

TechMaster

Installation instructions



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 on the Italian, Spanish and US markets and, through a extensive distribution network, in many European and extra-European countries.

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.

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Models and characteristics

Model	Variant
T9530/GR – Keypad in metal. Satin chrome colour with rubber membrane foil keypad in grey colour.	/DL with Dallas key reader.
	/C with connection kit for T9355/IP interface.

Accessories

Code	Description
N077/A	Battery box with alarm interface.
L4001	Large battery box for 6 size C 1.5V batteries.
T6005/W	Power supply interface (12Vdc).
T6005	Power supply interface (12Vdc) with alarm interface.
L2666	Knob with 6 mm square spindle.
N1971	User Dallas key.
T9355	I/O interface.
T9355/IP	I/O interface with TCP/IP for remote management.
N10017/01 and /02	Open Device with led and buzzer or with only led

Audit and programming accessories

Code	Description
N42180/T	USB interface.
T42146/J	Setup and audit cable.

CERTIFICATE OF COMPLIANCE

Certificate Number 20131119-BP10647
Report Reference BP10647-20130913
Issue Date 2013-NOVEMBER-19

Issued to: **TECNOSICUREZZA SRL**
VIA CESARE BATTISTI 276
37057 SANGIOVANNI LUPATOTO VR ITALY

This is to certify that representative samples of HIGH-SECURITY ELECTRONIC LOCKS, TYPE 1
See Addendum Page

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety: Subject 2058 – High-Security Electronic Locks
Additional Information: See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Listing Mark should be considered as being covered by UL's Listing and Follow-Up Service.

The UL Listing Mark generally includes the following elements: the symbol UL in a circle:  with the word "LISTED"; a control number (may be alphanumeric) assigned by UL; and the product category name (product identifier) as indicated in the appropriate UL Directory.

Look for the UL Listing Mark on the product.



William R. Carney, Director, North American Certification Programs
UL LLC

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CERTIFICATE OF COMPLIANCE

Certificate Number 20131119-BP10647
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This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

High Security Electronic Lock, Type 1 Model TechMaster comprised of the subassemblies below.

High Security Electronic Lock Subassembly Keypad- T9530 may be followed by -XX or X/YY. The XX = (DL -suffix stands for Keypad with Dallas reader) or R= Rotation Kit. The X/YY = R/DL = Rotation Kit and Dallas Key

High Security Electronic Lock Subassembly -Swing Bolt Rotobolt- Model T5300

High Security Lock Subassembly- Deadbolt Straightbolt- Model T5300/D.

High Security Electronic Lock, Type 1 Model MiniTech Comprised of the subassemblies below.

High Security Electronic Lock Subassembly- Keypad – T9520 may be followed by -XX or X/YY. The XX = (DL -suffix stands for Keypad with Dallas reader) or R= Rotation Kit. The X/YY = R/DL = Rotation Kit and Dallas Key

High Security Electronic Lock; Swing Bolt Rotobolt- Model T5200

High Security Electronic Lock; Deadbolt Straightbolt- Model T5200/D.



William R. Carney, Director, North American Certification Programs
UL LLC

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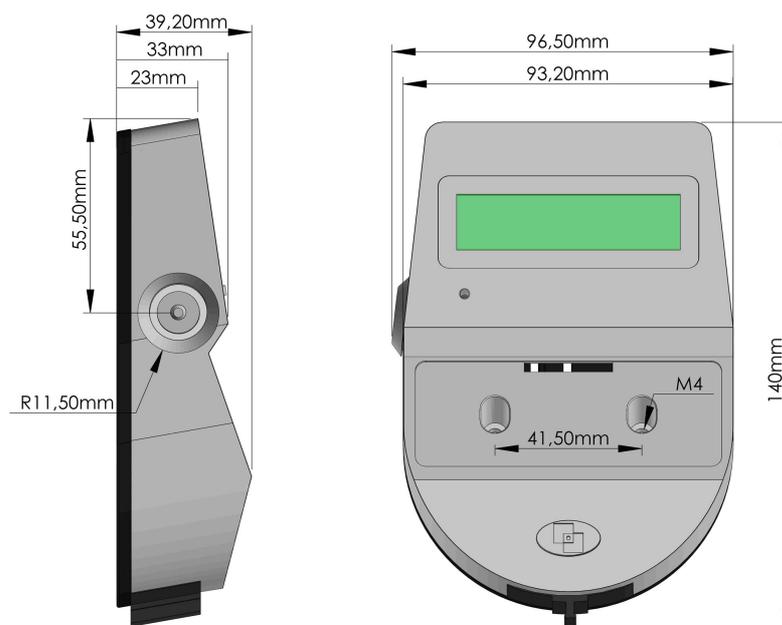
Important notes!

- Before installing this product, please read carefully the installation and operating instructions.
- Locks can be installed in all traditional safes.
- Locks have 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.
- 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).
- For keypad and lock installation, use only the screws provided by Tecnosicurezza. Any other screw must be approved in advance.
- 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 the screws from loosening, 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 drilling dust and no edge should be sharp.

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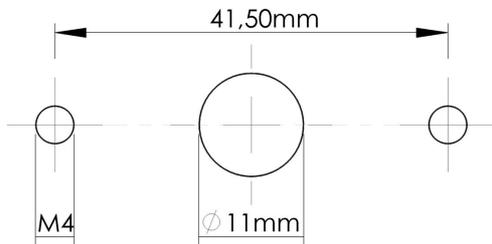
- Lock must not be lubricated.
- In the locked position, the distance between the bolt and the boltwork part which moves the lock bolt must comply with the following specifications for each type of lock.
- Any component to be fixed to the lock bolt must be previously approved by Tecnosicurezza before installation. In any case, the maximum load must not exceed 2.5 N.
- 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/closing cycles, it is recommended to run a test that verifies the correct and complete operation of the product.
- Use only DURACELL™ 9 Volt Alkaline batteries, or battery holders with DURACELL™ 1.5 Volt Alkaline batteries. Alternatively, it is also possible to use a stabilized 12V - 1A power supply (p.n. N1212) with relative power supply interface (p.n. T6005/W or p.n. T6005).
- A series of acoustic signals during opening indicate a low battery level. In this case, the battery must be replaced.

Keypad dimensions

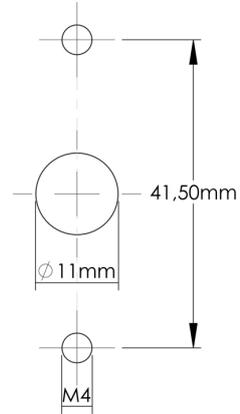


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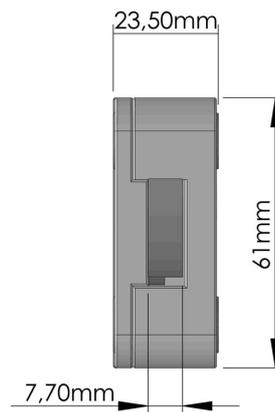
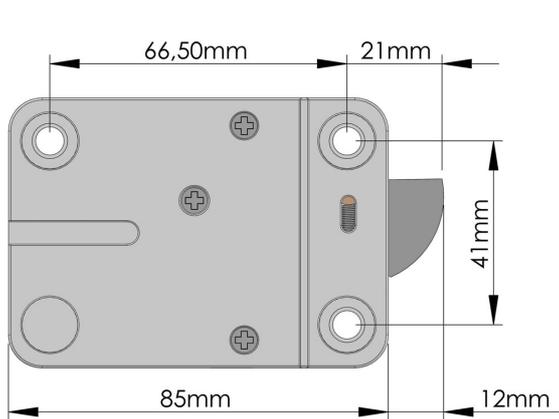
Montaggio STANDARD



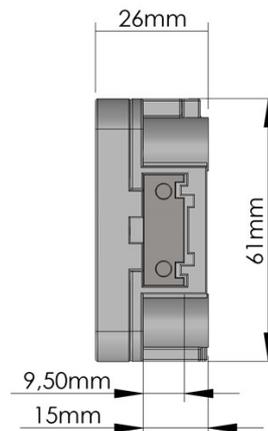
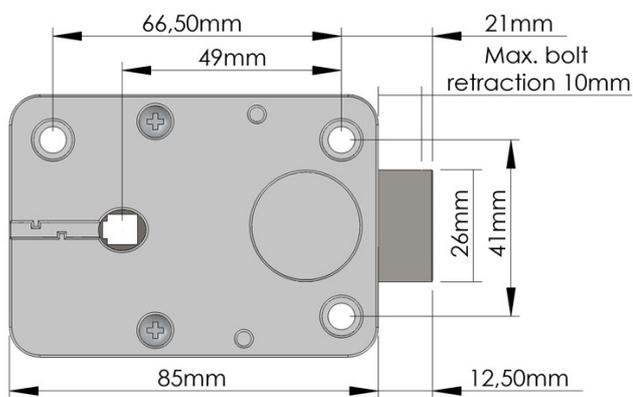
Montaggio VERTICALE



RotoBolt lock dimensions

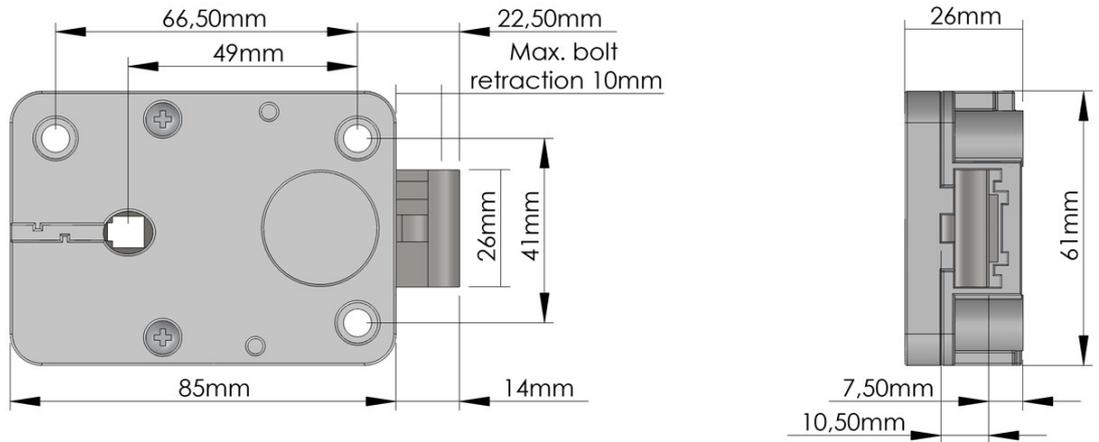


StraightBolt lock dimensions

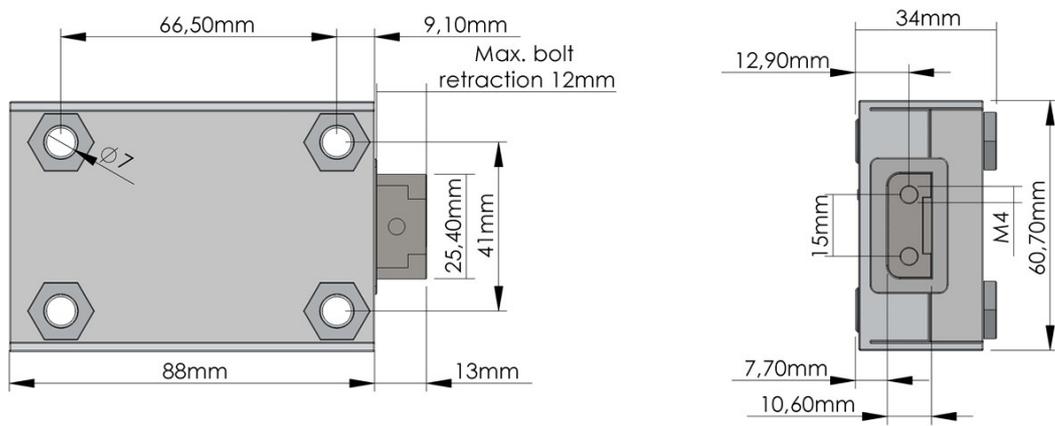


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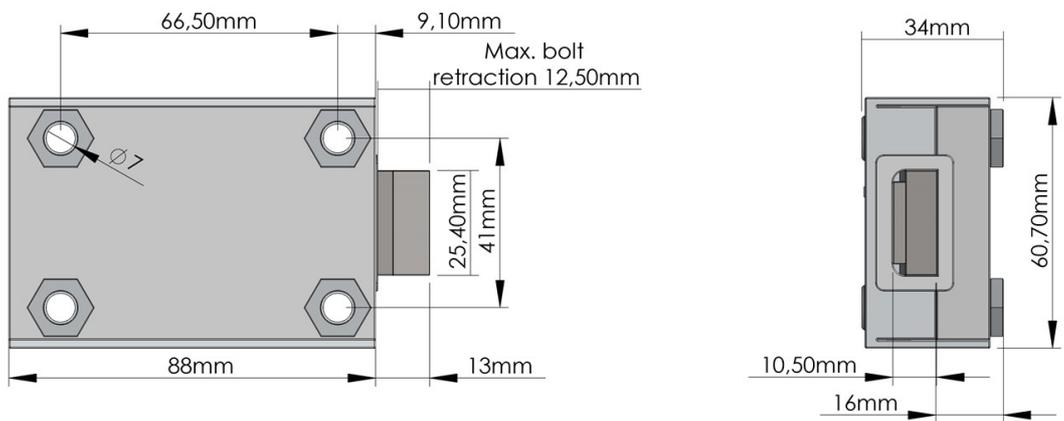
SpringBolt lock dimensions



MotorLock lock dimensions

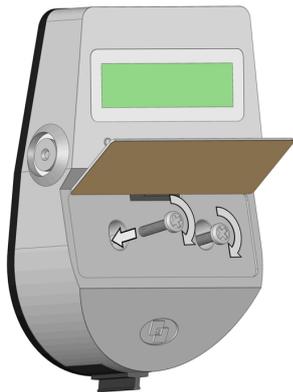


MotorSpringBolt lock dimensions



Fixed keypad installation instructions

Insert the keypad cable inside the hole on the safe door and connect it to the lock connector "ENT" (connector 1 in the case of a MotorLock or Motor SpringBolt lock). Lift the keypad membrane and, making sure that the connection cable and the battery cable are not damaged by the keypad case, fix the screws to the relative threaded holes on the safe door.



Montaggio STANDARD



Montaggio VERTICALE

The keypad can also be installed in a quick hooking/unhooking mode (vertical mounting).

Remove the release liner placed under the membrane and apply the latter on the keypad case. Connect a battery to the battery connector inside the keypad battery compartment or, if provided, connect the battery pack to the lock connector "BAT" (connector 2 in the case of a MotorLock or Motor SpringBolt lock).



RotoBolt lock installation instructions

The RotoBolt lock is a swingbolt lock whose block is carried out by a motor; it can be installed in all 4 directions, even upside down.

After entering a valid code, the lock electronic removes the blocking for 3 seconds and the boltwork can be moved into open position by pushing the bolt inside the lock case.

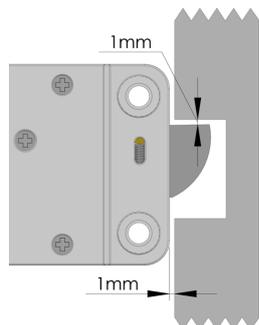
The bolt automatically secures when the safe handle, or the safe door mechanism, is brought to the locked position.

If the RotoBolt lock is used in conjunction with other locks, the safe door mechanism must ensure the closure of the RotoBolt before the other locks.

The 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).

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In the locked position the distance between the RotoBolt bolt and the RotobBolt part that moves the lock bolt should be approximately 1 mm.

The bolt must be able to move freely without force being applied to it.



The maximum load applicable to the bolt must not exceed 1KN. Contact Tecnosicurezza in case of heavier loads.

Connect the keypad cable to the lock connector "ENT", making sure it is fully inserted and locked.

Any alarm interface or battery holder must be connected to the lock connector "BAT".

To remove the cable, bring the connector upwards and carefully pull it out.

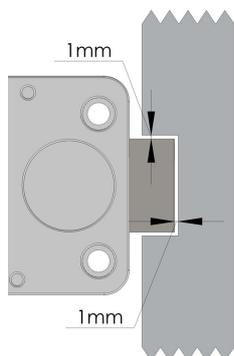
StraightBolt and SpringBolt locks installation instructions

StraightBolt and SpringBolt locks are locks with, respectively, a dead bolt and a spring bolt, whose block is carried out by a motor.

After entering a valid code, the lock electronic removes the blocking for 3 seconds and the boltwork can be moved into open position by turning the spindle inserted in the lock.

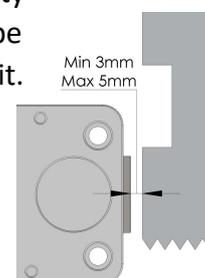
The spindle can be connected to a knob, a handle or directly to the keypad if equipped with a rotation kit. When the spindle is brought to the locked position, the bolt comes out ensuring the lock is locked.

The StraightBolt and SpringBolt locks can be mounted in all four mounting directions.



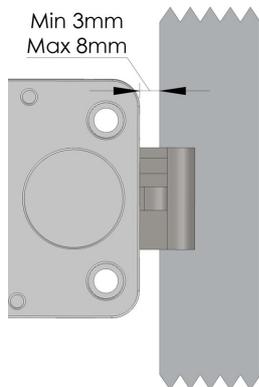
In the locked position, there should be approximately 1 mm clearance between the lock bolt and the cavity in the blocking bar of the boltwork. The bolt must be able to move freely without force being applied to it.

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.



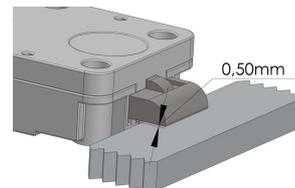
The maximum load applicable to the bolt must not exceed 1KN. Contact Tecnosicurezza in case of heavier loads.

The spring-latch version (SpringBolt) is specially designed to ensure self locking when the door closes.



The distance between the SpringBolt lock and the locking edge must be between a minimum of 3 mm and a maximum of 8 mm.

When locked, there must be a 0.5mm gap between lock bolt and locking surface.

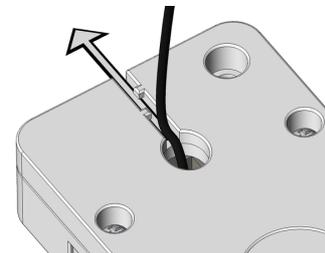


The spindle must be inserted between a minimum of 7 mm and a maximum of 12 mm inside the lock.

WARNING: do not insert the spindle up to the lid of the lock, but allow some margin to allow the movement of the cable and to prevent any damage.

Make sure the cable is fully inserted and locked in the groove of the spindle. Remove any cutting residues of the spindle that could damage the cable. Insert the cable connector into the square hole present in the bottom of the lock and make it come out from the opposite side.

Secure the cable, avoiding to stretch it too much, inside the specific groove on the lock cover and fix the lock using the appropriate mounting screws.



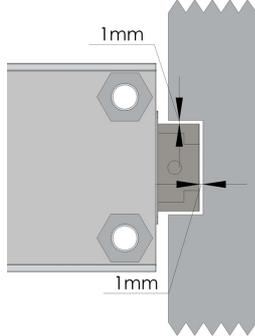
Insert the keypad cable into the lock connector "ENT", making sure it is fully inserted and locked. Any alarm interface or battery holder will be connected instead to the lock connector "BAT". To remove the cable, bring the connector upwards and carefully pull it out.

MotorLock and Motor SpringBolt locks installation instructions

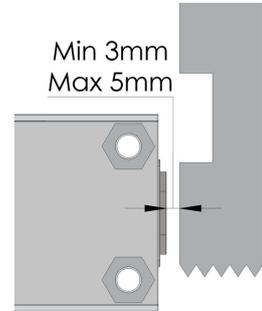
MotorLock and Motor SpringBolt locks are locks with, respectively, a motor driven dead bolt and a motor driven spring bolt, whose block is carried out by a motor. By entering a valid code, the motor retracts the bolt which remains in the open position for about 8 seconds and then automatically returns to the locked position.

If the manual relocking option is selected, the bolt closes by pressing and holding the button .

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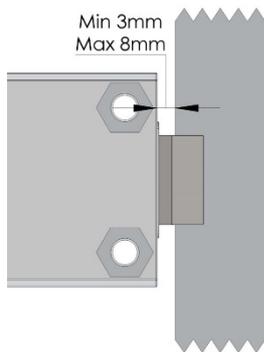


In the locked position, there should be approximately 1 mm clearance between the lock bolt and the cavity in the blocking bar of the boltwork. The bolt must be able to move freely without applying any force on it.



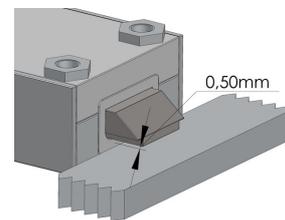
In open position, there should be a minimum of 3mm and maximum of 5 mm clearance between the lock bolt and the blocking bar of the boltwork.

The spring-latch version (Motor SpringBolt) is specially designed to ensure self locking when the door closes.



The distance between the SpringBolt lock and the locking edge must be between a minimum of 3 mm and a maximum of 8 mm.

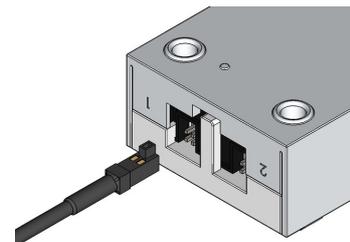
When locked, there must be a 0.5mm gap between lock bolt and locking surface.



Insert the keypad cable into the lock connector "1", making sure it is fully inserted and locked.

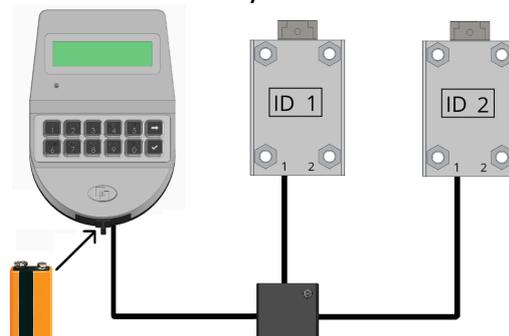
Any alarm interface or battery holder will be connected to the lock connector "2".

To remove the cable, bring the connector upwards and carefully pull it out.

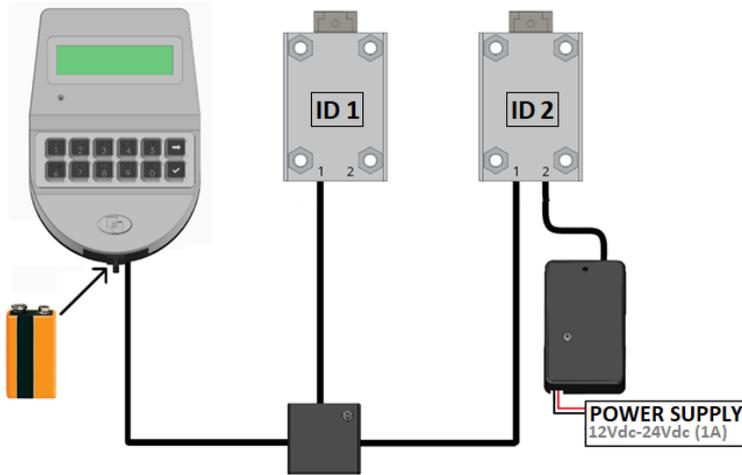


Connection examples

- Double lock connection with 9V battery.

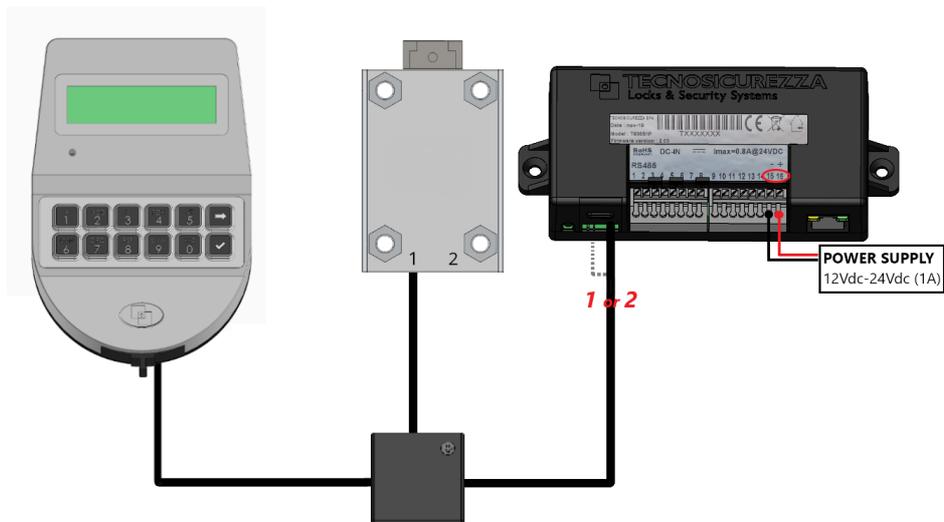


- Double lock connection with external power supply (T6005/W interface).

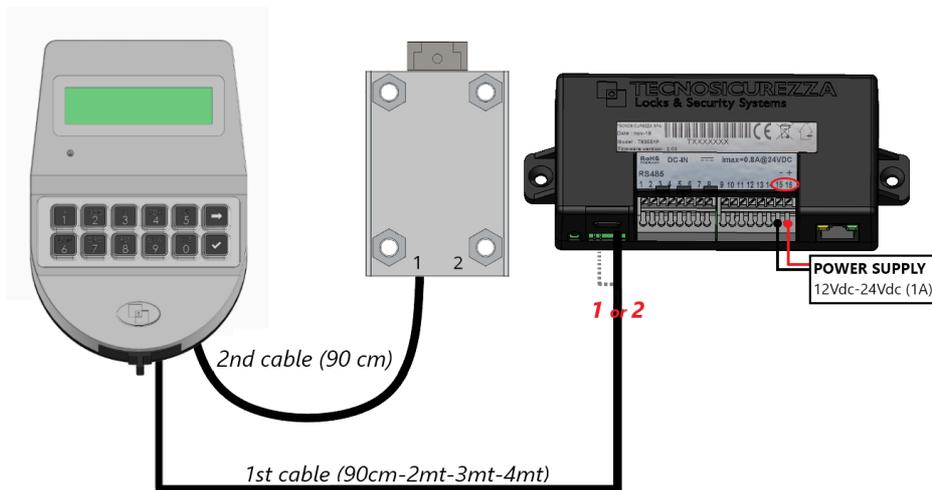


- I/O Interface connection examples (T9355 or T9355/IP)

1)

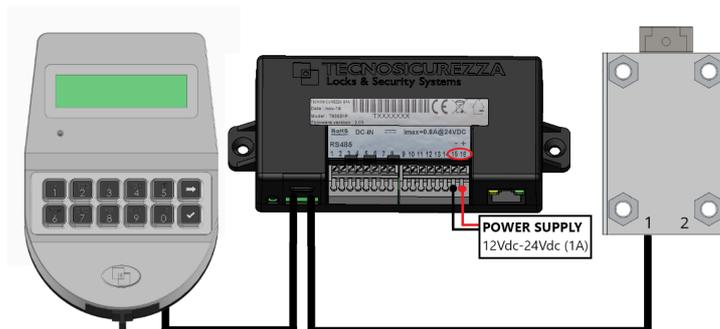


2)



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3)



Functional tests

To be carried out with the door open.

MEMBRANE TEST:

Press and hold the button 5 to access the "Membrane Test" function.

Press slowly all the buttons according to the sequence shown on the display.

ELECTRONIC / MECHANICAL TEST:

OPENING:

Enter the opening code (standard manager code 123456). The display will show "open" and the green LED will light up.

With RotoBolt and MotorLock locks, turn the safe door handle to the open position.

With StraightBolt and SpringBolt locks, rotate the knob or handle according to the type of installation and move the lock bolt to the open position.

For all types of locks the bolt must be able to move freely.

LOCKING:

With RotoBolt and MotorLock locks, turn the safe door handle to the locked position. Lock bolt must fully extend and ensure locking.

With MotorLock locks with manual relocking, turn the door handle towards the locked position and press the button .

Lock bolt must fully extend and ensure locking.

With StraightBolt lock, rotate the knob or handle according to the type of installation and move the lock bolt to the locked position..

Lock bolt must fully extend and ensure locking.

Make sure that there is free space in all directions around the bolt when the movement is brought to the locked position.

Repeat the functional test several times before closing the safe door.

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

CE declarations

DICHIARAZIONE CE DI CONFORMITA'
CE DECLARATION OF CONFORMITY

TechMaster: T953-x

Il sottoscritto Franco Miller, in veste di Presidente CdA e Legale Rappresentante della società **Tecnosicurezza s.r.l.**, con sede in San Giovanni Lupatoto (Verona) Via Cesare Battisti 276, dichiara sotto la propria responsabilità, che il suddetto prodotto soddisfa per progettazione e costruzione i requisiti delle direttive di: compatibilità elettromagnetica **2014/30/EU** e RoHS 2 **2011/65/EU**. La conformità è stata verificata con l'ausilio delle seguenti norme armonizzate:

EN 61000-6-3, EN50130-4, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-11, EN 61000-6-1, EN55022

The undersigned Mr Franco Miller as Chairman and Legal Representative of the company **Tecnosicurezza s.r.l.**, located in San Giovanni Lupatoto (Verona) Via Cesare Battisti 276, declare herewith on our own responsibility that the above-mentioned product meets the requirements of the **2011/65/EU** RoHS 2, **2014/39/EU** Electromagnetic Compatibility for what concerns engineering and construction. Conformity has been controlled with the aid of the following harmonized standards:

EN 61000-6-3, EN50130-4, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-11, EN 61000-6-1, EN55022

Verona - Italy, 02/10/2018

Franco Miller
Board Chairman

Tecnosicurezza s.r.l.


(firma, signature)

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DICHIARAZIONE CE DI CONFORMITA' CE DECLARATION OF CONFORMITY

TechMaster: T53-xx

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Verona - Italy, 02/10/2018

Franco Miller
Board Chairman

Tecnosicurezza s.r.l.


(firma, signature)

**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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