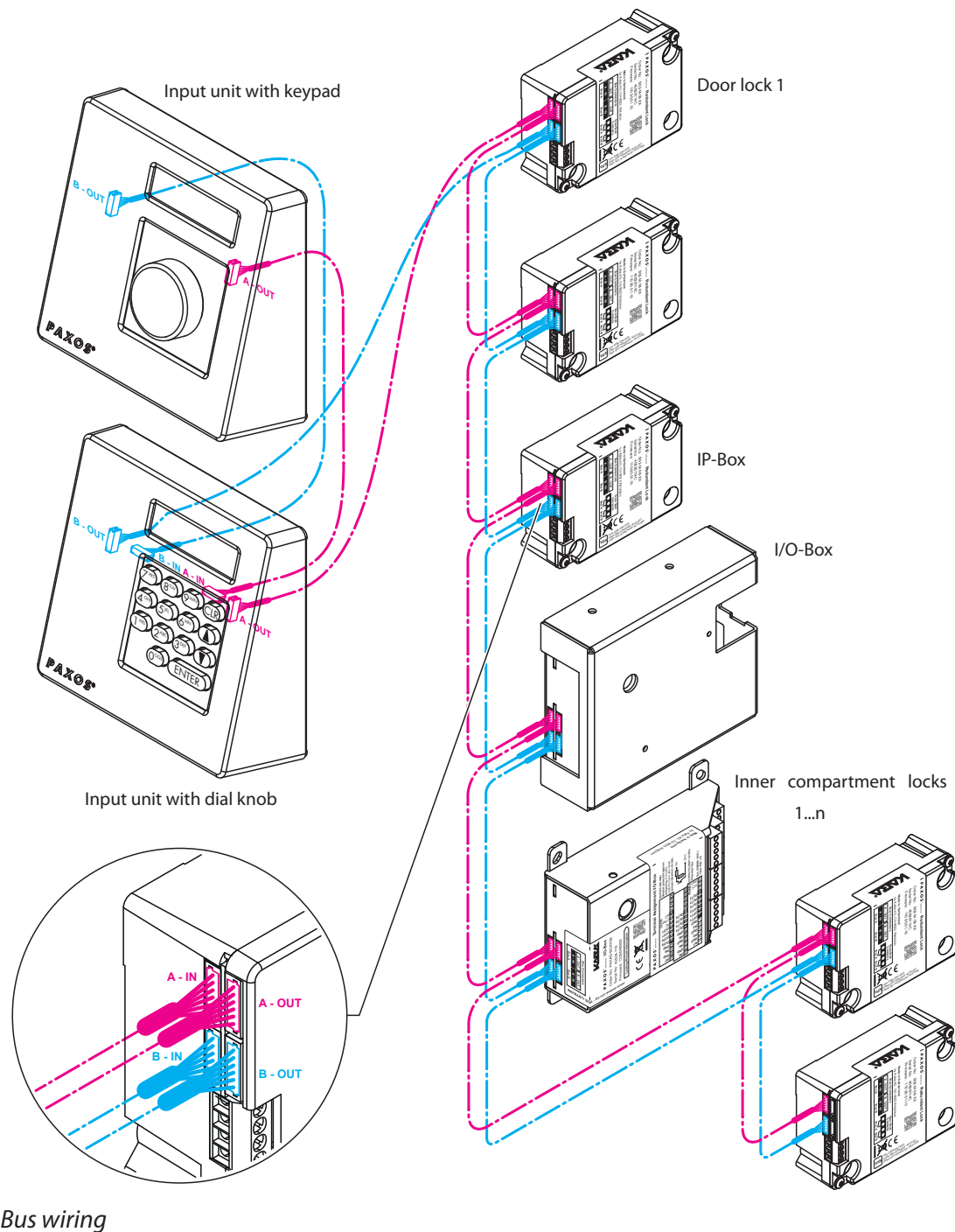
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5.2 Connecting the input unit, locks, I/O-Box and IP-Box with the bus cable

The components of the locking system Paxos advance are connected via the two redundant bus systems A and B, whereby the relevant output of bus A and bus B of a component are connected to the input of bus A and bus B of the next component in accordance with the following circuit diagram. A certain chronological order of the component cables does not have to be maintained.

Please consider the following number of components permitted per system:

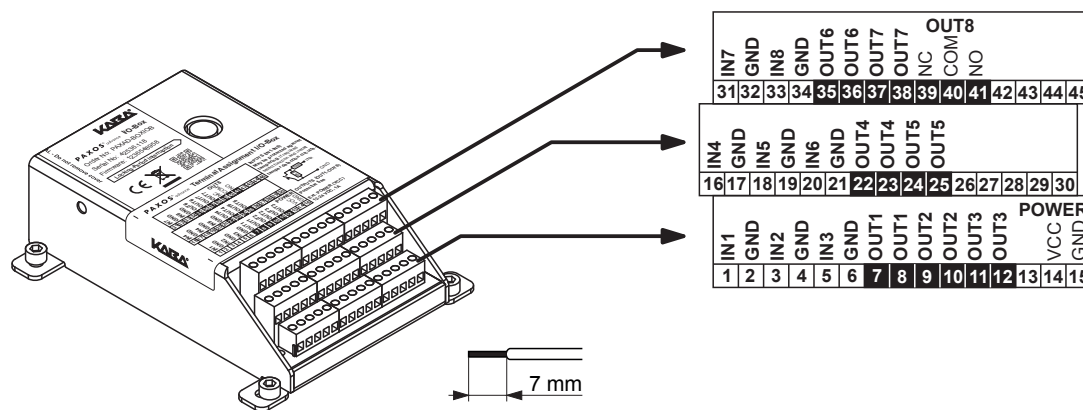
- max. 12 components
- max. 3 input units
- max. 3 I/O-Boxes
- max. 1 IP-Box



5.3 External connections on the I/O-Box

5.3.1 Terminal assignment of the I/O-Box

The I/O-Box comprises eight inputs and eight outputs and connections for the power supply.

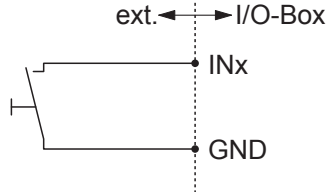
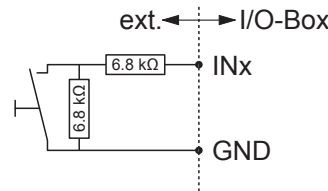
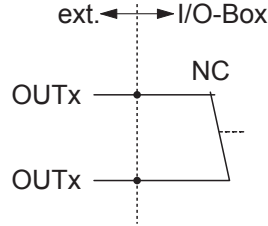


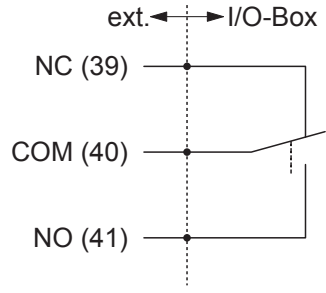
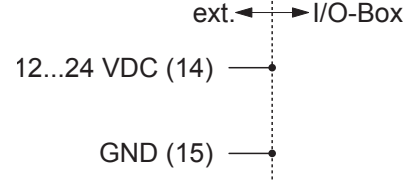
I/O-Box terminal assignment



The I/O-Box functions are only available in its entirety, if the I/O-Box is connected to an external power supply. In case of a power failure the batteries in the input unit ensure the **lock functions over a limited period of time**, but not the entire functions of the I/O-Box.

5.3.2 I/O-Box connection data

Terminal	Description	Load capacity/comments
1 (IN1) / 2 (GND) **	Input 1 Standard: Remote lock	12 ... 24 VDC (min. 5mA)
3 (IN2) / 4 (GND) *	Input 2 Standard: Bypass opening delay Note: the bypass opening delay is immediately cancelled, if the input signal switches back into the passive status.	<p>* Connection without tamper monitoring circuit (factory configuration):</p>  <p>** Connection with tamper monitoring circuit (factory configuration):</p>  <p>Important: the use of the tamper monitoring circuit requires an external voltage supply!</p>
5 (IN3) / 6 (GND) *	Input 3 Standard: Time lock interruption Note: the time lock interruption is valid for 2 minutes from turn-on time.	
16 (IN4) / 17 (GND) *	Input 4 Standard: external tamper contact	
18 (IN5) / 19 (GND) *	Input 5 Standard: not assigned	
20 (IN6) / 21 (GND) *	Input 6 Standard: not assigned	
31 (IN7) / 32 (GND) *	Input 7 Standard: not assigned	
33 (IN8) / 34 (GND) *	Input 8 Standard: not assigned	
7 (OUT1) / 8 (OUT1)	Output 1 Standard: Lock 1 open	Voltage load at the output: max. 24 VAC
9 (OUT2) / 10 (OUT2)	Output 2 Standard: All locks and door bolts open	Current load at the output: max. 0.4 A at 25°C max. 0.3 A at 50°C
11 (OUT3) / 12 (OUT3)	Output 3 Standard: Tamper resistance surveillance input	 <p>Note: the standard setting (NC: normally closed) can be changed via the AS384 Management-Suite Software, if the standard (see description in the table) does not apply.</p>
22 (OUT4) / 23 (OUT4)	Output 4 Standard: Penalty lock	
24 (OUT5) / 25 (OUT5)	Output 5 Standard: Duress alarm impulse (Impuls length 2..3 seconds)	
35 (OUT6) / 36 (OUT6)	Output 6 Standard: Duress alarm static	
37 (OUT7) / 38 (OUT7)	Output 7 Standard: Battery compartment open	

Terminal	Description	Load capacity/comments
39 (NC) / 40 (COM) / 41 (NO)	Output 8 Standard: Monitoring the external power supply	<p>Output voltage: max. 24 VAC</p> <p>Current load at the output: max. 0.4 A at 25°C max. 0.3 A at 50°C</p>  <p>Note: the standard setting (NC and COM connected) can be changed via the AS384 Management-Suite Software, if the standard (see description in the table) does not apply.</p>
14 (VDC) / 15 (GND)	External power supply Note: if a locking system comprises IP and I/O boxes the external power supply must be connected to the IP box.	<p>12 VDC ... 24 VDC / 700 ... 200 mA</p> 



AS384 Management-Suite Software

The AS384 Management-Suite Software can be used to reconfigure the functions of the in- and outputs. Additionally, it can be specified which inputs must be connected via the tamper monitoring circuit (only input 1 is configured for the connection of a tamper monitoring circuit at the factory).

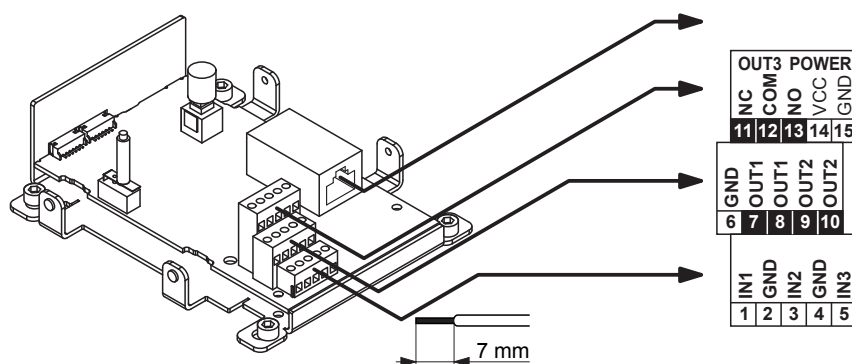
5.4 External connections to the IP-Box

5.4.1 Assigning IP-Box terminals and the Ethernet interface

The IP-Box has three inputs and outputs for the power supply and an Ethernet interface.



The IP-Box functions are only available in its entirety, if the IP-Box is connected to an **external power supply**. In case of a power failure the batteries in the input unit ensure the **lock functions over a limited period of time**, but not the entire functions of the IP-Box.



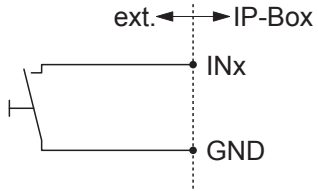
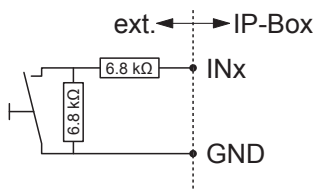
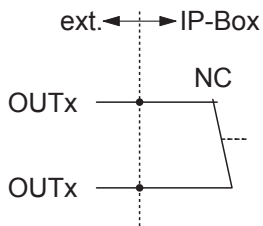
IP-Box terminal assignment and Ethernet interface

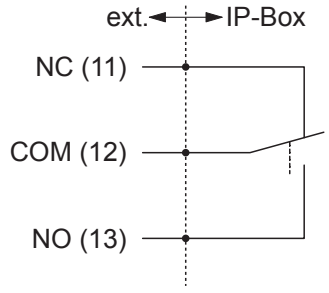
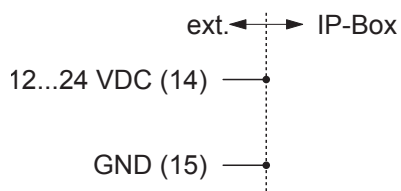


Note on network safety:

It is recommended to operate the lock systems (IP-Boxes) only within protected firm networks.

5.4.2 IP-Box connection data

Terminal	Description	Capacity/Comments
1 (IN1) / 2 (GND) **	Input 1 Standard: Remote lock	12 ... 24 VDC (min. 5 mA) * Connection without tamper monitoring circuit (factory configuration):  ** Connection with tamper monitoring circuit (factory configuration): 
3 (IN2) / 4 (GND) *	Input 2 Standard: Bypass opening delay	
5 (IN3) / 6 (GND) *	Input 3 Standard: Time lock interruption	
7 (OUT1) / 8 (OUT1)	Output 1 Standard: Lock 1 open	Voltage load at the output: Max. 24 VAC Current load at the output: Max. 0.4 A at 25°C Max. 0.3 A at 50°C  Note: the standard setting (NC: normally closed) can be changed via the AS384 Management-Suite Software, if the standard (see description in the table) does not apply.
9 (OUT2) / 10 (OUT2)	Output 2 Standard: All locks and door bolts open	

Terminal	Description	Capacity/Comments
11 (NC) / 12 (COM) / 13 (NO)	Output 3 Standard: Tamper resistance surveillance input	<p>Voltage load at the output: Max. 24 VAC</p> <p>Current load at the output: Max. 0.4 A at 25°C Max. 0.3 A at 50°C</p>  <p>Note: the standard setting (NC and COM connected) can be changed via the AS384 Management-Suite Software, if the standard (see description in the table) does not apply.</p>
14 (VCC) / 15 (GND)	External power supply (always required for the IP box) Note: if a locking system comprises IP and I/O boxes the external power supply must be connected to the IP box.	<p>12 VDC ... 24 VDC / 700 ... 200 mA</p> 



AS384 Management-Suite Software

The input and output functions can be reconfigured with the AS384 Management-Suite Software. This can also determine which inputs need to be connected to a tamper monitoring circuit (ex work, only input 1 is configured for connection to a tamper monitoring circuit).

In addition, with the AS384 Management-Suite Software the Paxos advance locking system can be configured for use with an IP network.

6 Addressing/functional check of the system

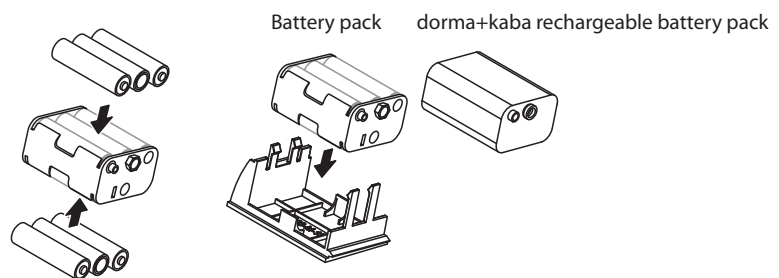


Requirement: The **addressing and functional check** of the system described below **must** be implemented **when the container door is open**.

Proceed as follows to implement the addressing and functional check of the system:

Insert the batteries/rechargeable battery pack and/or switch on the external power supply

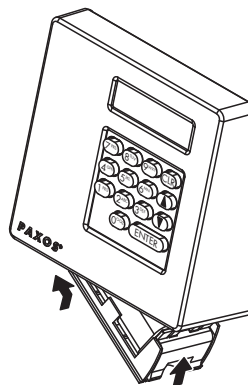
1. Batteries must be inserted into the battery pack based on the markings – **observe the polarity**. The battery pack or dorma+kaba rechargeable battery pack must then be inserted into the battery compartment (only one position possible).



If your system is connected to a **non-fail safe power supply** via the I/O- or IP-Box, a **battery/rechargeable battery pack must** be inserted in the battery compartment of the input unit to ensure power is supplied to the system in the event of a power failure. If the locking system contains more than one input unit, then a battery/rechargeable battery pack is to be inserted into each input unit. The input unit control automatically detects whether a battery pack is inserted in the battery compartment and charges it while operating with an external power source.

If the I/O- or IP-Box is connected to an uninterruptible power supply (UPS), a battery/rechargeable battery pack does not need to be inserted in the battery compartment of the input unit.

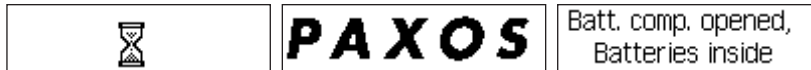
2. Then insert from below the battery holder (with or without the batteries or rechargeable battery pack) into the input unit as shown below (the holder must snap into the input unit).





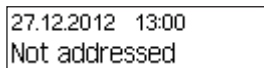
If your system is operated with an external power supply, switch on the power supply now.

3. A test program is started as soon as the batteries or rechargeable battery pack are inserted or the external power supply is switched on. The following displays appear successively.



If a fault message is displayed, the fault must first be resolved in accordance with the notes in section 8 of the operating instructions.

4. Check the display of the battery compartment contents. Then acknowledge the message by selecting the **<ENTER>** button or by pressing the dial knob.
Note: If for any reason the indicated battery content does not match the actual content, set the correct battery content immediately after entering the battery code. Please refer to the information in the Installation Instructions.
5. Press the **<ENTER>** key or dial knob. The **"Not addressed" system status** is displayed.



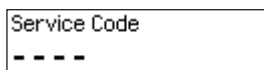
Addressing the system

1. Press any key or the dial knob to activate the input unit. The following displays appear successively.

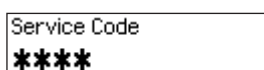


2. **Keypad input unit:** Simultaneously press the **<CLR>** and **<ENTER>** key until the service code input appears.

Dial knob input unit: Press the dial knob until the info menu appears, then turn the still pressed dial knob to the left (counterclockwise) and then to the right (clockwise). The service code input will appear.



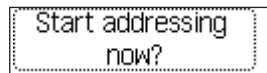
3. Enter the service code **"4714"** via the keypad or dial knob. Confirm the code with the **<ENTER>** key or by pressing the dial knob.



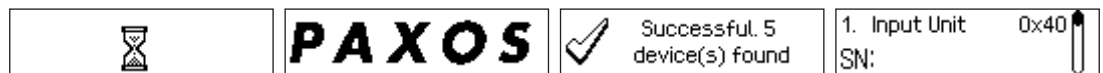
4. Select the "System" menu option in the service menu and press the **<ENTER>** button or dial knob. Then select the "Addressing" menu option using one of the arrow keys or by turning the dial knob.



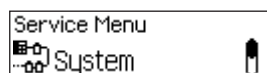
5. Press the **<ENTER>** key or dial knob. You are asked if you would like to start the addressing process.



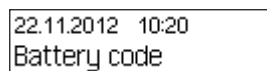
6. Press the **<ENTER>** key or the dial knob to start the addressing process. The addressing process is started and the following displays are shown successively. The system is now addressed. You can now successively query the addresses of the system components by using the arrow keys or turning the dial knob.



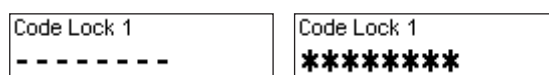
7. Press the **<ENTER>** key or the dial knob to return to the service menu.



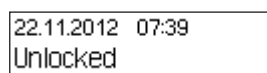
8. Press the **<CLR>** key or press and hold the dial knob for >1.5 seconds. You will then be prompted to enter the battery code.



9. Press the **<ENTER>** key or dial knob. Then enter the battery code "10203040" (factory code; or "0010203040" with ID+PIN mode) via the keypad or dial knob. Confirm the code with the **<ENTER>** key or by pressing the dial knob.

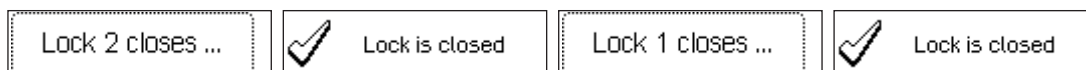


The system status "Unlocked" is displayed. The system is now addressed. Then complete a functional check.

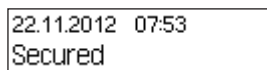


Functional check

1. Close the boltwork if the container door is open. All of the door locks should automatically close one after another. The following displays appear.



The system status "Secured" is displayed.



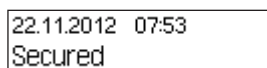
If the locks do not close, check whether the door bolt contacts are closed. If the door bolt contacts are not closed, set them so that they are securely closed when the boltwork is closed.

2. Check the play of the lock bolt(s). The play of the lock is correct, if the lock bolt can be moved slightly back and forth in the closed position.

**Note!**

If the lock bolt cannot be moved or can only be moved in one direction, the lock has little play which can cause problems during operation. In this case, the carrier mechanism or the lock must be readjusted.

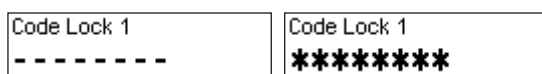
3. Press any key or the dial knob to activate the input unit. The system status is displayed.



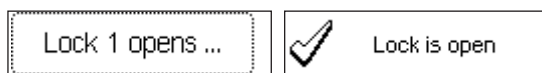
4. Press the **<ENTER>** key or the dial knob and the first menu option of the operator menu is displayed ("Open"). Then press the **<ENTER>** key or dial knob again.



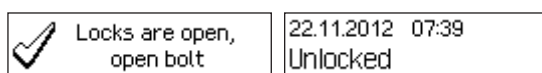
5. The code input to open door lock 1 is displayed. Enter the opening code "10203040" (factory code ; or "0010203040" with ID+PIN mode) via the keypad or dial knob. Confirm the code with the **<ENTER>** key or by pressing the dial knob.



The lock is opened.



6. If there are more door locks, the code input for the next door lock is automatically displayed. Repeat step 5 for all of the other door locks.
7. Once all of the door locks are open, you will be prompted to open the boltwork. Open the boltwork and the message "Unlocked" is displayed.





If the boltwork is not opened, the locks will automatically close again after a certain amount of time.

8. Close (step 1) and open (step 3 to 7) all of the locks at least two more times to ensure the reliability of the redundant system parts is checked. If all of the locking and opening processes up to this point have been completed without any fault messages, the door can actually be locked. Otherwise, resolve any faults and repeat the functional checks.

The system is now ready to be commissioned by the customer. The opening code Oca.. is enabled on all of the locks and is set to factory code "10203040" ("0010203040" with ID+PIN mode). Further information is included in the Operating Manual for Paxos advance.

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