

# M•LOCKS

**Rotobolt  
EM2020  
EM2050**

**Mounting  
instructions  
V04 EN**



**M•LOCKS BV**

Vlijtstraat 40 • 7005 BN Doetinchem • The Netherlands • [www.m-locks.com](http://www.m-locks.com)



### 1 IMPORTANT INSTRUCTIONS

- 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 safedoor open.
- **Only after several positive function test (opening / closing) the safedoor 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!**

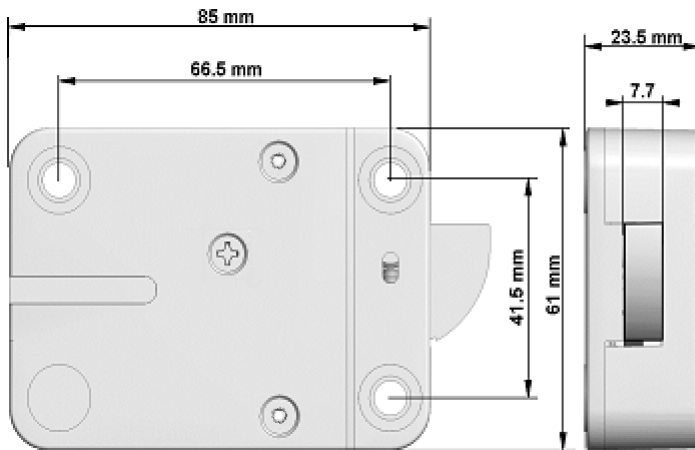
- The lock has been designed for use in a temperature range from +10°C to +50°C and a non-condensing humidity range from 30% to 80%.
- It may only be cleaned with a moist cloth (do not use aggressive cleaning agents).
- The lock may only be installed by qualified fitters.
- The lock may not be lubricated.
- 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 Rotobolt lock can be mounted in all four mounting directions. Also, by flipping the lock, all blocking directions can be achieved. The mounting dimensions are standard. The lock is delivered with metric (M6) mounting screws.

The electronics feature a 6- digit main code (in some cases it may be that the lock requires a 7-digit code) that can be changed by the user. With the main code usercode(s) can be activated and deleted. If a valid code has been entered, the lock electronics removes the blocking for 3 seconds and the boltwork can be moved into OPEN position by pushing the bolt inside the lock case. When moving the boltwork into LOCKED position the Rotobolt automatically secures.

### 3 MOUNTING INSTRUCTIONS



**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 hand-tied. 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 BOLTWORK REQUIREMENTS

The force applied to the boltwork on the lock bolt has to be limited to 1 kN (p. E. by a preconceived breaking point). Please contact your manufacturer if higher forces are needed. Only use supplied screws to mount the lock.



The maximum allowed cable/spindle-hole diameter is 11mm (if located under the lock body)

If the Rotobolt lock is used in conjunction with another lock, the boltwork must be constructed in a way that the Rotobolt secures first.

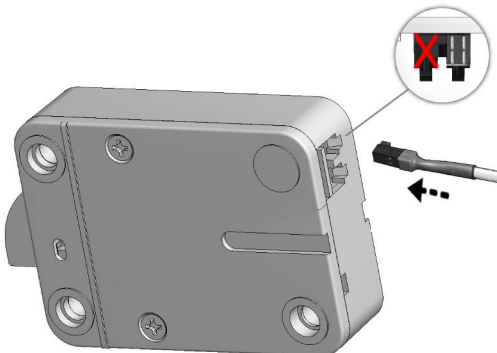
In the LOCKED position the distance between the Rotobolt bolt and the boltwork part that is moving the lock bolt should be approximately 1 mm.

Only use supplied screws to mount the lock. Tighten the screws securely so the lock body is attached firmly to the mounting surface.

(Maximum Torque 5, 5 Nm)

## 5 MOUNTING INSTRUCTIONS

Mount the entry unit following the manufacturer's instruction.



Insert the connector of the entry unit in the outer (ENT) position. Connect battery / alarm box connector (if used) in the inner (BAT) position. Check that the connector(s) is completely seated.

To remove the connector(s), carefully lift and pull it out.

Connect a 9V alkaline Duracell, Energizer or Procell battery to the battery clip to the keyboard (or battery box), and check the lock functions. Keep the cable from sharp edges or moving boltwork parts and set permanently.

## 5 FUNCTIONAL TEST

### This functional test always with door open!

- Enter code. The lock emits a double signal for the correct code.
- Turn boltwork handle towards OPEN position.  
The bolt rotates into the housing. Bolt must move freely.
- Turn handle towards LOCKED position.  
The lock bolt must fully extend and secure.
- Make sure there is an air space on all sides of the lock bolt when the safe's boltwork is fully thrown into locked position.

### Repeat the functional test several times before closing 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 in 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.

### Installation check

With door open, bring boltwork in LOCKED position:

- Deadbolt must only be loaded at the locking point.
- Avoid continuous pressure on the latch.

**Only after several positive function tests (opening / closing) the safedoor can be closed!**

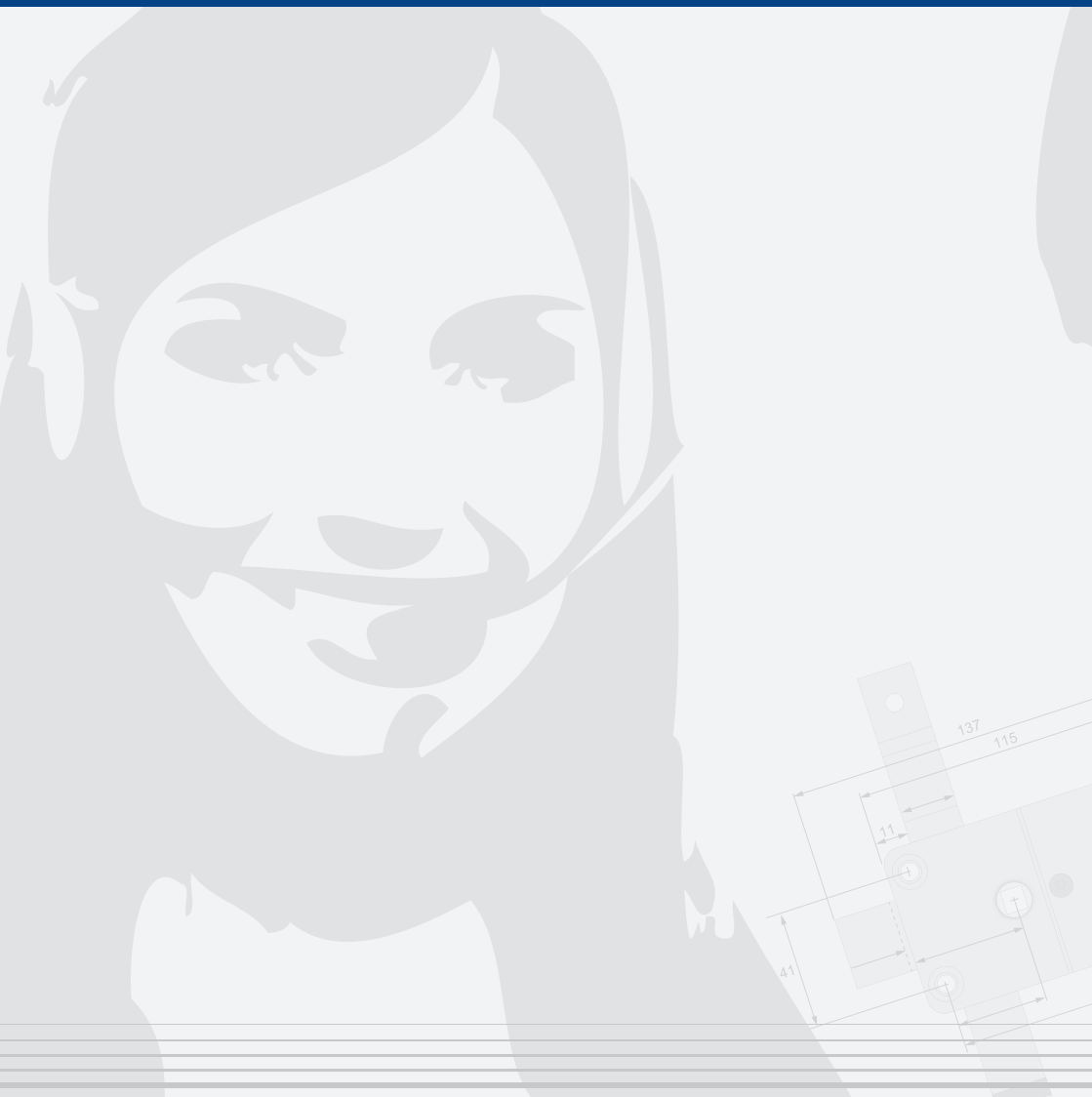
## 6 DATASHEET

|                             | EM2020 / EM2020 S | EM2050 / EM2050 S |
|-----------------------------|-------------------|-------------------|
| Opening                     | Half automatic    | Half automatic    |
| Locking                     | Automatic         | Automatic         |
| Blocking element            | Motor             | Motor             |
| Mounting dimensions         | Standard          | Standard          |
| Possible mounting positions | 4                 | 4                 |

|                                       | EM2020 / EM2020 S   | EM2050 / EM2050 S        |
|---------------------------------------|---|--------------------------|
| <b>Power supply</b>                   | 9V Alkaline Duracell, Procell or other- Energizer block batteries |                          |
| Codes                                 | 2 (6 digits)  | Up to 10 (6 or 7 digits) |
| Manager Codes                         | 1   | 1                        |
| User Codes                            | 1   | Up to 9                  |
| Time delay / open window              | 01-99 min / 01-19 min   | 01-99 min / 1-19 min     |
| Battery low signal                    | Yes   | Yes                      |
| Dallas key and code                   | -   | Dallas key and code      |
| Silent alarm                          | -   | Silent alarm             |
| Dual mode                             | -   | Dual mode                |
| Audit 2000 events<br>with Date & Time | -   | -                        |
| Manipulation protection               | 5 minute lockout after 4 consecutive wrong codes                  |                          |

## 7 NOTES

# M•LOCKS



**M•LOCKS BV**

Vlijtstraat 40 • 7005 BN Doetinchem • The Netherlands • [www.m-locks.com](http://www.m-locks.com)