



## Door lock SHL-86 /-88X /-rope

**Reference:** Installation instruction SHL-86/-88X/-rope

SHL-86/ -88X/ -rope are maintenance-free narrow lift locks for single swing doors.

They all come with 1 unit of KO-30 door contact installed.

### Contents of packaging

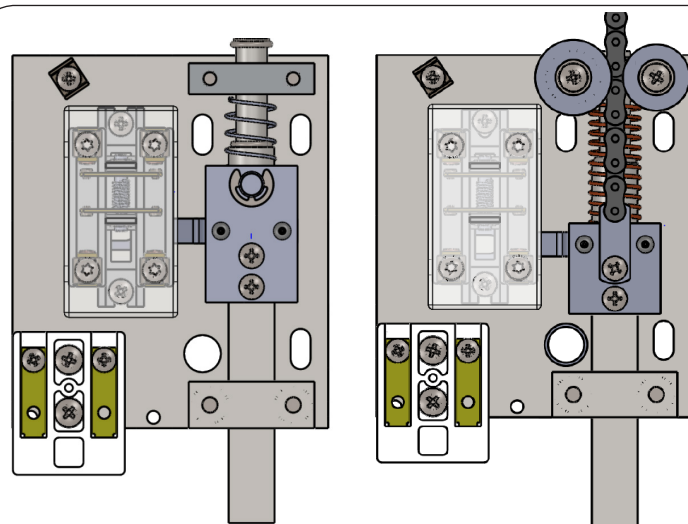
1. Door lock
2. Pull rod
3. Suitable Linkage arm (SHL-86/ SHL-88X)
4. Control wire (SHL-rope)
5. Lock roller with shaft
6. Contact bridge

### Recommended tools

Screwdriver – Torx 20

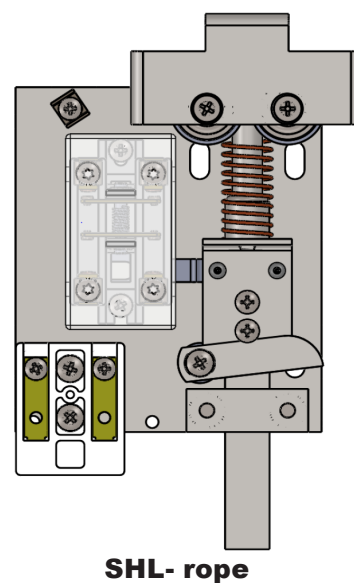
### Required material

3 screws M6x16mm with suitable washers.



**SHL-86**

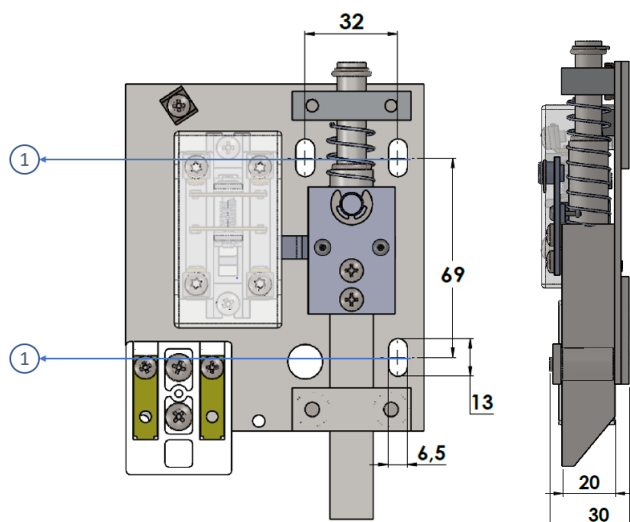
**SHL-88X**



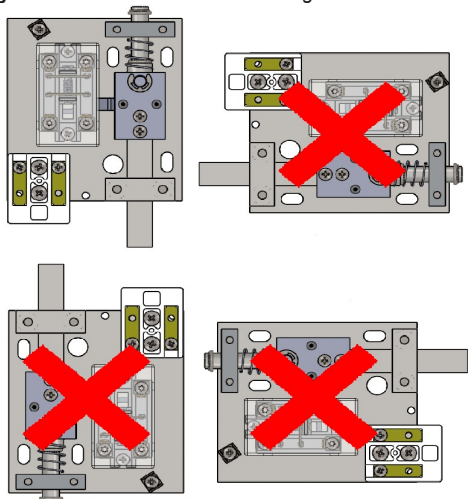
**SHL-rope**

## 1. Mounting of locks in door frame

The lock is mounted in the frame in the mounting slots ①. The holes are drilled and threaded as shown below. We recommend you to use one of our adapter plates when replacing a lock with different hole pattern.



**Figure 1** Distance between mounting holes

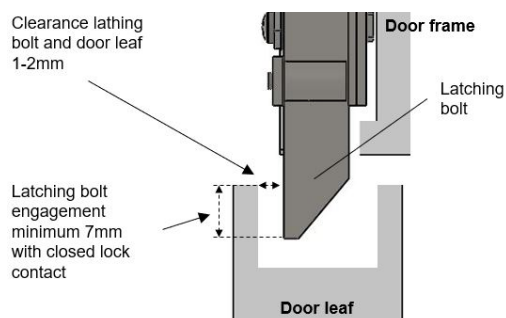


**Figure 2** Approved positions

## 2. Adjustment of lock engagement and clearance

The door lock should be adjusted so that the latching bolt engagement is 15 mm. According to standard EN81-20, the minimum permissible locking is 7 mm + movement with closed contact (approx. 2 mm). The locking engagement is adjusted by moving the lock in the holes 1 (see Figure 1).

Adjust the lock position so the clearance at the latching bolt and the door leaf in locked position. We recommend a clearance of 1-2 mm. If necessary, washer/distance bush can be placed between the lock and the door frame.



**Figure 3** Locking engagement and clearance viewed from the bottom of the lock

### 3. Emergency opening function (Supplemental)

- i. Hole of 60mm diameter is drilled in the door frame to install supplemental emergency opening function. Bevel gear, lock and triangular opening are connected with bowden cables as shown in Fig.4 (i)

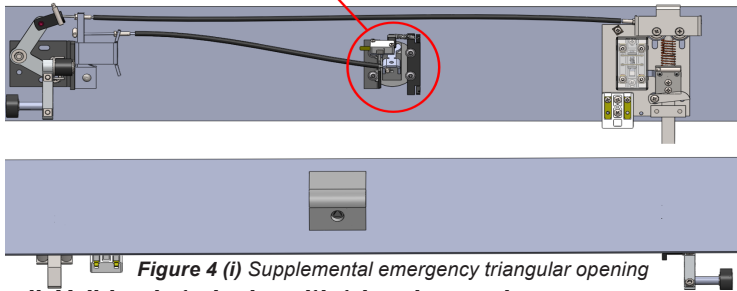


Figure 4 (i) Supplemental emergency triangular opening

#### ii. Valid only to locks with triangle opening

Holes are drilled in the door frame for the emergency opening function as shown in the figure below. The hole should be at least 14mm in diameter and the triangle should be recessed at least 3mm from the front to meet the EN81-20 standard.

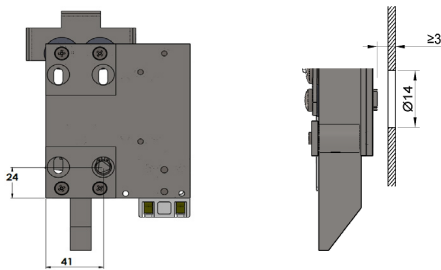


Figure 4 (ii) Emergency unlocking

### 4. Connections of the contacts

SHL locks have one door contact (KO-30) and one lock contact (KL-30). Below is the wiring diagram. Cables are attached between contact blades on locking contact and door contacts. Ground ⑦ is connected with cable lug. Rear contact ①,② is switched on if necessary.

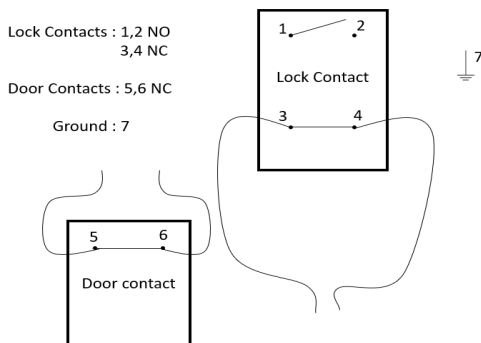


Figure 5 connection for lock

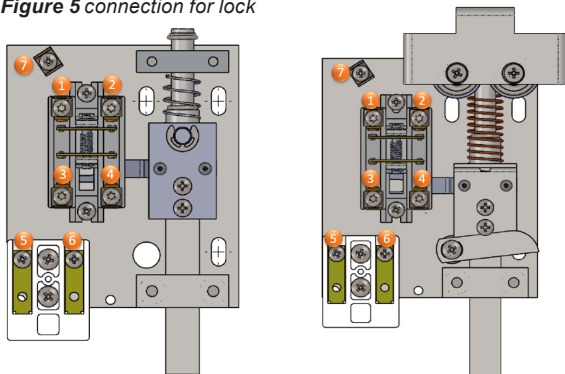


Figure 6 Pictures showing connection numbers (SHL-86 & rope)

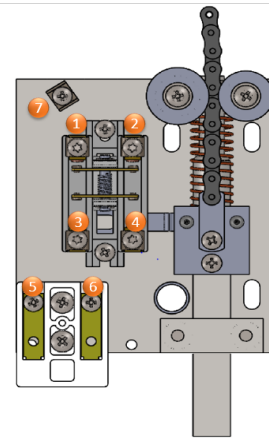


Figure 7 Picture showing connection numbers (SHL-88X)

### 6. Mounting and adjustment of the roller

The pull rod ② (995mm- can be ordered in different lengths) is mounted with lock ①. Bevel gear ③ is mounted to other end of pullrod. Locking roller shaft ④ is mounted on linkage arm and tightened. The roller should be centered over the retiring ramp ⑤. The linkage arm is finally adjusted so that the roller is about 2 mm from the retiring ramp when the ramp is retracted. **Fig.8** represents mounting of the roller for SHL-88X. For **SHL-86** use pull rod (Art.no: 2040016) and bevel gear SHL-86 (Art.no: 2040015). SHL-rope comes with control wire instead of pull rod. The sub components is included in the kits.

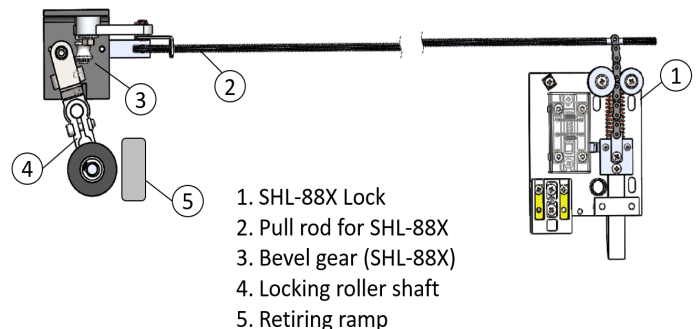


Figure 8 Mounting of the roller for SHL-88X lock

### TECHNICAL SPECIFICATIONS

Lock/Auxiliary contact:  
Voltage: 230VAC / 200VDC  
Current: 2A AC/DC

### REQUIREMENTS

The lock should not be lubricated. The European Standard **EN 81-20** requires a minimum latching bolt engagement of 7mm before the lock contact closes.

#### RECOMMENDATIONS

we recommend to adjust the latching bolt engagement to 15mm.

#### REGULATIONS

SHL-locks do not meet the requirements of **EN81-20** without extra means to prove the closed and locked position of the door, like an hidden door contact (Sweden) or mechanic device to control the closed position. Installation is carried out according to European standards **EN 81-20**.

#### CERTIFICATE

EU Certified, 20-GOT-LD-001, Kiwa Inspecta AB. Notified body No: 0409