

# Motorized blocking system

Installation Instructions



## Motorized blocking system

### Company

Founded in 1983 with the aim of providing a complete range of professional products, Tecnosicurezza is now a consolidated reality in the field of locks and security systems for safes.

The experience gained in over 35 years of activity in the security sector has allowed the designing and manufacturing of high technology and reliability systems, which continue to receive the approval of an increasingly demanding clientele.

TECNOSICUREZZA is present directly all over the world through its own branches and with an extensive distribution network.

TECNOSICUREZZA is aimed at national and international customers of primary importance, such as banks, safe manufacturers, cash in transit companies, mass market retailers and post offices.

Today TECNOSICUREZZA is a leading company focused on the customers' needs and constantly in step with technology.

## Motorized blocking system

### Table of contents

<b>COMPANY</b>	<b>2</b>
<b>TABLE OF CONTENTS</b>	<b>3</b>
<b>IMPORTANT NOTES!</b>	<b>4</b>
<b>MOTORLOCK LOCK DIMENSIONS</b>	<b>5</b>
<b>MOTORLOCK LOCK INSTALLATION INSTRUCTIONS</b>	<b>6</b>
<b>CHARACTERISTICS AND CABLING</b>	<b>7</b>
<b>FUNCTIONAL TEST</b>	<b>7</b>
<b>CONTACTS</b>	<b>8</b>

## Motorized blocking system

### Important notes!

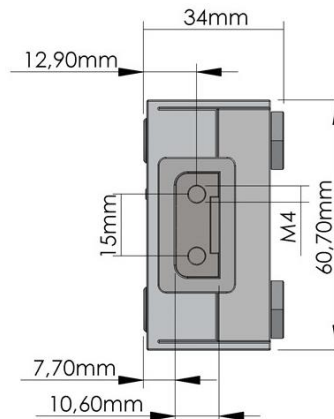
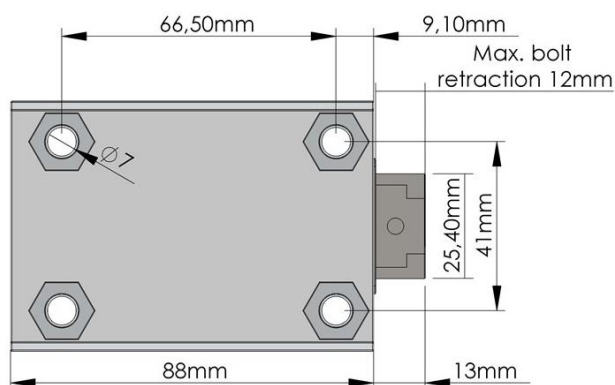
- Before installing this product, please read carefully the installation and operating instructions.
- Locks can be installed in all traditional safes.
- Lock has to be mounted on secure storage metal (preferred steel) units only.
- Locks must be protected against external attacks, for this reason it is recommended to install them on the door away from any through holes.
- If locks are not properly protected by systems belonging to the safe (manganese plates, glass plate, relocking, etc.) only MotorLock (T4501/M) lock can be mounted behind the passage hole for the connection cable or the spindle.
- Any electronic part must be properly protected and not easily accessible even when the door is open.
- Locks have been developed to work correctly in a temperature range from -5 ° C to + 50 ° C and in an environment with non-condensing humidity between 25% and 90%.
- The mounting dimensions are standard (magic module).
- Locks are supplied with metric (M6) mounting screws. Upon request, Imperial 1/4-20 UNC format mounting screws are available.
- The type of material and the length of the screws must, in any case, be selected so as to guarantee long life and reliability.
- Tighten the screws so that the lock is firmly fixed to the mounting surface (recommended torque between 2.5 and 5.5 Nm).
- The mounting surface must be perfectly flat.
- In order to prevent loosening of the screws it is recommended the use of LOCTITE® threadlocker and/or specific washers positioned under the head of the fixing screw.
- The diameter of the passage hole for the connection cable or the spindle must not exceed 11 mm.
- The hole must be completely cleaned of drill dust and no edge should be sharp.
- Lock must not be lubricated.
- In the locked position, the distance between the bolt and the boltwork part that is moving the lock bolt must comply with the following specifications for each type of lock.

## Motorized blocking system

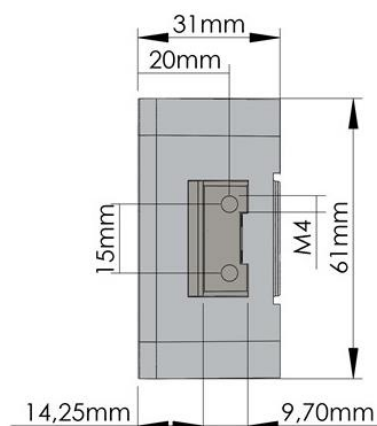
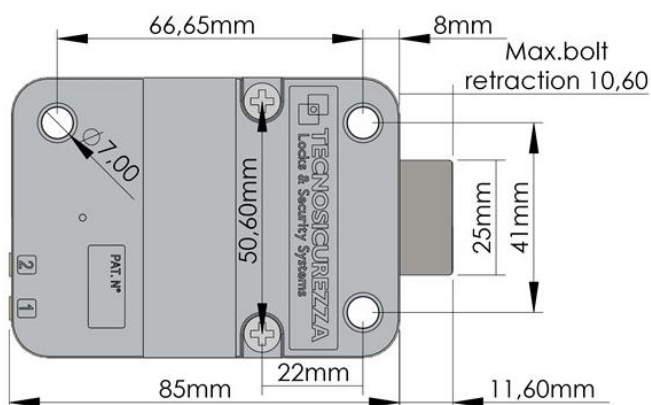
- Any component to be fixed to the lock bolt must be previously approved by Tecnosicurezza before installation. In any case, the maximum load must not exceed 2.5 N for T4500/M/C model and 4N for T4501/M/C.
- Secure the cables away from moving parts by using cable ties and cable ties bases.
- If placed in normal domestic or office environments, the locks do not require particular maintenance; in any case, after 10,000 opening/locking cycles, it is recommended to run a test that verifies the correct and complete operation of the product.

### MotorLock lock dimensions

#### T4500/M/C



#### T4501/M/C



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### MotorLock lock installation instructions

MotorLock is a lock whose block is carried out by a motor.

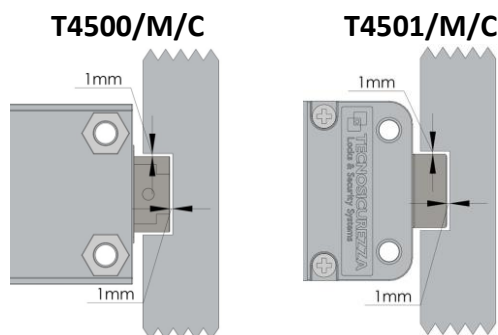
By powering the lock, the motor retracts the bolt with the opening command which remains in the open position until the closing command is performed and the bolt returns to the locked position.

Lock can be mounted in all four mounting directions (RH, LH, VU, VD).

Furthermore, by flipping over the lock, both locking directions can be realized (RH/LH).

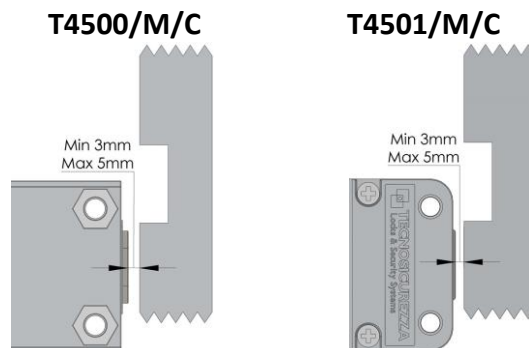
The mounting dimensions are standard (magic module).

Locks are supplied with metric (M6) mounting screws. Upon request, Imperial 1/4-20 UNC format mounting screws are available.

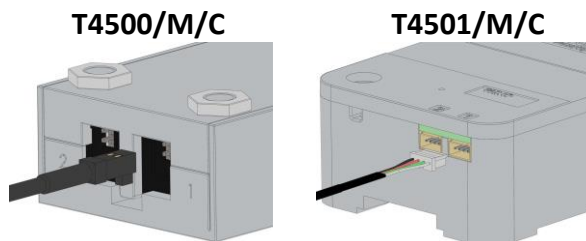


In the locked position, there should be approximately 1 mm clearance between the lock bolt and the cavity in the blocking bar of the boltwork. The bolt must be able to move freely without applying any force on it.

In open position, there should be a minimum of 3mm and maximum of 5 mm clearance between the lock bolt and the blocking bar of the boltwork.



Insert the cable into the lock connector "1", making sure it is fully inserted and locked. To remove the cable, bring the connector upwards and carefully pull it out.



It's possible to connect a relocker to the lock cover through the appropriate holes.

Fix the relocker plate with M4 self tapping flat head screws. Length must be 6mm + plate thickness.

(i.e. 6mm + 2mm plate = 8mm screw)



## Motorized blocking system

### Characteristics and Cabling

#### Characteristics

The T4500/M/C and T4501/M/C are motorized locks that does not require a keypad or other control units, in fact, the opening and closing of the bolt is driven by means of electrical contacts. In order to open the bolt is necessary to close the contact between the black and green wires for a period of one second.

In order to close the bolt it is necessary to close the contact between the black and red wires for a period of one second.

#### T4500/M/C cabling

Power supply:

On connector 1

Yellow positive – Black negative.

V = 9V – 12V – 13.8V

I run = 115mA @ 9V

I sleep = 5µA

Opening/closing bolt contacts

Black wire – common

Green wire – opening

Red wire – closing

Bolt microswitch:

Blue wire – common

Red wire – normally open

Green wire – normally closed

#### T4501/M/C cabling

Power supply:

On connector 1

Yellow positive – Black negative.

V = 6 ÷ 12 V

I run = 100mA @ 9V

I sleep = 5µA

Opening/closing bolt contacts

Black wire – common

Green wire – opening

Red wire – closing

Bolt microswitch:

Blue wire – common

Red wire – normally open

Green wire – normally closed

### Functional test

To be carried out with the door open.

Provide power to the lock.

Close the contact between the black and green wires for a second. The lock opens.

Turn boltwork handle towards OPEN position. Bolt must move freely.

Close the contact between the black and red wires for a second. The lock closes.

Turn boltwork 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 functional test several times before locking the safe door.**

**Failure to follow these installation instructions or opening the lock by personnel not authorized by Tecnosicurezza will void the warranty.**

**Correct disposal of this product:  
(Waste Electrical & Electronic Equipment)**

Applicable in the European Union and other European countries with separate collection systems.



This marking displayed on the product or its literature indicates that it should not be disposed with other wastes at the end of its working life.

To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

## Contacts

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