

**Single point latch**  
**3000-U330-xx**



**Operating Manual**

Rel. 1.00 (01/25)



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# 1 General information

This manual will help you to install the single point latch securely. The single point latch system is referred to as the "device" for short. These instructions are part of the device.

- Always keep these instructions with the device.
- Include these instructions when you sell or otherwise redistribute the device.

Various elements of this guide are provided with defined design features. So, you can easily distinguish the following elements:

normal text

- First level enumeration
- Action steps

## Manufacturer's address

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Before installing and commissioning the device, read this manual carefully.

# 2 Safety

## 2.1 Intended use

The 3000-U330-xx single point latch system is used to accommodate a locking element, e.g. a catch or a locking bolt. The locking element is used to lock a door, flap or similar. The locking element can be made of steel or another suitable material.

## 2.2 Ambient conditions

Make sure that the device is only installed under is used in the following environmental conditions:

- Temperature: -20 °C to +60 °C
- Relative humidity: 15% to 85%, non-condensing.

The device meets the requirements of IP2x protection.

## 2.3 Basic safety instructions

### 2.3.1 Avoid electric shock

Electric shock is possible when connecting.

Make sure that the device is only connected by qualified electricians.

- Make sure that the conditions at the installation site correspond to the protection class of the device. The protection class can be found in the technical data.
- Before connecting, make sure there is no voltage.

- Do not operate a visibly damaged device

### 2.3.2 Avoid injuries

Injuries to the eyes due to drilling dust when drilling holes are possible.

- Wear safety glasses.

### 2.3.3 Avoid property damage

Damage to the electrical connection cable due to kinks.

- Lay the connection cable to the device so that it is not bent or crushed.

Damage to the device due to excessive torque during fastening.

- Tighten screws and nuts with max. 2 Nm.

Damage to the device due to moisture.

- Make sure that the conditions at the installation site correspond to the protection class of the device. The protection class can be found in the technical data.

## 2.4 Personnel qualification

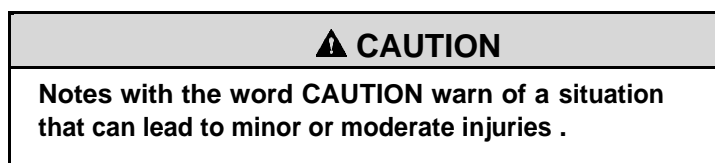
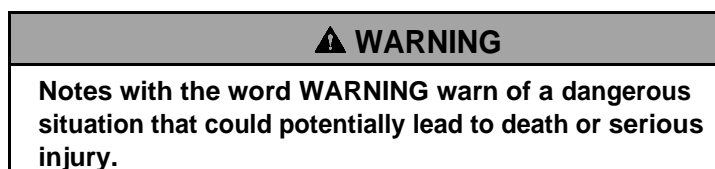
People who install or connect the device must have the following skills:

- Notice visible damage to the device before installation
- Fastening screws or nuts with a specified torque
- Assess and avoid hazards arising when handling electrical equipment
- Make electrical connections in accordance with valid regulations and guidelines (qualified electrician)

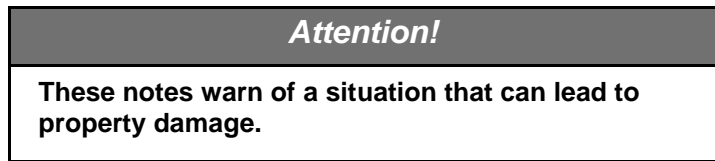
## 2.5 Personal protective equipment

- Wear appropriate personal protective equipment when working with the device.
- When putting together personal protective equipment, observe and follow the regulations at the place of use.
- Wear safety glasses when drilling holes.
- Wear hearing protection when drilling holes

## 2.6 Design features of warnings

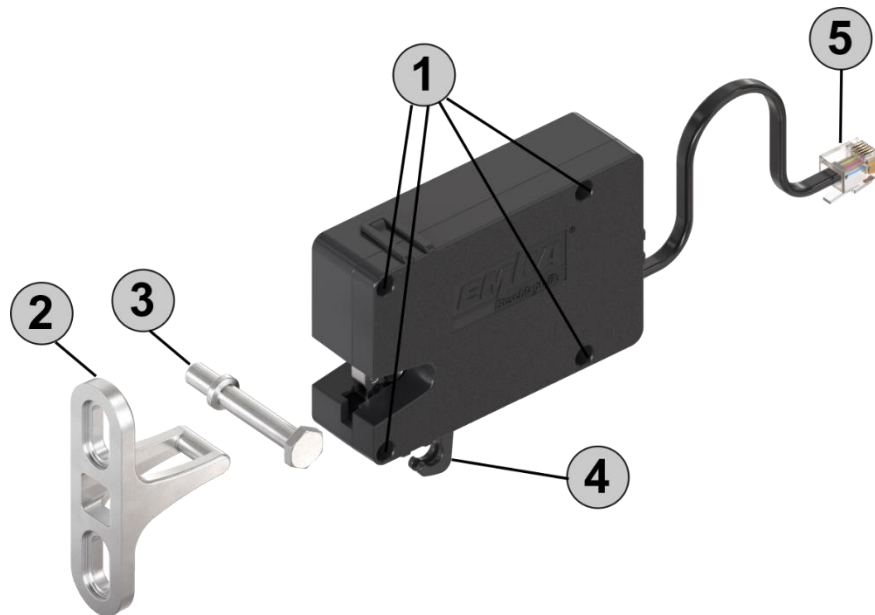


## 2.7 Design features of property damage notices



## 3 Description

### 3.1 Overview



Number	Naming
1	Holes to attach the device
2	Lock holder
3	Locking bolt
4	Mechanical release lever
5	Connector RJ45

### 3.2 Task and function

The 3000-U330-xx single point latch is used to hold a locking element, e.g. a catch or a locking bolt. The locking element is used to lock a door, flap or similar. The locking element can be made of steel or another suitable material.

The catch is included. The locking bolt (item no.: 3000-102-JB) is available as an accessory.

Depending on the version, the locking mechanism is released by switching the operating voltage on or off or by an electrical impulse.

The device is equipped with a device for manual release lever on the underside. A suitable Bowden cable can be attached here.

### 3.3 Nameplate

The nameplate is located on the housing of the device. It contains the following information:

- Device designation
- Type designation
- Hardware-Version
- Power supply information
- Information on contact limit data
- Table with connection assignment
- Serial number
- Exclamation mark (instructions for use must be observed).

## 4 Transport and storage

To transport and store the device, do the following:

- Transport and store the device in its original packaging.
- Store the device in a dry room.

## 5 Mounting the device

### 5.1 Scope of delivery

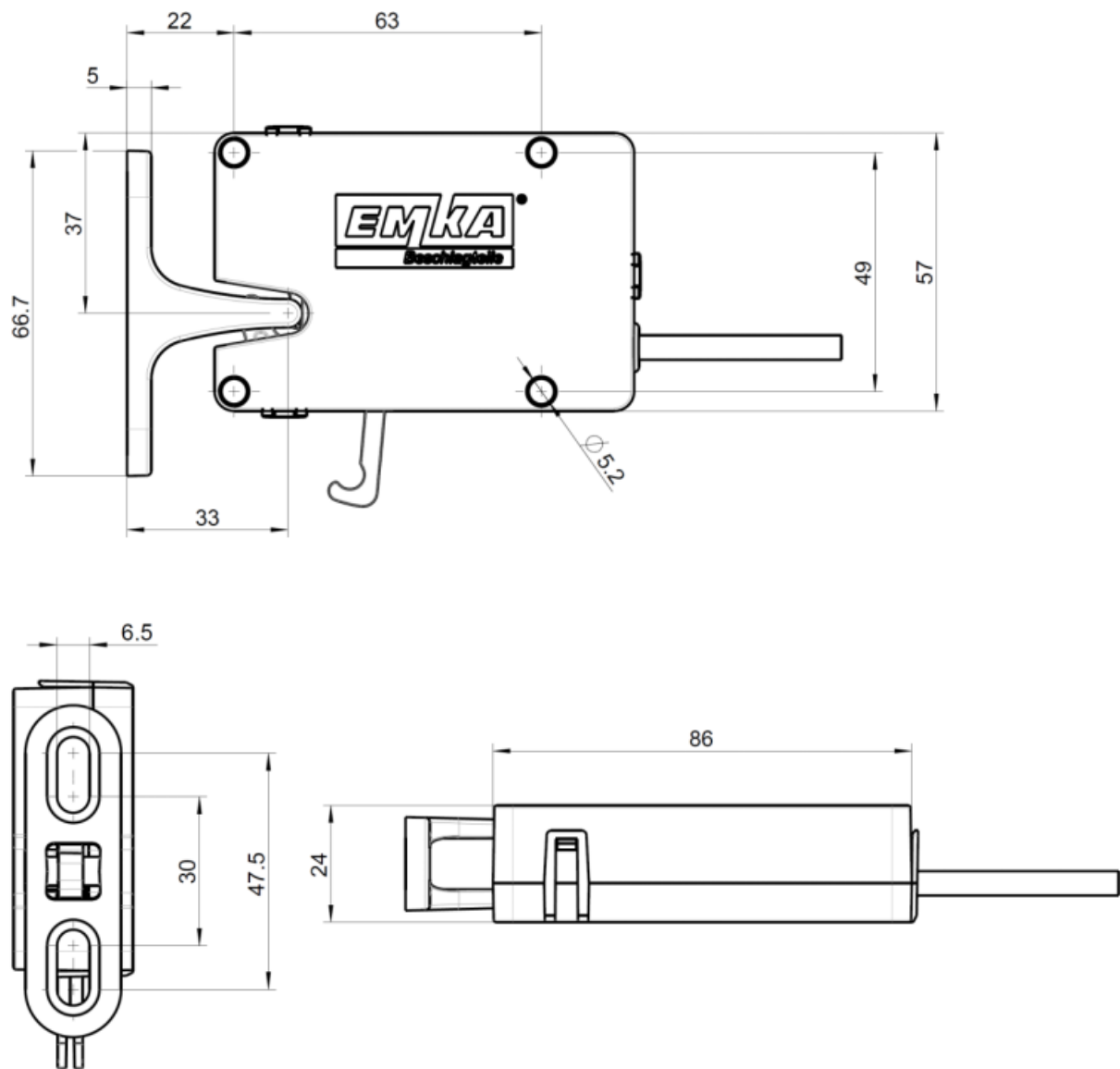
- Device
- Catch
- Data sheet
- Carton (packaging).

### 5.2 Required tools and aids

To install the device, you will need the following:

- Open-end wrench SW8
- Torque wrench (2 Nm) with insert SW8
- Drilling machine
- Drill with diameter 5.2 mm
- Calipers
- Plummet

### 5.3 Dimensional sketches



### 5.4 Perform assembly

#### **⚠ WARNING**

**Electric shock is possible due to improper connection of the device.**

- Make sure that the device is only connected by qualified electricians.
- Before connecting, make sure there is no voltage.



**⚠ CAUTION**

**Injuries to the eyes due to drilling dust when drilling holes are possible.**

- Wear safety glasses.

**ATTENTION**

**Damage to the device due to excessive torque during fastening.**

- Tighten screws and nuts with max. 2 Nm.

#### 5.4.1 Mounting the device with the catch

To mount the device with catch (1), proceed as follows:



- Draw the position of the drill holes according to the dimensional sketch (ref. to 5.3).
- Drill the holes.
- Attach the device to the frame or case (not shown).
- Secure the device with screws. Tighten the screws with a torque of max. 2 Nm.

To mount the catch on a door / flap (not shown), proceed as follows:

- Draw the position of the mounting holes according to the dimensional sketch (ref. to 5.3).
- Drill the mounting holes.
- Attach the catch (1) with two screws. Tighten the screws with a torque of max. 2 Nm.

Alternatively, you can attach the device or the catch with threaded bolts. To do this, proceed as follows:

- Position the threaded bolts according to the corresponding stitch dimensions from the dimensional sketch (ref. to 5.3).
- Attach the device or lock holder to the threaded bolts (not shown).
- Screw the nuts onto the threaded bolts. Tighten the nuts with a torque of max. 2 Nm. at.

#### 5.4.2 Mounting the device with locking bolt

To mount the device with a locking bolt (1), proceed as follows:



- Draw the position of the holes according to the dimensional sketch (ref. to 5.3).
- Drill the holes.
- Attach the device to the frame or case (not shown).
- Secure the device with screws. Tighten the screws with a torque of max. 2 Nm.

To attach the locking bolt to a door/flap or drawer, do the following:

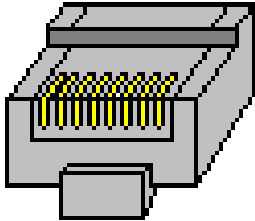
- Draw the position of the hole according to the dimensional sketch (ref. to 5.3).
- Drill the hole for the locking bolt
- Insert the locking bolt (1) into the hole.
- Secure the locking bolt (3) with a nut. Tighten the nut with a torque of max. 2 Nm.
- Alternatively, screw the locking bolt (1) into a prefabricated thread (M6) (not shown).

#### 5.5 Emergency release

The device is equipped with an emergency release lever. It can be used for mechanical unlocking in the event of malfunction. The release lever can be operated via a Bowden cable.

## 6 Electrical connection and assignment of RJ45 connector

- Connect the device to the controller via the RJ45 connector.
- For the assignment of the electrical connections, see the table below.
- Check that the device is working properly.

Connector RJ45	Pin	Basic, basic delayed re-lock, energy store, energy store delayed re-lock	Battery backup
 87654321	1	-	-
	2	-	GND
	3	Contact	GND
	4	V (-)	GND
	5	V (+)	Release (+)
	6	Contact	Out (open collector)
	7	-	V (+)
	8	-	-

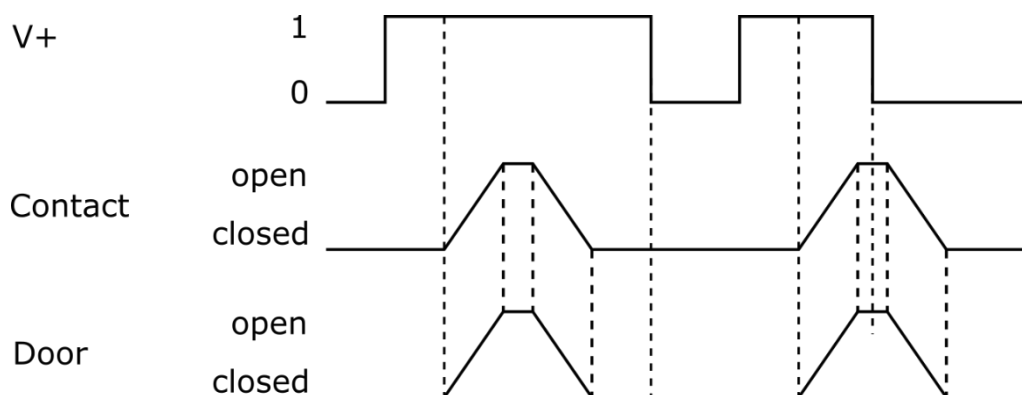
## 7 Function and operation of the individual versions

### 7.1 3000-U330-01 Version „Basic“

The "Basic" version is unlocked by applying the operating voltage to the V (+) and V (-) terminals for at least 5 seconds. Regardless of whether the operating voltage is still applied or not, the door locks as soon as it is closed again.

A locked door is signaled by a short circuit at the two contact terminals. When the door is open, these terminals are not connected.

The following figure shows the signal diagram.

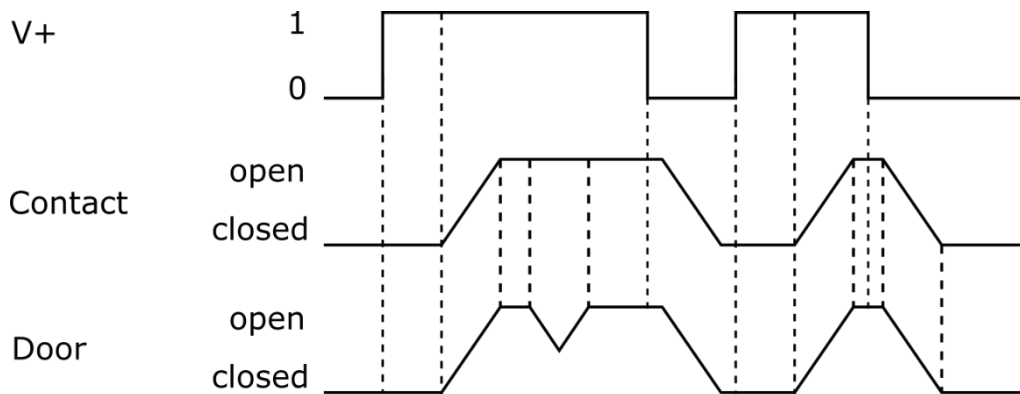


## 7.2 3000-U330-02 Version „Basic delayed re-lock“

The "Basic delayed re-lock" version is unlocked by applying the operating voltage to the V (+) and V (-) terminals for at least 5 seconds. As long as the operating voltage is applied, the door cannot be locked. After switching off the operating voltage, the door locks as soon as it is closed again.

A locked door is signaled by a short circuit at the two contact terminals. When the door is open, these terminals are not connected.

The following figure shows the signal diagram.

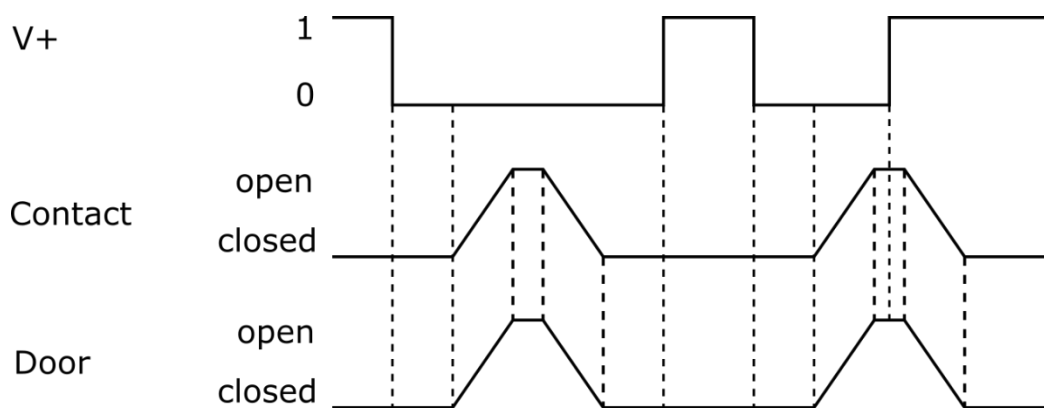


## 7.3 3000-U330-03 Version „Energy store“

The "Energy store" version must be permanently connected to the operating voltage via the V (+) and V (-) terminals in order to keep the door locked. Unlocking is done by switching off the operating voltage. After switching off the operating voltage, the door locks again as soon as it is closed again. Before reopening, the lock must be reconnected to the operating voltage for at least 30 seconds to charge the energy storage unit sufficiently.

A locked door is signaled by a short circuit at the two contact terminals. When the door is open, these terminals are not connected.

The following figure shows the signal curves.

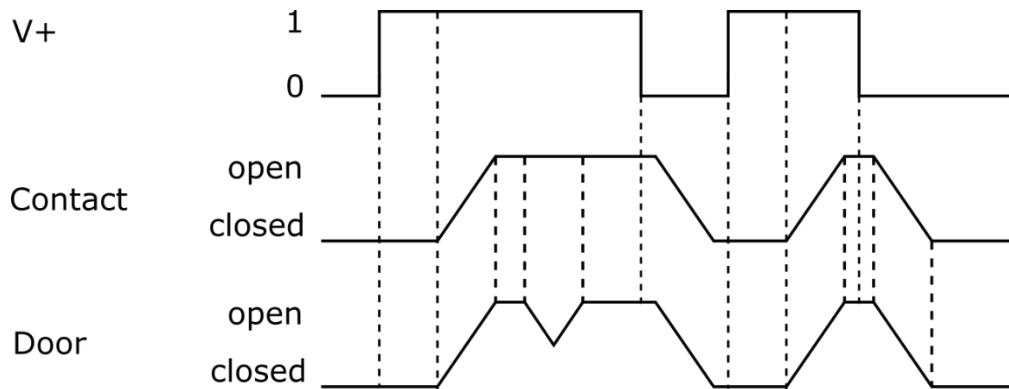


#### 7.4 3000-U330-05 Version „Energy store delayed re-lock“

The "Energy store delayed re-lock" version must be permanently connected to the operating voltage via the V (+) and V (-) terminals in order to lock the door. Unlocking is done by switching off the operating voltage. After switching off the operating voltage, the door cannot be locked. After applying the operating voltage again, the door locks as soon as it is closed again. Before reopening, the lock must be connected to the operating voltage for at least 30 seconds to charge the energy storage unit sufficiently.

A locked door is signaled by a short circuit at the two contact terminals. When the door is open, these terminals are not connected.

The following figure shows the signal curves.

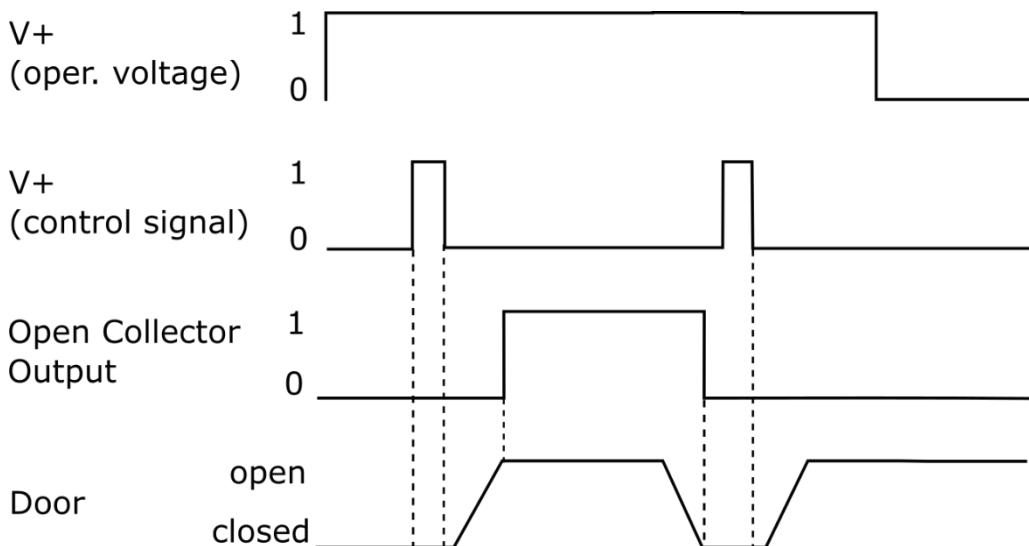


#### 7.5 3000-U330-04 Version „Battery backup“

The "Battery backup" version must be permanently connected to the operating voltage via the V (+) and V (-) terminals. Unlocking is done by a release signal (pulse) at the control input. The door locks again as soon as it is closed again.

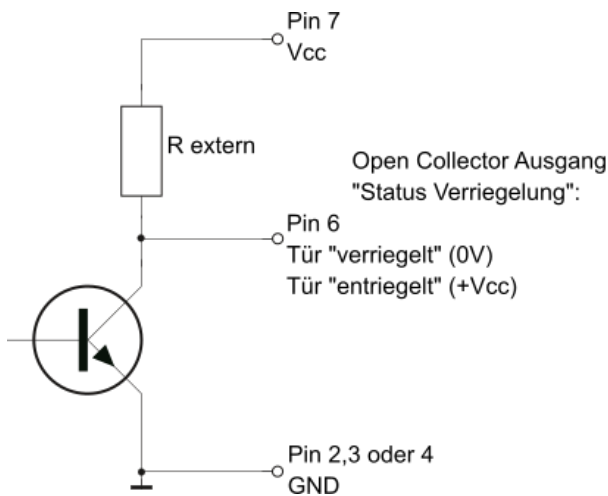
When the door is locked, the operating voltage is applied to the Open Collector output. When the door is open, the signal changes to 0 V.

The following figure shows the signal curves.



## Open Collector Output

To evaluate the Open Collector output, a resistor  $R_{\text{extern}}$  must be connected externally according to the following circuit diagram



## 8 Eliminate malfunctions

Feature	Cause	Measure
Does signal the unlocking status when closed.	Cable broken	Replace a defective cable with a flawless one
No function	Device does not connected	Apply the operating voltage for at least 5 seconds to unlock or switch off voltage, depending on version
	Device was mounted with too high torque.	Make sure the mounting screws are tightened to the correct torque
Device cannot be locked	The mechanical emergency release is actuated.	Release the emergency release lever
	Operating voltages were not applied long enough	Apply the operating voltage for at least 5 seconds to unlock
Device cannot be unlocked	Operating voltage not connected	Apply the operating voltage for at least 5 seconds to unlock
	Preload too high	Make sure that the preload does not exceed the specified maximum value (dynamic load)
	Cable break	Replace the defective connection cable with a good one

## 9 Maintaining the device

- Perform a manual functional check every 12 months.

## 10 Disposing of the device



Dispose of the device via an approved disposal company. Observe and follow the applicable regulations. If in doubt, contact your municipality or city administration.

# 11 Specifications

## Dimensions and weight

Dimensions approx. (W x H x D)	80 x 57 x 24 mm
Weight device	156 g
Weight of locking bolt	12 g
Weight catch in zinc die	44 g
Weight catch stainless steel	56 g

## Electrical characteristics

Supply Voltage VCC	9 - 32 VDC (SELV)
Max. current consumption	450 mA
Contact load capacity	max. 30 VDC min. 1 mA, max. 100 mA
Open collector output (Battery backup only)	max. 40 V DC, max. 200 mA
Class	IP2x

## Mechanical and climatic characteristics

Static holding force	1500 N
Dynamic holding force	100 N
Ambient temperature range	-20...+60°C
Humidity range	15... 85 % relative humidity, non-condensing