

# M•LOCKS

**Motor lock**  
**EM2520**  
**EM3020**  
**EM3050**

**Mounting  
instructions**  
**VO4 EN**



**M•LOCKS BV**

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### 1 IMPORTANT INSTRUCTIONS

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- Before mounting the lock, please read the instructions for use carefully.
- Ensure that you **only** program the lock when the **safe is open**.  
After changing the code, always try the code several times with the safe door open.
- **Only after several positive function tests (opening / closing) the safe door can be closed.**
- Each key entry is confirmed by an audible tone and visual signal. These signals are not referred to in the description that follows.
- You have a maximum of 10 seconds for each key entry. If you do not make an entry via the keypad during this period of 10 seconds, the entry procedure will automatically abort. You must then start again from the beginning.
- After entering a valid code, you will hear two audible tones. An invalid entry will trigger a long tone.
- If you accidentally enter an invalid code at the first attempt, you must wait 20 seconds before you re-enter the code.
- Our products fulfil the EN1300 requirements regarding resistance against electrostatic charge. In fact it may happen that the electrostatic charge of a user exceeds the extreme value many times. That's why we are asking you to touch the metal surface of the safe for discharging before operating the lock.

- !** The certifications of our locks are valid only if used together with the entry units indicated on the respective certificates. As soon as an entry unit not specified on our certificates is used, the certification of the lock expires immediately.

**!** **Caution!**

- The lock has been designed for use in a temperature range from +10°C to +50°C and a non-condensing humidity range from 30% to 80%.
- It may only be cleaned with a moist cloth (do not use aggressive cleaning agents).
- The lock may only be installed by qualified fitters.
- The lock may not be lubricated.
- Never open the lock housing. If it is necessary to disassemble the hardware, only do so in accordance with the technical instructions. If you fail to do so, the lock may no longer function properly and you will forfeit your right to warranty.

## 2 CHARACTERISTICS

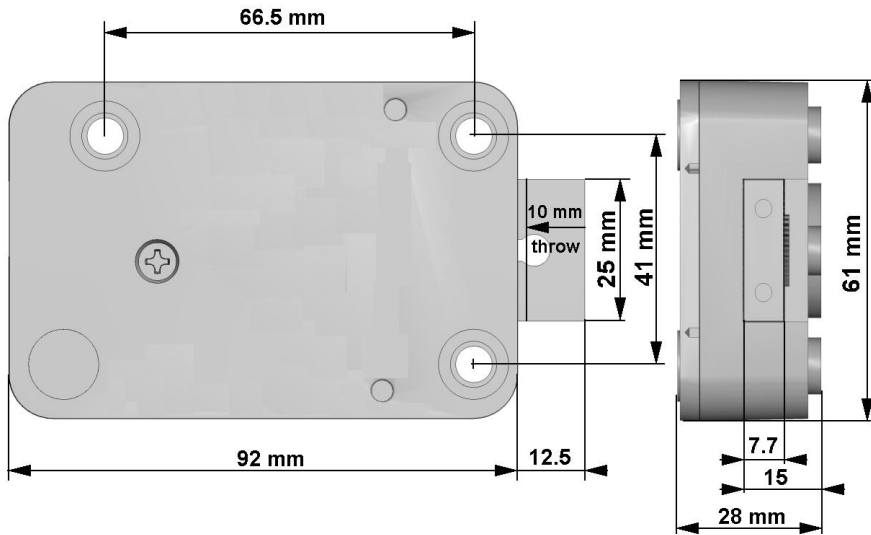
The Motor lock electronic features a 6-digit manager code. The code can be changed by the manager. With the manager code user codes can be activated and deleted. The **EM3050** has a 6- or 7 digits manager code. Depending on the programming of the lock until 9 users can be added. The lock can be programmed with silent alarm.

**EM2520 / EM3050:** After entering a right code, you will hear a double tone, you can now unlock the door and open it. If the door is not opened within 3 seconds, the lock will automatically lock again.

**EM3020:** After entering a right code, you will hear a double tone, you can now unlock the door and open it. To close the lock you have to push a random key (PTC= Push To Close).

The Motor lock can be mounted in all four mounting directions. The mounting dimensions are standard. The lock is delivered with metric (M6) mounting screws.

## 3 GENERAL



**The VdS recognition of this lock is based on this mounting instruction. Read carefully.**

The force applied to the lock bolt should not exceed 1 kN. If higher force is applied, please consult with the testing institute [i.e. UL, VdS]. Only use supplied screws to mount the lock. Fix the lock handtied. The maximum allowed cable / spindle-hole diameter is 11 mm [if located under the lock body]. Position of the cable hole depends on which entry unit is used.

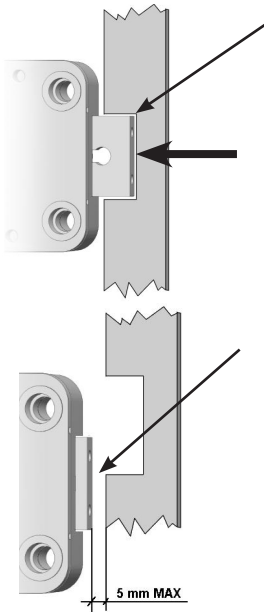
The lock has to be fitted exclusively on steel secure storage. The mounting base also must be made of steel. Installation on other materials only after consultation M-LOCKS or VdS .

It is recommended to prevent access to unauthorized persons to safety-relevant parts of the high-security lock when the safe is open. Par example by a with a screws fixed interior cover.

The lock housing must be protected against destructive attacks from outside with suitable protective materials.

## 4 BOLT REQUIREMENTS AND LOCK MOUNTING

The force applied to the lock bolt in locked condition must not exceed 1 kN (p. E. by a preconceived breaking point). If higher force is desired please consult with the manufacturer. Only use supplied screws to mount the lock. Handtighten the screws securely so the lock body is attached firmly to the mounting surface.



In the LOCKED position, there should be approximately 1 mm clearance between the lock bolt and the cavity in the blocking bar of the bolt-work. The lock bolt must move freely into the cavity.

Any bolt attachment should not exceed 0.5 Kg / 1 lb.  
[equals a force of 5N]

When the lock bolt is retracted, the distance to the blocking bar must not exceed 5 mm.

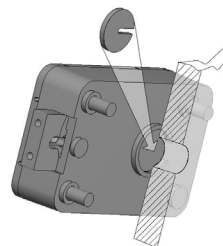
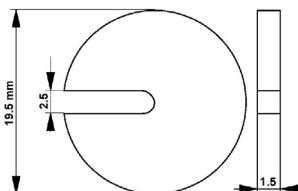
## 5 MOUNTING INSTRUCTIONS

Insert the connector of the entry unit in the inner position. Check that the connector(s) is completely seated. To remove the connector(s), carefully lift and pull it out. In the entry unit or battery / alarmbox connect a 9V ALKALINE Duracell, Industrial or Energizer batteries. Tie cables away from moving parts.

Note:

If a cable / spindle hole is located under the Motor lock, use a suitable drill protection; part number T016.

Cable-hole 9-12 mm.



## 6 FUNCTIONAL TEST

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### Functional tests always with door open!

- Enter code [1,2,3,4,5,6 or 5,5,5,5,5,5].
- Turn boltwork handle towards 'OPEN' position.
- For EM2520: After approximately 5 seconds, the motor can be heard again when it pushes the lock bolt against the blocking bar of the boltwork.
- Turn handle towards 'LOCKED' position.
- For EM3020: Push a random key. You can hear the motor and the bolt will slide to the locked position.
- When the lock is closed you will hear a double signal.

### Repeat functional test several times before locking the safe door!

### Check the keypad


If the lock does not react, follow the procedure below to check that your keypad is working.


**Press and hold key '5'** until you hear a double tone. The LED will illuminate when performing the following actions:



Next, press all of the keys one by one and one after the other.



If the key = OK 

If the key = not OK , the test will be aborted.

If one or more keys do not operate properly, please contact your supplier.

## 7 DATA SHEET

	EM2520 / EM3020 / EM2520 S / EM3020 S	EM3050 / EM3050 S
Opening	Automatic	Automatic
Locking	Automatic / PTC	Automatic / PTC
Blocking element	Blocking gear / Motor	Blocking gear / Motor
Mounting Dimensions	Standard	Standard
Possible mounting positions	4	4

	EM2520 / EM3020 / EM2520 S / EM3020 S	EM3050 / EM3050 S
<b>Power supply</b>	9V Alkaline Duracell, Industrial or Energizer Battery	
Software	Codes	2 (6 digits)
	Manager Codes	1
	User Codes	1
	Time delay / open window	01-99 min / 01-19 min
	Battery low signal	Yes
	Dallas key	-
	Silent alarm	-
	Audit 2000 events with Date & Time	-
	Manipulation protection	5 minute lockout after 4 consecutive wrong codes

## 8 NOTES

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