

Electromechanical security lock with 1 locking point (fail-safe – without cylinder)

Superior quality electromechanical security lock working according to the fail-safe principle (= unlocked without power). The locks have been manufactured to be operated by different impulse generators: push buttons, numeric keypads, card readers, key contacts, timers, etc. These should be equipped with a Normally-Open contact. These locks are mortise locks. The hardened duplex bolt, as well as the deadlock, are mounted on a solid baseplate. This baseplate is made of stainless steel (AISI 304, cast according to the lost-wax process). The stainless steel covers (AISI 304) provide a closed case. There are 2 stainless steel striker plates with closed striker cup (for extra protection of the bolt) available. The SSP striker plate has a fixed striker cup, which cannot be adjusted after installation. The ASP striker plate has an adjustable striker cup, which can be adjusted 2mm to the left and 2mm to the right any time after the installation.

The control system integrated in the lock provides for automatic locking when the door closes. The lock detects the striker plate by means of 3 Hall-sensors on the printed circuit board (which is protected against humidity etc. by a polyurethane casted resin). Subsequently, the bolt is ejected by a single acting solenoid and instantaneously blocked by the deadlock. The lock will now switch from activation current to holding current. To unlock, contact must be made between terminal clamps 2 and 3. Subsequently, the current to the solenoid is interrupted by the internal printed circuit board, causing the bolt to be retracted by means of springs. The bolt will remain retracted until the door closes and the striker plate has been detected (when no permanent contact is made between the 2 terminal clamps mentioned before). If the door is not opened after the unlocking impulse, the lock will automatically relock after 4 seconds. In case of power failure, the lock will remain in or go to the unlocked position.

Due to its symmetrical bolt, the door can be used both left and right. These locks are usually integrated in the door frame in order to avoid the use of a cable transfer (in this case, the striker plate is integrated in the door leaf). These locks can also be installed horizontally, with the bolt pointing downwards. This lock can be used in combination with automatic door openers. These electric locks should always get continuous power supply. That will ensure that they retain their intelligence and therefore will know their position.

Signalisation is provided with regard to the position of the bolt (locked - unlocked) and the position of the door (closed - open). These contacts switch to GND when activated (24V DC / max. 100mA). This lock model complies with the standard EN 14846 (classification 3 M 9 0 0 L 7 1 1) - approval of conformity SKGIKOB.009753.xx.ENG and is suitable for high frequency use and can be activated continuously.

For the proper functioning of the lock it is important that the correct power and current arrives at the lock. Correct cable and power supply specifications must therefore be respected:

- cable: 2 x 1,5mm² (power cable) + 5 x 0,22mm² (signalisation wire); shielded (can be ordered separately with reference: BB25LSZH).
- power supply: 24V DC; 2,5A stabilised power supply (can be ordered separately with reference: PWR2-24).

The total distance between the lock and the power supply is limited to maximum 25m (this to avoid too large a drop in power supply on the cable).

In case this maximum distance cannot be respected it is an option to use a 48V DC; 1,5A power supply (reference: PWR2-48) and install our APS-24 module within 10m of the lock. The total distance between the lock and the power supply can then be increased up to 300m.

Technical characteristics:

Voltage	24V DC
Consumption	2,35A activation current - 130mA holding current
Principle	Fail safe (= unlocked without power)
Backset	n/a (without cylinder block)
Direction	Both L and R - symmetrical bolt for both bumper doors and revolving doors
Unlocking	Access control makes contact between pin 2 and 3 on the lock, the bolt retracts by spring force
Automatic locking	Electrically, each time the door closes
Panic function	There is no handle, so not according to EN 179
Signalisation	Position of the door (open/closed) and position of the bolt (unlocked/locked), transistors switch actively to GND (24V DC / max. 100mA)
Resistance of the bolt	40'000N side load (measured directly on the bolt)
Throw of the bolt	20mm (in less than 100 milliseconds)
Temperature resistance range	-25°C to +70°C