



**MySafe**  
Make your safe smart.



# Technical & User manual

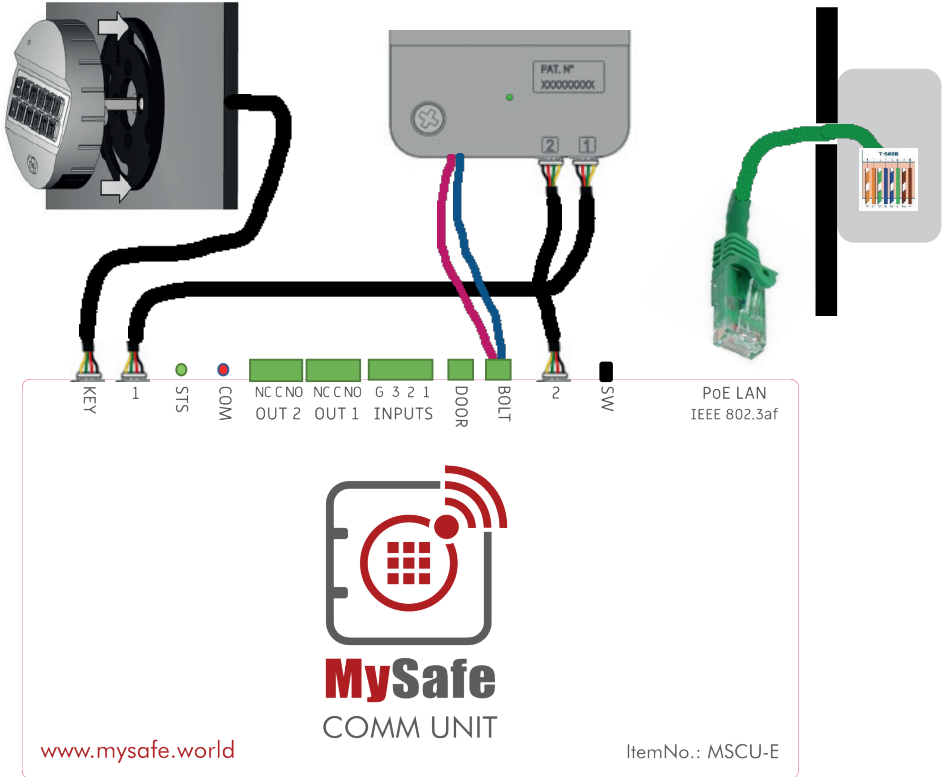
# ABOUT MySafe COMM UNIT

The MySafe COMM UNIT is connected between the safe lock and the entry unit and can eavesdrop on the communication between the two. It sends status information to a central server from where the information can be received using the MySafe app.



Depending on the settings, the device can block the opening of the safe and switch its outputs based on selectable lock events. The COMM UNIT is installed inside the security container and communicates with the outside world via Ethernet using an encrypted MQTTS connection. A single cable is sufficient for connection, as the device is powered via an Ethernet cable according to the PoE standard.

# COMM UNIT > Connections



## Meaning of the two small LED:

- **STS:** The Status LED lights up after the device has been properly initialized.
- **COM:** The Communication LED stays lit up after establishing secure connection to the web server.
- It blinks if switch SW was pressed and configuration page is available (see section configuration, page 8).

# COMM UNIT > Connections

## Connectors 1 & 2

- Use provided connection cables (90 cm) with white pico-Spox connectors for connection to the safe lock (Lock connector 1 to COMM UNIT connector 1, 2 to 2).

## Bolt

- Connect the two wires from the lock into the green push terminal (polarity irrelevant).

## KEY connector

- Use connection cable (90 cm) with white Pico-Spox connector from the entry unit.

## DOOR connector

- Used to connect a door sensor (polarity irrelevant). The logic (NO or NC) of the sensor can be reversed by an internal jumper (K13).

## Inputs connector

- Three universal switch inputs. The switch connects between contact G (ground, common) and contact 1, 2, or 3 (see also section setting, page 8).

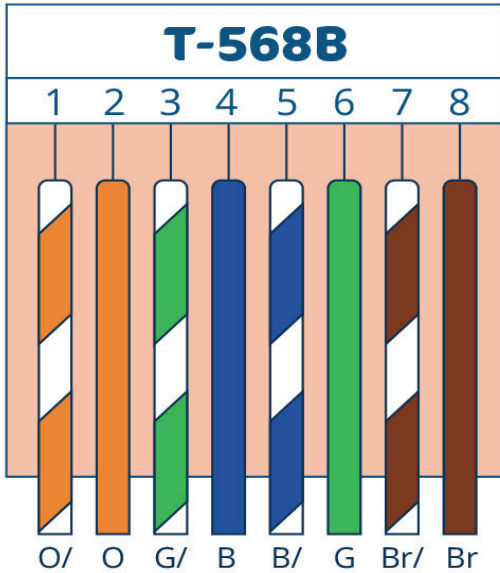
## OUT1 and OUT2 connectors

- Universal relay outputs with changeover contact. The autonomous functions of the outputs are set via the web interface (see section settings, page 8).

# COMM UNIT > Connections

## Ethernet and power

- Connect the COMM UNIT to the LAN-switch with a regular patch cable for computer networks.
- For a switch that cannot power the device via PoE according to the IEEE 802.3af standard, use a proper PoE-Injector (sold separately).
- The connection of the LAN cable between the RJ45 connector on the outside of the safe and the connector inside is governed by TIA-568B (see ANSI/TIA 568 Wiki).



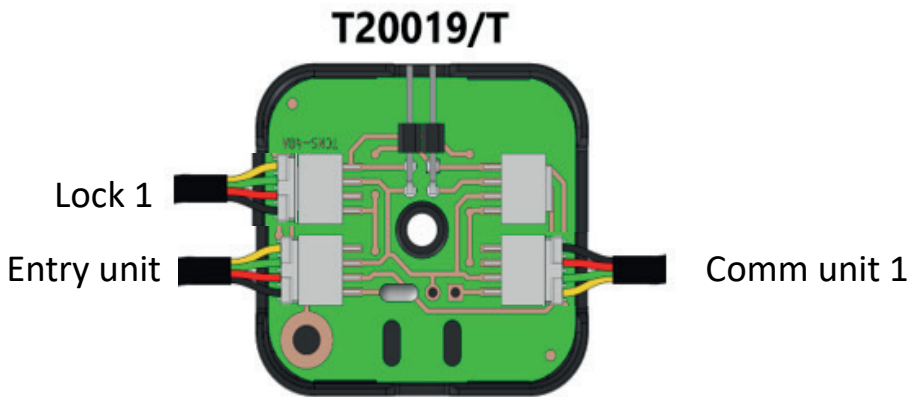
## Two lights in the Ethernet connector

- **Yellow** – LINK:  
Lights up when the device is connected to a switch or PC by cable.
- **Green** – ACT:  
Indicates communication with the network switch.

## COMM UNIT > Dimensions and Installation

**Install lock and entry unit** according to their installation instructions to maintain the lock certifications (EN1300 class 2 and UL Type 1).

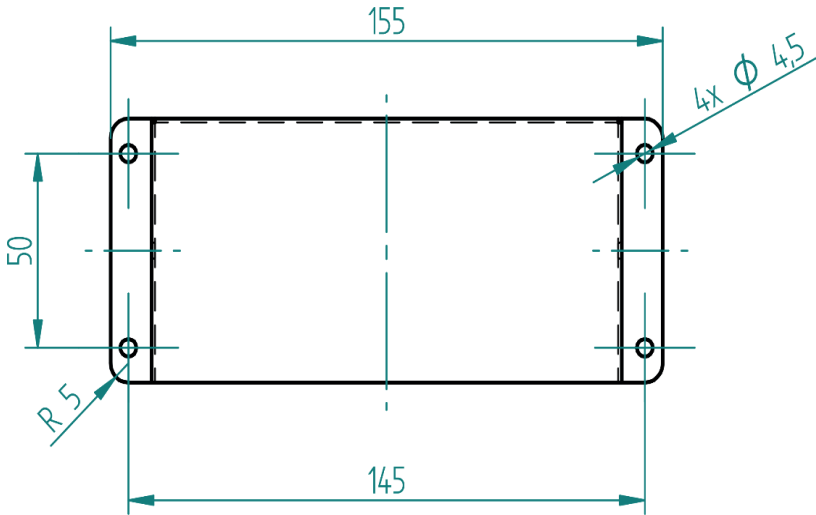
- The only difference is that lock and entry unit are connected via the COMM UNIT (see page 3).
- Alternatively, it is also possible to use a splitter to connect entry unit and lock with the COMM UNIT.



**The lock will be powered through the connection to the COMM UNIT.**

- Use the battery compartment in the entry unit only in case of power loss or to check the unit during installation.
- In case it is not wished that the COMM UNIT powers the lock it is possible to suppress this by removing jumper J2 inside the device. It connects 9V power for the entry unit and lock. The jumper is factory-connected.

# COMM UNIT > Dimensions and Installation



**Install the COMM UNIT** with 4 screws inside the security container.

- Install preferably with the connector side up (this puts the temperature sensor in the bottom and prevents the green connectors from falling out, should they ever come loose).

## COMM UNIT > SETTINGS/BASIC CONFIGURATION

While the lock is open, it is possible to access the configuration page of the COMM UNIT via a web browser. The PC or Laptop needs to be **in the same Network**.

In order to access the page, type the **current IP-Address** of the device in the browsers address line.

TIP: The IP-Address of the device (if already registered in the MySafe app) is shown in the status page of the MySafe app.



The factory default password is 123456

Password

Login

After login, settings for the network, password and time synchronization are available.



# COMM UNIT > SETTINGS/BASIC CONFIGURATION



Network

Security

Other

## Comm Unit Settings

**Save** Default Refresh Logout

Type:	MySafe Comm Unit ETH	Unit date and time:	31.3.2023 07:27:23 UTC
Firmware version:	1.4/8	Technical support:	mysafe.world
Serial number:	1571/0002		
MAC:	00-11-22-33-AA-FF		
Core version:	MySafeCompact; v1571.01.01;		
Browser:	Firefox 114		

Unit name

Language

### Network

DHCP

Device's IP address

Netmask

Gateway IP address

DNS server's IP address

WEB port

### Security

Current password

New password

Confirm password

### Other settings

Synchronize device's time with this PC's time

**Update Firmware**

### Temperature monitoring

Upper limit

Lower limit

### Other settings

Synchronize device's time with this PC's time

**Update Firmware**

Any changes to the settings become only valid after saving (and rebooting unit).

- **Attention:** Changing the IP address may make the unit inaccessible (also for the MySafe app) until a reset is performed by a service technician.



- Network
- Security
- MQTT
- Outputs
- Temperature
- Other

### Comm Unit Settings

Type:	MySafe Comm Unit ETH	Unit date and time:	31.3.2023 06:58:48 UTC
Firmware version:	1.4/8	Technical support:	mysafe.world
Serial number:	1571/0002		
MAC:	00-11-22-33-AA-FF		
Core version:	MySafeCompact; v1571.01.01;		
Browser:	Firefox 114		

Unit name:

Language:

#### Network

DHCP:

Device's IP address:

Netmask:

Gateway IP address:

DNS server's IP address:

WEB port:

#### Security

Current password:

New password:

Confirm password:

#### MQTT

Broker:

Certificate:

QoS:

Publish to topic:

Subscribe to topic:

Login name:

Login password:

Confirm password:

#### Outputs - autonomous function

**OUT 1**

Event to switch on:

Switch on duration [ms]:

Event to switch off:

Switch off duration [ms]:

**OUT 2**

Event to switch on:

Switch on duration [ms]:

Event to switch off:

Switch off duration [ms]:

#### Temperature monitoring

Upper limit:

Lower limit:

#### Other settings

Synchronize device's time with this PC's time:

# COMM UNIT > SETTINGS/FULL CONFIGURATION

Trained safe technicians can access the **full configuration page** as follows:

1. Open the lock
2. Press and hold the SW button on the device
3. Between about 3 and 8 seconds, the COM light flashes
4. While the indicator light is flashing, release the SW button
5. Complete settings are accessible after login

**TIP:** The IP-Address of the device is shown in the status page of the MySafe app.

## Configuring the outputs (e.g. alarm)

The COMM UNIT provides two output contacts. Each can be connected either to close or open an independent electric circuit. Examples could be sending an alarm or activating a separate device.

Innovative is the flexibility in how these outputs can be configured.



**TIP:** In the configuration page “switch on” means that the relay is activated thus switching the NC contact to open and the NO contact to close.

**Event to switch on:**

- The relay is triggered by any event of the lock that can be selected from the drop-down list.

**Switch on duration [ms]:**

- The time in milliseconds how long the relay is to stay on (1000 ms = 1 second).
- 0 = indefinitely ON
- Event to switch off:  
The relay goes back to normal if the selected event happens (this is optional).

**Switch off duration [ms]:**

- The time in milliseconds how long the relay is to stay off (1000 ms = 1 second).
- 0 = indefinitely OFF

## COMM UNIT > SETTINGS/FULL CONFIGURATION

### Temperature monitoring

The COMM UNIT measures temperature and humidity continuously and sends this information to the web server every two minutes. It is shown in the safe status section of the MySafe app.

Additionally, events are triggered if the temperature rises above or drops below of values that are defined in the configuration page. The events are shown in the audit and can raise a message in the app.

**Upper limit:** (Default set to 70 degr Celsius)

**Lower limit:** (Default set to 35 degr Celsius)

## COMM UNIT > RESET (FACTORY SETTINGS)

1. Disconnect the LAN cable from the COMM UNIT
2. Press and hold the SW button
3. While the SW button is pressed, connect the LAN cable to the COMM UNIT
4. Within five seconds the LED starts to flash
5. Release the SW button while LED flashes
6. Your COMM UNIT will be reset (IP address: 192.168.1.254)

### *For security reasons*

The complete configuration is only available to a trained service technician as it requires direct contact with the COMM UNIT itself. (The configuration page is accessed via an unencrypted http connection and therefore could be intercepted from a foreign device that is on the same network as the Comm Unit.)

# SAFE LOCK > SETUP FOR MYSAFE COMPATIBILITY



## Pulse PRO

High Security Lock – VdS Class 2 – EN1300 Class B

The lock is in pre-setup when delivered.  
It opens when **1** is pressed.

# How to setup the lock

Please perform the following actions to setup Pulse PRO for Mysafe:

- **Configure Pulse PRO**
  - Press and hold **8** to enter Pulse PRO configuration menu (detailed: Pulse PRO manual, page 17)
  - Now select a configuration number from the Pulse PRO configuration table (Pulse PRO manual, from page 19)
- **Activate „Hold up alarm“:**
  - Enter the Pulse PRO system settings (press an hold **6**)
  - Check settings no. **01** in the setting table and change the values to **0** (Pulse PRO manual, from page 15/16)
- **Check „Remote override“:**
  - Enter the Pulse PRO system settings (press an hold **6**)
  - Check settings no. **00** in the setting table and change the value to **1** (Pulse PRO manual, from page 15/16)
  - Repeat the operation: But instead of **1** change value back to **0**



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# Adding the safe to the App

The following steps are required to make the status of the safe visible in the MySafe app.

Download  
MySafe app  
for **Android**



If you don't  
have the app,  
download it now  
and create your  
account!

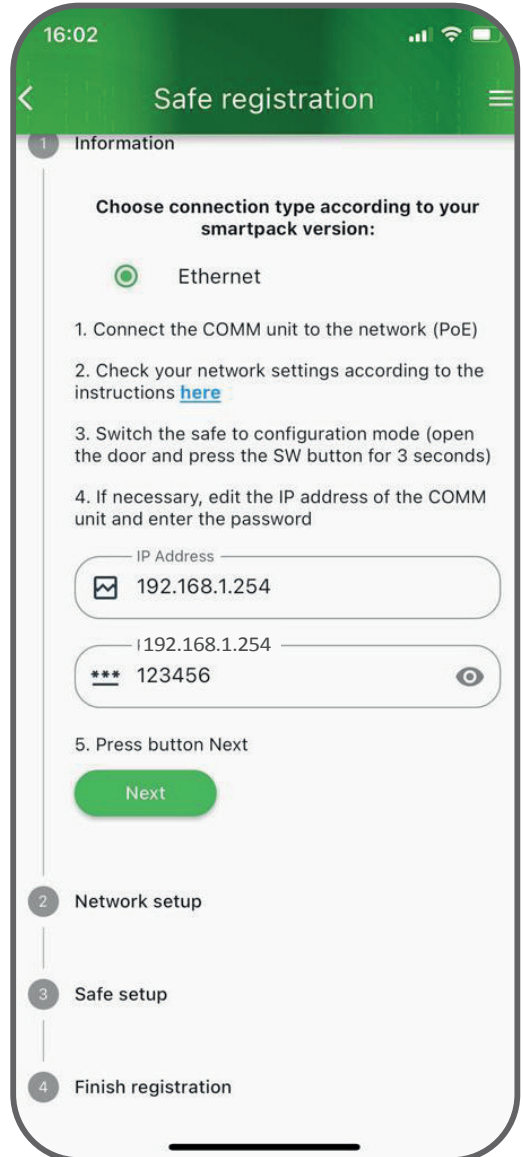
Download  
MySafe app  
for **iOS**



# MySafe app

## Add new safe

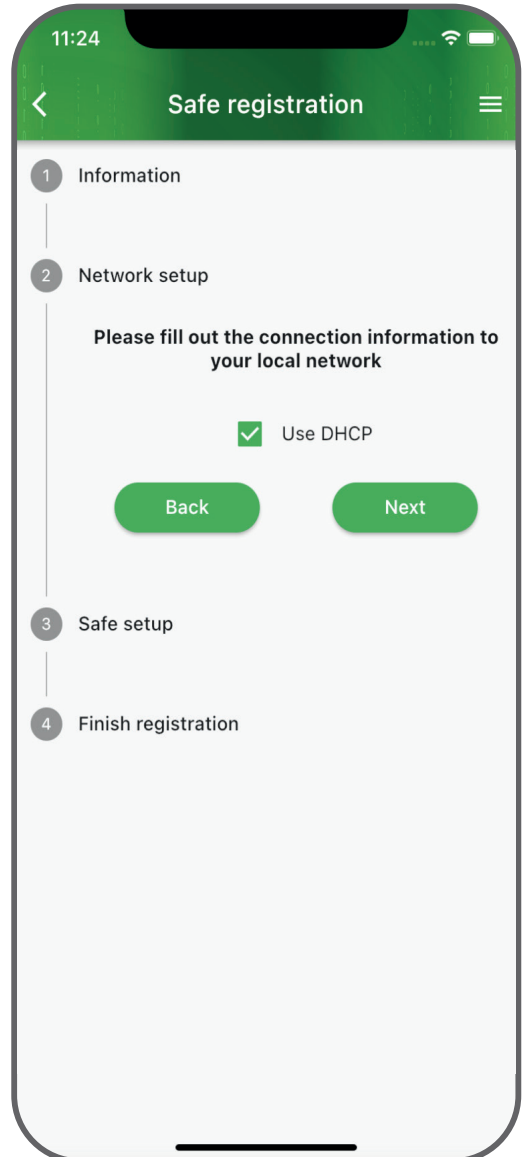
- Connect your phone to Access Point/Router with IP address range set from 192.168.1.20 to .250
- Press button Add Safe in the application
- Select Ethernet



# MySafe app

## Add new safe

- COMM UNIT at factory default configuration is accessible at IP 192.168.1.254
- Should you wish to pair the COMM UNIT with custom settings, you require the IP address of the COMM UNIT (can be scanned using some 3rd party IP scanner tool)
- Press Next
- Set required network settings (safe IP address or DHCP)
- Press Next
- Safe HW-Id should appear (it matches the MAC address of COMM UNIT)
- Press Save (this step will save the safe configuration to the COMM UNIT)
- Name your safe and press finish (this step will save the safe to the MySafe database)
- Now you have your safe added into your app (you are automatically set as admin for the newly added safe)





# MySafe app

## Potential problems:

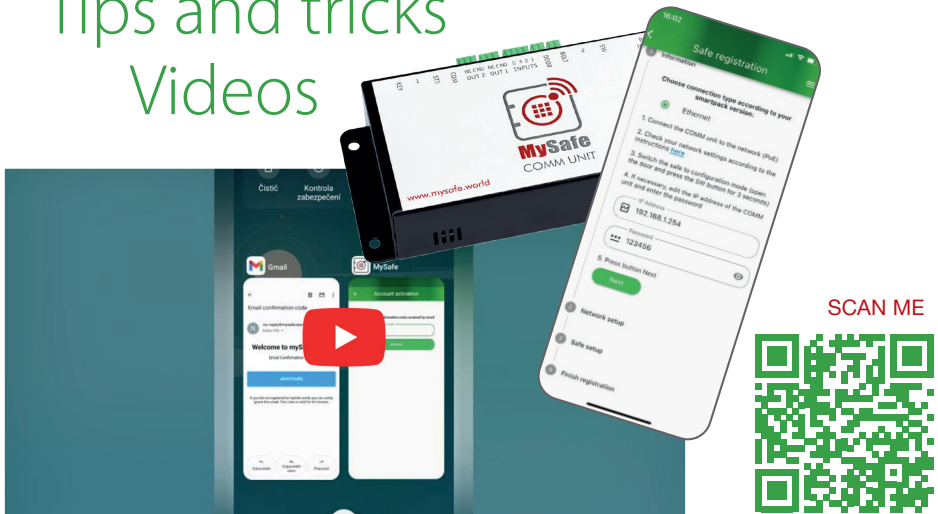
- Should the safe HW-Id not appear – check network setup (IP address of the safe and your smartphone at the step 1)
- Error during finish step:
  - Reason 1: Another safe with same HW-Id is already registered
  - Reason 2: Network problem (your smartphone has some problem to access the internet)

## Recommended:

If you add a safe to the MySafe app, we always recommend activating DHCP (see screenshot on page 16).

# MySafe

## Tips and tricks Videos





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# Technical parameters

# Technical parameters

## Relay outputs

### Relay switching contact type

Maximum switching voltage	AC: 60 V, DC 85 V
Maximum switching current	5 A
Protective varistor	UAC = 60 V; EMAX = 5 J; C = 0.64 nF

### Lock control output (BOLT)

Load capacity	max. 9 V / 100 mA
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## Relay inputs

### Contact connection type

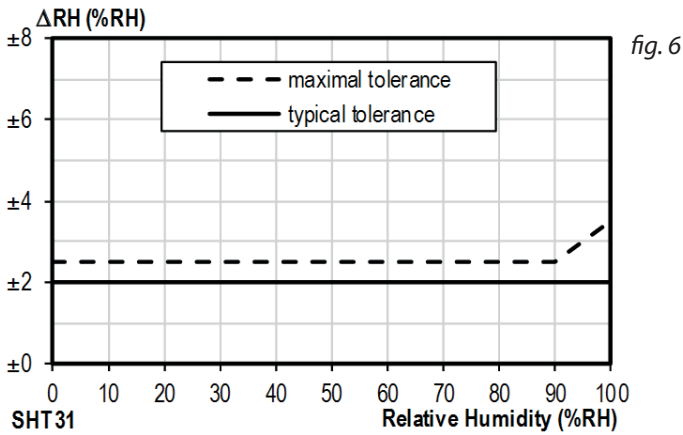
Current through closed contact	typ. 2.3 mA
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### Temperature and humidity measurement

Measured humidity range	0% to 100% RH (non-condensing)
Recommended measurement range	20 - 80%
Resolution	1% RH

# Technical parameters

For humidity measurement accuracy see fig. 6  
 Measuring element polymer sensor  
 Mechanical design of the sensor under the plastic mesh from above on the device



Range of measured temperatures -40.0 °C to +125 °C  
 Resolution 0.1 °C  
 Measuring element semiconductor sensor

# Technical parameters

## Ehernet

Ethernet	TBase 10/100 Ethernet
PoE power supply	according to IEEE 802.3af
Communication method with server	MQTTS (TLS 1.2)
Maximum length of SSL certificate communication format	4 KB JSON

### Default Ethernet settings

IP address	192.168.1.254
Netmask	255.255.255.0 (8 bits; C mask)
IP address of the gateway (Gateway)	0.0.0.0

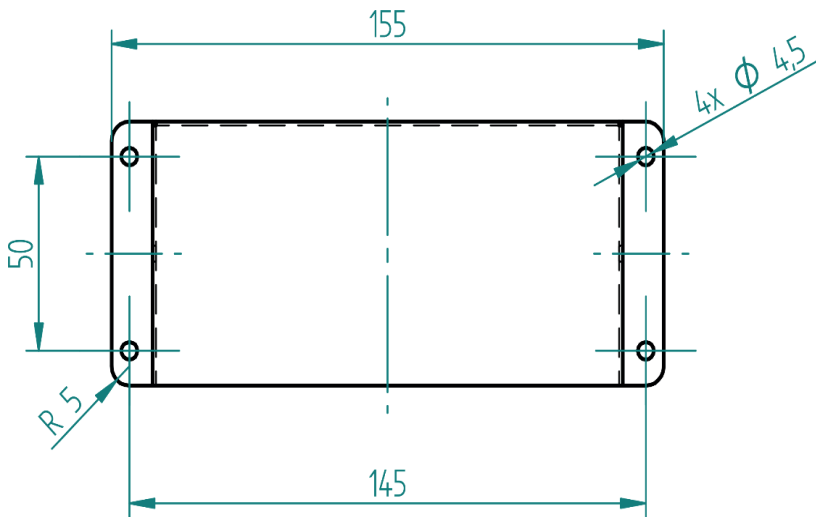
### Types of connectors

Ethernet	RJ45
1, 2 and BAT	Molex 87438-0443
BOLT, DOOR	15EDGRC-2.5-02P-14-00A
OUT1, OUT2	15EDGRC-2.5-03P-14-00A
INPUTS	15EDGRC-2.5-04P-14-00A

# Technical parameters

## Other

Device tamper detection	yes, shock and tilt detecting accelerometer
Consumption	typ. 1.2 W (at rest, without lock attached)
Degree of protection	IP 20
Working temperature range	-20 to +60 °C
Maximum working humidity	90% RH, non-condensing
Dimensions	145 x 68 x 28 mm



# Technical parameters

## Troubleshoot/Reset

If IP address was changed to a static IP (DHCP unchecked) and the configuration page is not accessible, the following procedure can restore activation of DHCP:

- 1) Keep the SW button on the device pressed for 15 seconds until the red COM LED starts blinking for the second time.
- 2) Release the button. The device will receive (and store) a new IP-Address from the DHCP server. Other settings remain unchanged.

To reset the device to default settings use the following procedure:

- 1) Unplug the power connection (PoE).
- 2) Keep the SW button pressed while you re-connect power.
- 3) Keep the SW button pressed until the red COM LED starts blinking.
- 4) The blinking indicates the unit is set to default.

## COM LED states

Power	SW button	COM LED
ON	not pressed	Continuously ON when secure connection to WebServer is established.
Connect	pressed	Blinks to indicate reset.
ON	pressed and hold 3 seconds	Blinks for 5 seconds. If button released during this time (and lock open) full configuration page is available.
ON	pressed and hold 15 seconds	Blinks for 5 seconds. If button released during this time DHCP is activated.
ON	pressed and hold 60 seconds	Blinks for 5 seconds. If button released during this time device allows firmware update (procedure for firmware update is not part of this instruction).



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