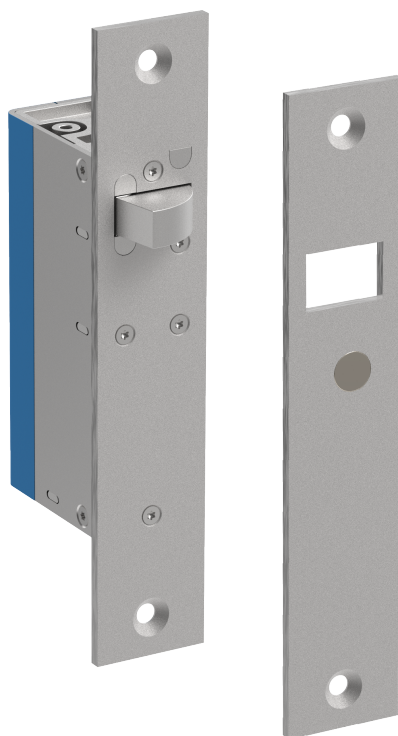


Electrified security lock SL30SGL

Operating Manual



WN 060429 45532/18729 - 09/2026

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1 Information about this document

1.1 Contents and purpose

This manual describes the mounting, connection, operation and maintenance of the lock SL30SGL.

This manual must be carefully read through and understood before commencing all work. Complying with all safety instructions and action steps provided in this manual is the basic prerequisite for safe working. The local accident prevention regulations and general safety conditions for the product's scope of application also apply.



The figures serve to provide a general understanding and may differ from the product model that is actually delivered.

1.2 Target groups

The target group for this manual are:

- Assembling technicians
- Service technicians

Assembling technicians and service technicians are skilled personnel who have the specialist knowledge required for mounting, commissioning and maintenance.

1.3 Documents storage

This document and the applicable documents must be handed over to the facility operator. The documents must be kept during the service life of the product and made accessible to staff.

2 Safety

2.1 Intended use

- Motor-operated low-voltage electric lock for commercial or private doors.
- Flush-mounting in mortise opening or surface mounting (with accessories).
- Suitable for wooden, aluminum or steel doors/frames.
- Mounting indoors or in protected outdoor areas.

2.2 Non-intended use

- Use in escape and emergency routes according to EN 13637 and EltVTR.
- Use with accessories other than those specified.
- Installation in areas with humid or aggressive atmosphere (e.g. saunas, swimming pools).
- Installation positions other than specified.

2.3 Responsibility of the operator

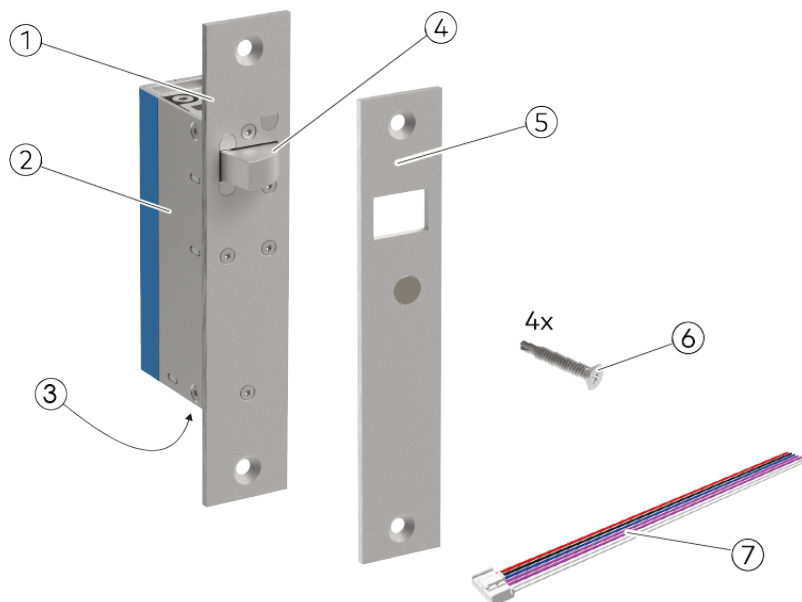
The facility operator is responsible for the proper condition of the installed components and their maintenance by qualified personnel.

The following is the facility operator's responsibility:

- This lock must be mounted, connected and commissioned in accordance with this manual.
- The suitability of this lock must be determined for the intended application.
- This lock must be regularly checked, kept clean and maintained.
- This lock must be replaced at the end of its useful life.
- This lock must not be modified.
- This lock must not be used in any other way than described in the chapter Intended use [▶ 2.1](#).

3 Product description

3.1 View



- | | |
|---|---|
| 1 | Forend |
| 2 | Housing |
| 3 | Connection |
| 4 | Closing latch |
| 5 | Strike plate |
| 6 | Mounting screws, self-tapping, 10G x 1" csk |
| 7 | Connection cable |

3.2 Accessories (to be ordered separately)

- | | |
|-----------------------------|------------|
| • Cover plate SLA216J | 2400001233 |
| • Housing SLA214J | 2400001232 |
| • Long strike plate SLA213H | 2400001231 |

3.3 Technical data

Materials		
Bolt	Stainless steel SS17-4PH Thickness 10 mm Extension, 14 mm	
Lock, strike plate	Stainless steel SS304 Thickness 3 mm	
Mechanical		
Gap	max. 6 mm	
Door displacement	max. 8 mm	
Power supply		
Supply voltage	DC 12-24 V ±15% SELV	(UL/IEC/EN 62368)
Protection class	III	(HD 60384-4-41)
Standby power consumption	40 mA (12 V)	25 mA (24 V)
Power consumption during operation	750 mA (12 V)	400 mA (24 V)
Electrical connection		
Connection terminals	Connector	
Conductor cross-section	0.20 ... 2.0 mm²/AWG24 ... AWG14	
Signal contacts		
Latch position	max. 30 V DC	max. 100 mA
Door position	max. 100 V DC	max. 500 mA

3.4 Classification

EN 1634-1:2015 + A1:2018 Suitable as an additional lock for wooden doors
BS 476-22:1987 designed to resist fire for 30 or 60 minutes.

EN 14846:2008	3	Y	9	0*	/	G	3	1	1
---------------	---	---	---	----	---	---	---	---	---

* Class 0 for suitability for use on Class 4 fire/smoke protection doors only applies to the product if it is used as a primary lock for a fire/smoke protection door. The product is suitable for use on a fire/smoke protection door if it is installed as an auxiliary locking device next to a main locking device with appropriate test certificate.

Explanation:

3 = Service category

Y = 200,000 test cycles, load on latch 250 N

9 = Door mass > 200 kg

0 = For fire/smoke protection doors

/ = No safety requirements

G = Moderate corrosion protection, temperature -10°C to +55°C,

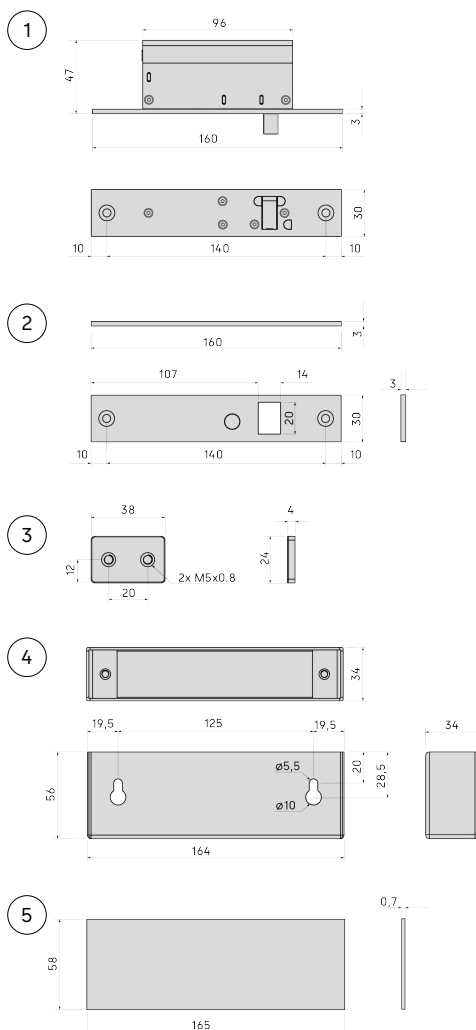
Humidity level 1

2 = Protection effect

1 = Security requirement – electrical function

1 = Security – electrical manipulation

3.5 Dimensions



- | | | | |
|---|---|---|--------------------------------------|
| 1 | Lock dimensions | 4 | Housing dimensions (accessories) |
| 2 | Strike plate dimensions | 5 | Cover plate dimensions (accessories) |
| 3 | Mounting bracket dimensions (accessories) | | |

4 Operating modes and functions

4.1 Overview of functions

The SL30SGL is a motorized mortise lock for swing doors.

Reliable closing

The locking bolt of the SL30SGL is designed as a cam, which is rotated to the extended position by a motor during locking. This design allows the lock to pull the door into the closed position even if it is not completely closed (e.g. if the sealing material is thick).

Reliable unlocking under preload

The SL30SGL unlocks immediately after it has received the signal to unlock - even if the door is laterally loaded at this time (preload). In fail-safe operation, this is guaranteed even in the event of a power failure.

Further features

- Multi-voltage input (DC 12 V/24 V)
- Optimized energy consumption (standby)
- Monitoring of door position and bolt position
- High mechanical strength
- Flush or surface mounting

4.2 Operating modes

The lock can be used in both fail-safe and fail-secure operation. All that is required is to switch over a jumper during commissioning.

Fail-safe operation (currentless opening)

If the power supply fails, the lock opens in fail-safe operation. This prevents people who are inside the secured area from becoming trapped in the event of an emergency.

In fail-safe operation, the lock locks as soon as voltage is applied to the control input and the door is closed. When the voltage at the control input is switched off, the lock unlocks.

Fail-secure operation (closing without power supply)

If the power supply fails, the lock locks as soon as the door is closed. The secured area thus remains secured even in the event of a power failure. This prevents unauthorized persons from gaining access by manipulating the power supply.

In fail-secure operation, the lock operates according to the closed-circuit principle. The lock remains unlocked as long as voltage is present at the control input. The lock locks as soon as the voltage at the control input is switched off and the door is closed.

5 Mounting

5.1 Requirements for mounting

The following aspects must be clarified before installation and connection:

- Operating mode
- Type of installation
- Installation position
- Cable routing and wire cross-section

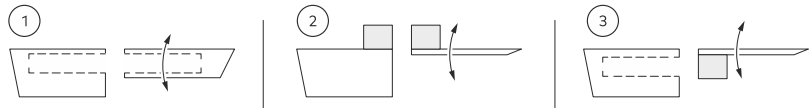
Which operating mode?

The operating mode is selected to suit the intended use:

- For areas where people are regularly present and where no other escape and emergency route is available, the lock is set to **Fail-safe (opening without power)**.
- For areas that are to be locked in the event of a power failure, the lock is set to **Fail-secure (closing without power)**.

Type of installation

Optionally, the lock can be mounted on the door frame or on the door; the strike plate is installed in the door or the door frame accordingly. Mounting the lock in the door frame is easier, as the cables only have to be routed through the frame. It requires more effort to lead the cables inside the door leaf to the lock.



- 1 Insertion opening in frame and door
- 2 Surface mounting on frame and door
- 3 Mortise opening in frame and surface mounting on door

A mortise opening in the door and door frame offers a discreet solution in which the lock and strike plate remain invisible. If this is not possible, e.g. with glass doors, both can be mounted on the surface using a housing (accessory). To install the striking plate in the housing, the long striking plate (accessory) is also required.

In principle, any combination of mortise opening and surface mounting can be realized, provided that the lock and strike plate are aligned with each other after mounting. When the door is closed, the gap between the lock and striking plate must not exceed 6 mm. If the gap is greater, the lock can no longer correctly detect the position of the striking plate and will no longer function reliably.

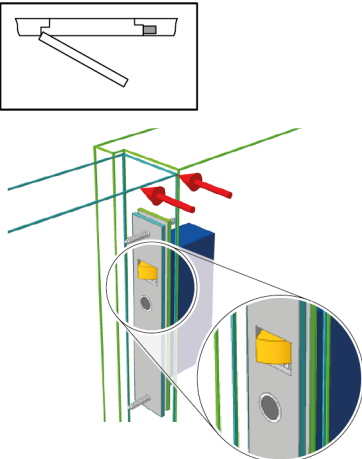
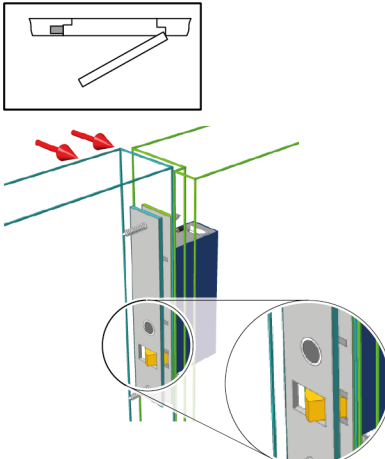
Installation position

The lock can be mounted horizontally or vertically.



When installed in the floor, penetrating moisture or similar can contaminate the mechanics of the lock and render the lock unusable in the long term.

For vertical mounting of the SL30SGL it is necessary to pay attention to the type of stop:

Left stop, DIN-Left	Right stop, DIN-Right
	
1. If the door is mounted on the left, mount the lock with the locking bolt pointing upwards.	1. If the door is hinged to the right, mount the lock with the locking bolt pointing downwards.

Cable routing and conductor cross-section

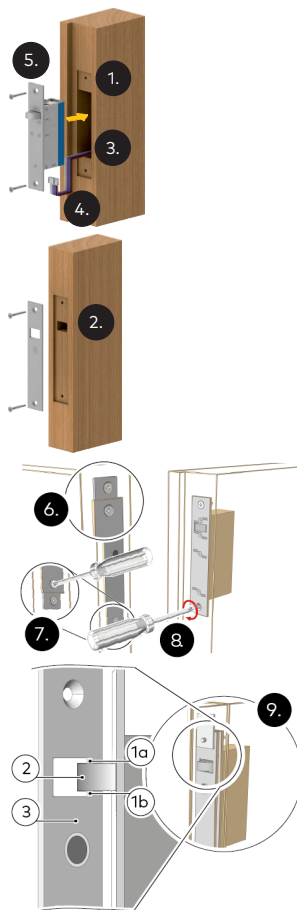
The routing and thus the length of the connecting cable must be determined. Three connecting wires are required for the lock to function.

When selecting the connection line for the supply voltage, the voltage drop on the line must be taken into account. Depending on the length of the connection line, the conductor cross-section must be selected accordingly.

Conductor cross-section as a function of the cable length

Conductor cross-section		Maximum cable length	
(mm ²)	AWG	at DC 12 V	at DC 24 V
0.20	24	10 m	30 m
0.33	22	16 m	48 m
0.52	20	26 m	77 m
0.82	18	41 m	122 m
1.31	16	65 m	195 m
2.08	14	103 m	310 m

5.2 Example 1: Installing lock and strike plate in mortise openings

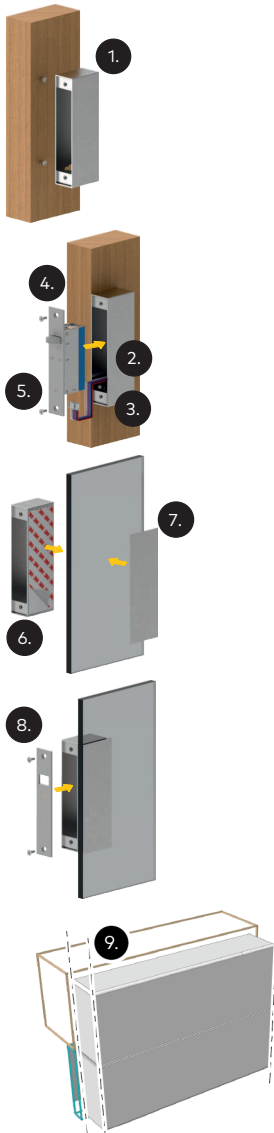


The installation example describes the installation

- of the lock into an insertion opening in the frame,
- of the strike plate into an insertion opening in the door.

1. Cut an insertion opening for the lock in the door frame.
2. Cut an insertion opening for the strike plate in the door leaf.
3. Drill a hole in the back of the insertion opening for the lock and lead the connecting cable into it.
4. Insert the plug of the cable harness into the lock.
Note: Use the jumper to set the lock to fail-safe or fail-secure; see the Configure lock [▶ 6.5](#) chapter.
5. Push the lock into the door frame. Do not squeeze the connecting cable.
6. Install the strike plate into the door panel and secure with 2 10Gx1" screws.
7. For hollow chamber doors, insert the supplied mounting tabs behind the cutout and place the strike plate on the mounting tabs.
8. Fasten the lock with 2 10Gx1" screws.
9. Check the alignment of the lock and strike plate to each other:
 - The striker pins (2) touch the front and rear edges of the strike plate (3) to retract the door.
 - An appropriate pull-off dimension (1a/b) must be maintained at the top and bottom edges to prevent the strikers from driving against the strike plate.

5.3 Example 2: Install lock on frame and strike plate on glass door.



The mounting example describes the mounting

- of the lock on a wooden frame,
- of the strike plate on a glass door.

Two housings, a cover plate and a long strike plate are required for mounting (accessories). The housings are available with double-sided tape and have mounting points for screw holes on wood and metal doors.

1. Attach the housing to the door frame. To do this, install 2 10G×1" self-tapping hex head screws in the appropriate locations (included with the housing). Attach the housing to the screw heads with the two keyhole cutouts and tighten the screws.
2. Drill a Ø8 mm hole in the housing wall at the position for the cable entry. To prevent the connecting cable from chafing against the drilled edge, push the supplied grommet into the drilled hole. Then guide the connecting cable into the housing.
3. Insert the plug of the cable harness into the lock.
Note: Use the jumper to set the lock to fail-safe or fail-secure; see the Configure lock [▶ 6.5](#) chapter.
4. Push the lock into the housing. Do not crush the connecting cable.
5. Fasten the lock with 2 M5×10 screws.
6. Attach the housing for the strike plate to the glass door. To do this, remove the protective strip from the adhesive tape on the side of the housing and carefully attach the housing to the glass.
Note: To correct the position, press the housing only lightly at first.
7. For a neat finish on the opposite side of the glass door, attach the cover plate (accessory) in the same manner.
8. Insert the long striking plate into the housing on the door leaf in such a way that the bolt of the lock can enter the opening of the striking plate. Fasten the strike plate with 2 M5×10 screws.
9. Check the alignment of the lock and strike plate to each other:
 - The striker pins (2) touch the front and rear edges of the strike plate (3) to retract the door.
 - An appropriate pull-off dimension (1a/b) must be maintained at the top and bottom edges to prevent the strikers from driving against the strike plate.

6 Electrical connection

6.1 Select power supply

The lock is designed for low power consumption. Only when the deadbolt is moved does a larger current flow.

1. Select the power supply according to the maximum current consumption.

Note: If several locks are connected to one power supply at the same time, the maximum current consumptions of the individual locks are added together.



WARNING

In the case of power supplies with high output power, there is a risk of fire due to high currents in the event of a short circuit.

High currents can cause severe damage due to overheating and even fire.

- In the case of power supplies with high output power, protect the connection lines to the individual locks with current limiters.

6.2 Connection

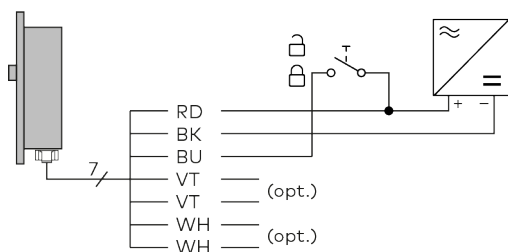
The lock is connected with a 7-pin cable harness that plugs directly into the lock. The wiring is color-coded.

Color	Meaning	Remarks
Red (RD)	Power supply	DC power supply connector, "+"
Black (BK)		DC power supply connector, "-"
Blue (BU)	Control input	Fail-safe operation: 1-active Fail-secure operation: 0-active
White (WH)	Switch contact door position (optional)	Normally open contact (NO, "normally open")
Violet (VT)	Switch contact bolt position (optional)	Normally open contact (NO, "normally open")
*: NO = "normally open", normally open contact. NC = "normally closed", break contact.		

For operation, the lock is connected to the power supply and with the control input (red, blue and black).

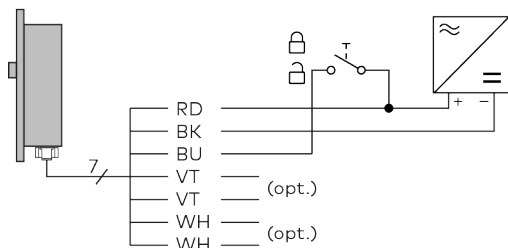
The white and violet terminals are signaling contacts that can be evaluated by an access control or alarm system.

6.3 Connection for fail-safe operation



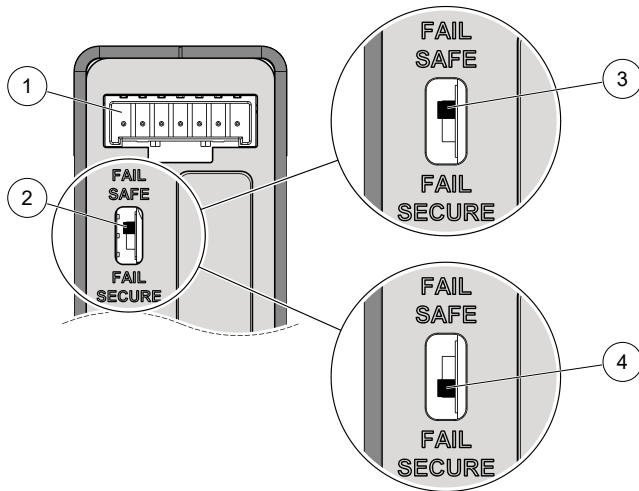
Control signal	Lock
"On"	Locked
"Off"	Unlocked
Locking signal	Active high ("active-high")

6.4 Connection for fail-secure operation



Control signal	Lock
"On"	Unlocked
"Off"	Locked
Locking signal	Active off ("active-low")

6.5 Configure lock



- 1 Terminal block
- 2 Slide switch for configuration
- 3 Slide switch for fail-safe operation (delivery state)
- 4 Slide switch for fail-secure operation

Next to the terminal block (1) there is a slide switch (2) which sets the error mode of the lock. Before mounting the lock, the error mode can be set by switching the slide switch.

1. For fail-safe operation, set the slide switch to position (3).
2. For fail-secure operation, set the slide switch to position (4).

7 Maintenance

7.1 Maintenance and Cleaning

The lock has been lubricated at the factory for its entire service life and is maintenance-free. The use of other lubricants is not permitted and will void the warranty.

This lock contains electromechanical and electronic components that are subject to wear and tear depending on use and on-site installation conditions. The manufacturer has no influence on these factors. As a result of this wear, the lock may fail at the end of its normal service life.

Interval	Activity
As needed:	Using a dry cloth, polish the forend and strike plate. Note: Look for traces of dirt and wear (dust, escaping lubricant).
Periodically, depending on frequency of use (to be determined by the facility operator):	Check for: • Tight fit • Smooth running • Noise during operation • Play of the latch • Contamination • Escaping lubricant • Moisture If there are unusual noises, noticeable play, escaping lubricant or similar, replace the lock.

7.2 End of service life

To ensure the fail-safe/fail-secure function even in the event of a power failure, the lock contains powerful capacitors to store energy.

The lock checks the function of the capacitors daily. If it detects that the capacity is no longer sufficient, it assumes the position defined for the power failure. The lock then stops operating and must be replaced.

8 Disposal

8.1 Disposal of the device



The device is marked with the adjacent symbol indicating that disposal in domestic waste is prohibited.

Old devices contain valuable recyclable materials that must be recycled. Old appliances may contain substances that are harmful to the environment and humans. Proper disposal protects the environment and people from negative consequences.

Owners of electrical/electronic equipment are legally obliged to return the equipment at the end of its service life to the manufacturer, the point of sale or to public collection points set up for this purpose.

- **Germany**
dormakaba Deutschland GmbH takes on the proper disposal of the delivered goods in accordance with the statutory regulations (ElektroG Act in Germany) after the end of their use. Any costs incurred for transport to the manufacturer's plant are to be borne by the owner of the electrical equipment.
- **Switzerland**
The device must be returned to an electrical device collection point in accordance with VREG.
- **EU**
In the EU, electrical appliances must be disposed of in accordance with country-specific waste disposal and environmental directives.

Notes

[illegible]

[illegible]



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