KABA®
MAUER

1 General Points

These mounting instructions constitute the basis for ECBS-, VdS-, A2P (CNPP)-, DNV-, UL- recognition. The installation of the lock is to be effected solely in compliance with these instructions.
The guidelines laid down by the national certification institutions have also to be taken into account and duly adhered to.

- Avoid residual crystalline moisture in the cabinet (e.g. from varnishing) to make sure that electrical contact areas are not attacked.
- Make sure that the ingress of dirt or detergents (e.g. remaining fillers or cold cleaners) is prevented.
- Do not grease/oil the lock or key.
- It is recommended, that unauthorized persons have no access to security sensitive parts of the lock, also the door of the safe, where the lock is installed, is open.

2 Instructions for the Fitting of the Lock and Operating Unit

- **Right hand installation (standard):**

Lock mounting position	
Bolt left, keyhole horizontal	
Bolt below, keyhole vertical	
Bolt up, keyhole vertical	

Table 1

- Any variation of the lock or key may result in functional trouble and must better not be done. All claims under guarantee and warranty will expire in this case.

- Lock fastening: Use of M6 steel socket head cap screws or BSW ¼" steel bolts. The length of engagement must correspond to the applicable standards considering the thickness of the lock of 30 mm and the screwing height of the lock case of 24 mm.

- Fastening screws: minimum property class 4.8 and maximum property class 8.8.

- Screws to be secured either by lock washer, flat spring, tooth lock washer, fan type lock washer considering the diameter (d1) or to be cemented.

- Screw tightening moment : minimum 5 Nm and maximum 6 Nm.

- The bolt must be floating in installed condition.

- Perfect function of the lock and of any additional connected or triggered systems (e.g. boltworks) must be warranted and checked by specialists during installation of the lock.

- The lock must be mounted in closed condition (bolt extended).

- The opening (cable gland) in the door of the secure storage unit may not be greater than 100 mm^2 (see mounting diagrams on Page 5 and following).

- The lock is designed for installation in secure storage units made of steel. Installation in storage units consisting of other material e.g. plastic is not allowed.

- Do not apply any kind of force (e.g. hammer blows) for screw fitting and adjustment of the lock.

- Lock to be installed covered and so as to prevent opening by boring.

- The two way key must be insertable without jamming.

Use of the Kaba-Mauer key guide (see diagram 1) is recommended. Considering DIN 2768-mH, the keyhole in the door of the secure storage unit should be dimensioned accordingly (see diagram 1).
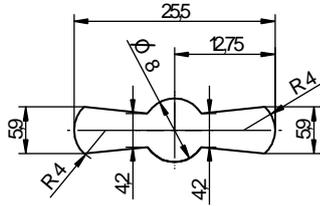
Diagram 1: Key guide 86101

- In cases where the Kaba-Mauer key guide or key carrier guide are not used, the maximum cross sectional area of the keyhole in the door of the secure storage unit and/or the lock armour plating may not exceed the dimensions given in Diagram 2 considering DIN 2768-mH. All dimensions deviating from these specifications are to be coordinated separately with the certification bodies (test houses).
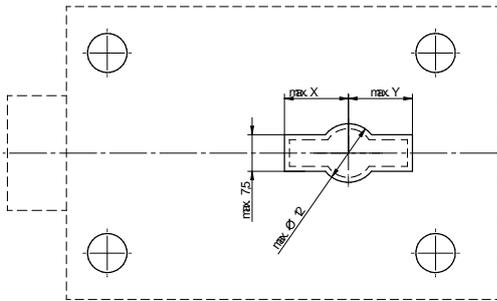
E-Variator B	X (mm)	Y (mm)
70211-218	13.5	13.5

Diagram 2: Max. cross sectional area of keyhole

- For installation and adjustment of the lock on the door, make sure that the key can be inserted into the lock without applying force and without jamming. This can be achieved by mounting the lock according to the following pattern of mounting holes (see diagram 3). For further lock dimensions please refer to the Kaba Mauer Catalogue Sheet.
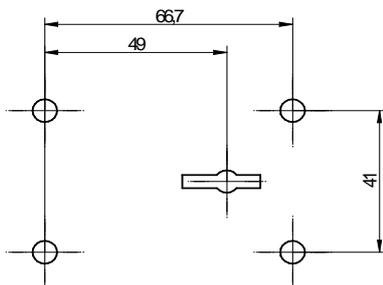
Diagram 3: Fastening hole pattern

- There is a projecting pin on the reverse side of the lock casing (see diagram 4), protruding out of the housing. By holding the pin the lock can be closed with the key.
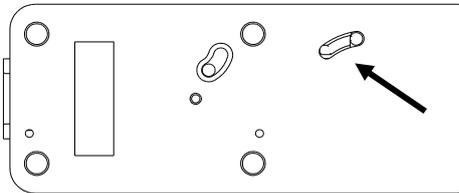

Diagram 4: Reverse side of lock casing

3 Technical Data

- Lift height of bolt 12 mm

- Bolt extension in locked-out condition: approx. 14 mm

- Bolt width: 25,4 mm; Bolt height: 8 mm

- The maximum allowable force acting on the key bolt in opposite direction to the direction of locking, the maximum locking force and the lateral load acting on the bolt, correspond to 1 KN and should not exceed this value. Provision should be made design wise for bolt stoppers on both ends or for a bolt support.

- The actuating turning moment on the key may not exceed 2.5 Nm.

- The bolt was according to EN1300 with a permanent load of 2,5 N over 10.000 cycles tested. These load should not be exceeded permanently.

- Fastening of the boltwork: via two M4 threads on the front end of the bolt head.

- Optional bolt works connection: Via a drive pin in the head of the bolt.

| Interface	Function element	Specification	Operating time (OT)
Input	Solenoid for release	563 Ohm, U_{min}= 5 V DC U_{max}= 24 V DC	5 - 12 V: 100% OT 24 V: 87% OT With a cycle time of 3 minutes a duty cycle of 87% means 2:36 min. on and then 0:24 min. off.
Output	Microswitch for key monitoring	Change-over contact, 100 mA, 30 V DC	
Output	Microswitch for bolt monitoring	Change-over contact, 100 mA, 30 V DC	

Table 2
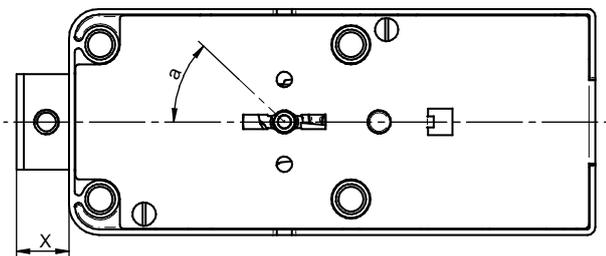
Diagram 5: Switch point bolt way and rotation angle

Version / Option code	Switch point bolt protruding [X mm]	Switch point rotation angle [α°]	Switch point reachable with	
			Key with correct Code	Key with any code
Standard	ca. 14	ca. 73 ± 5	+	+
Option CSA	ca. 11,5	ca. 96 ± 2	+	-

Table 3

At the version ''Standad'' the key switch contact (request switch) can be reached by every random coded key after approx. 73° rotation angle. At the version ''Option CSA'' (coded key inquiry) can this only be reached by correct coded keys after approx. 96° rotation angle. At this key position (Switch point rotation angle 73°/ 96°), the solenoid is separated, so that with the energization a direct opening resp. turning the correct coded key to approx. 130° is NOT possible. The key has to be turned back in 0°-position, so that the solenoid is not seperated. After that the lock can be opened with the correct coded key.
Attention: The energization hast to be active until the lock has been opened completely.
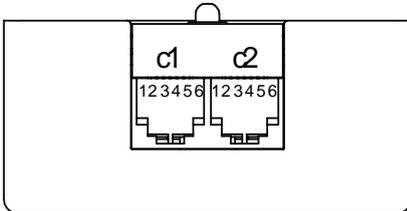
4 Pin Assignment

4.1 Specification Socket

Diagram 6

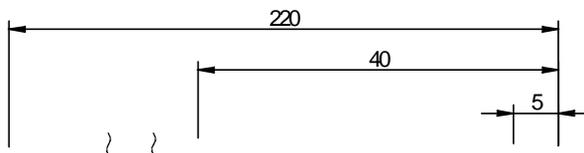| connector	application	pin	function
c1	bolt monitoring	1	switch common
		2	switch normally open
		3	switch normally closed
		4	nc
	alternative usable to c1 release signal	5	solonoid (=c2 pin 5)
		6	solonoid (=c2 pin 6)
c2	key monitoring	1	switch common
		2	switch normally open
		3	switch normally closed
		4	Nc
	release signal	5	solonoid (=c1 pin 5)
		6	solonoid (=c1 pin 6)

Table 4

4.2 Specification Plug

As plug is recommended: 6 pin Westernplug RJ12 (6P6C)

4.3 Specification accessory cable (ordered separately)

Accessory cable 3 002 500 047