AMADEO i-Lock

Your innovative key card system for hotels

TECHNICAL DATA SHEET

AMADEO i-Lock

A PERFECT FIT FOR ANY HOTEL

- Easy upgrade, fits on existing mortise locks without door rework

- Flexible design, choose your own handle & finish

- Next generation contactless technology; superior reading quality & high security encryption

Fig: i-Lock in XS short escutcheon stainless steel version—outside

INNOVATION AND FUNCTION:

After intensive research and development activities, AMADEO was able to find a new and effective way to secure doors and gates.

We redefined the term „electronic lock" and proudly present the result of this research:
the patented "i-Lock" system. The i-Lock is an electronic shield, which can be configured to a comfort or security fitting, using various lever handles, and corresponds entirely to the EN50133 access standard.

Up to now the battery powered electronic access control was left to the manufacturer of the fitting, lock and cylinder alone. The results were therefore full of compromises. Individual market desires could not be realised. The products were dependent on the manufacturer and therefore on the lock or fitting. There was no universal solution until now.

The patented concept is what makes the i-Lock system unique:

The system is executed as an electronic shield, and independant from the mortise lock as well as from the fitting.

Fig: i-Lock in LS long escutcheon golden look version—outside

Fig: i-Lock in XS short escutcheon ALLEGRO version—inside

Wireless Online

AMADEO Systems - Wireless Online System

The AMADEO Systems wireless solution is ideal for properties seeking the ultimate in security and maximizing operational efficiency. The wireless online system offers a two-way communication between the front desk and the AMADEO Systems electronic locks. It enables staff to receive notifications or alerts from the locks to a server, an email address. The system can also communicate events that occur at the locks to third party devices or systems for greater flexibility and control options.

• Radio Frequency (RF) communications at 868 MHz, which is globally license-free

• Secure networking (128 AES encryption)

• Self-forming networks

- Large-scale properties

- Asymmetric link handling network stability even when nodes are within close proximity

- Extended battery life with sleep and special wake up functions

- Online reports like alerts and maintenance information's (battery status, tamper switch etc. are stored in the SQL database and can be send via email to the security guard

- Online recipients as it occurs (by email, SMS, and web services)

• mobile MASTERKES solution

Clever room management with integration with AMADEO Systems

entering a room becomes a custom experience, tailored to the unique preferences of each person. For example, the lights adjust to the appropriate level, the television turns on with the appropriate channel and volume level, the powered blinds open or close, and the temperature adjusts – all to the professional building automation system can be optional linked with the wireless Online link to AMADEO System. The exchange of the current door status our Database can be linked to any other Building automation system.

How does it work?

A send lock commands direct from Pc to the lock

Audit trail: System logs wireless all openings nearly in real-time and store it into the system.

Remote access grant: Send a message to the lock—to accept the new card.

KeyCard Replacement: Send a „ Canceling Card" to all locks. To block the actual card.

Revalidation: update the access grants to all relevant locks and extend the grant of the card.

Receive Lock alerts and notifications via email and visual information on the pc

Door Alert: Door lock notifies staff when door has been left in an unsecure position.

Low Battery: low battery indication is sent to the server that produces periodic reports for maintenance staff.

Anti tamper alert: door lock notifies when the cover is removed.

DND and MUR Service Information: door lock notifies the current status of the room (guest in room, make up room)

Wireless Online

The i-Lock and the wireless i-Lock has the same looking. The wireless technology is integrated. The reader antenna has the wireless Online environment on board and can be easily upgraded from the pure Offline to the wireless Online system by changing the reader antenna.

Wireless Online i-Lock

Reader antenna

Wireless wall reader

4 cm reading distance
and about 20 meters radius wifi range

Handheld:

Wireless Online

The wireless Online accessories

AMADEO Systems Access point:

General function characteristics:

- Bi-directional (two-way) non-collision communication in range of 868 MHz

- Output power of 10mW with possibility of flexible control

- Adjustable sensitivity of reader

- Power and Communication way by using one cable (RS-485 or LAN + power supply)

- Optional indication of reading and powering by using LED

- Optionally using as wireless connection path (e.g. installation environment with no way to use cable connection)
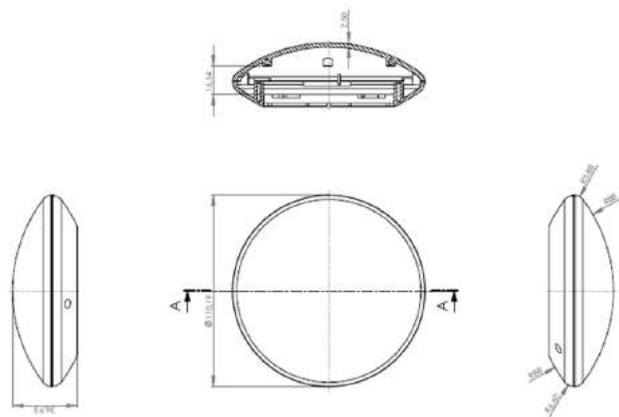
General parameters
Communication range: 50m (depends on installation environment)
Unique serial number: 6B
Internal memory: 1024B
Communication interface: LAN, RS-485, open collector

Electrical parameters
Power supply voltage: 12-42V DC
Current consumption: 40 mA (depends on power supply voltage and configuration)
Frequency: 868 - 870 MHz divided into the sub-ranges
Modulation: GFSK
Data rate: 1,2 – 500 kBaud
Output power: up to 10 dBm
Reader sensitivity: -111 dBm @ 1,2 kBaud

Mechanical parameters
Dimensions: Ø110 x 37 mm
Weight: 60 g
Material: ABS

SYSTEM STRUCTURE:

The heart oft he system is the electronic base plate. This base plate implies all elements of security, like the RFID reading antenna, the coupling, the battery including the necessary logic of the
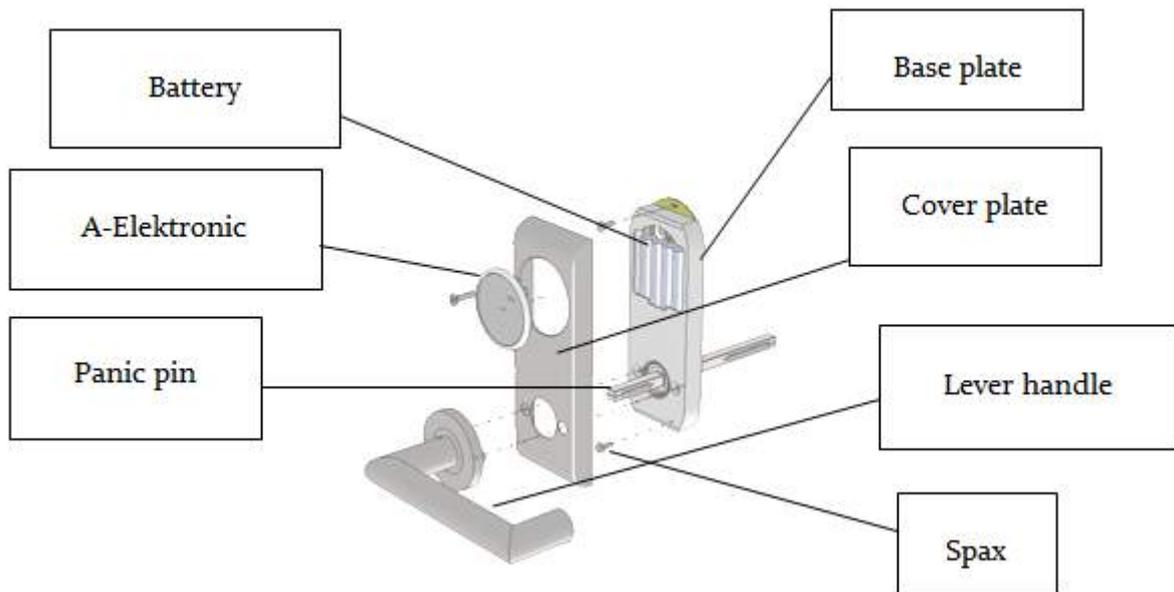

Fig.: System structure

The base plate is covered with a modern designed decor plate, and in that also secured against manipulation and sabotage. The decor plate is available as accessory in different norms, colours and sizes.

The plate has a divided pin (panic pin) and only clutches outside lever handle in case of a valid opening. The inside lever handle is always in mechanical contact and therefore allows to exit all the time (so-called panic function, this requires the right mortise lock).

The decor plate as well as the base plate have

i-Lock hardware basics: internal box, RFID-Reader

and exterior escutcheon in stainless steel

i-Lock HARDWARE CONFIGURATIONS:

The latest innovation in Key Card Locks: Whether you have only a few rooms, or thousands of rooms - the i-Lock from AMADEO is always the right choice. The i-Lock is well designed and at the same time very user friendly. Your guests will appreciate the extra comfort and security in your hotel, and you and your staff can freely manage the locking plan.
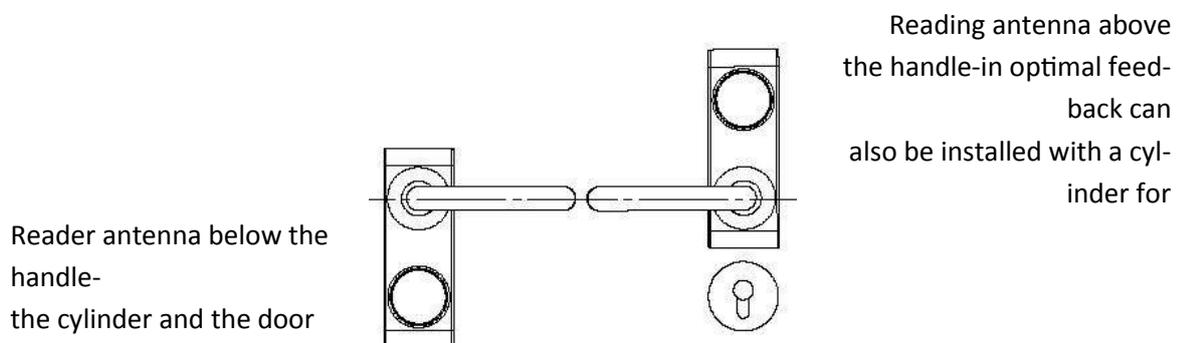
The i-Lock is available in three configurations:

SOLO, ALLEGRO, FORTE

and is available as either a short-escutcheon (XS), or a long escutcheon (LS), with or without cylinder opening. The unique patented concept of i-Lock is that it is both handle and mortise lock type independent (see technical specifications). The lock uses the latest Mifare reader technology and uses a unique multi LED, multi-color ring around the reader to show the status of the lock.

The i-Lock is fully upgradeable, providing you a secure investment. The lock will not get outdated and can always be updated electronically. The lock has a secure (AES 128 bit encryption) connection for emergency opening as well as external power supply.

i-Lock MOUNTING POSITIONS:

The i-Lock can be mounted in any desired position: in horizontal, vertical justification or even upside down on the door, to fit the required mounting situation. The patented coupling system is

Reading antenna above the handle-in optimal feedback can
also be installed with a cylinder for

Reader antenna below the handle-
the cylinder and the door

ST43 i-Lock **SOLO**:

electronic external escutcheon without handle

The i-Lock in the configuration **SOLO**: Standard is ideal for a quick retrofit of existing mechanical escutcheons in almost any door fitting situation. The uniqueness of this lock configuration is that it can be installed in any direction, vertically or horizontally, or with the reader located above or below the door handles. Anything is possible.

• RFID technology
• Short or long-escutcheon
• Finish: Stainless steel or golden
• Card reader for Mifare

Scope of supply:
• Electronic i-Lock shield
• reader & electronics
• battery pack 4 AAA lithium batteries,
• Screw set, spindle set, standard read-
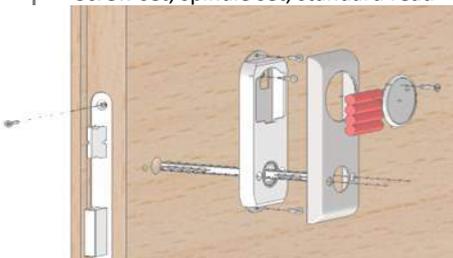
ST43 i-Lock **ALLEGRO** :

electronic external and internal escutcheon with handle,

The **ALLEGRO** configuration fits nearly all mortise locks. Its interior escutcheon provides you with an electronic DND and MUR function. It is combined with flat design rosette handles designed in harmony with the flat reader.

An extra battery set can also be installed in the interior escutcheon giving the lock a double battery live span. (approx. -6 years or 120,000 openings).

The Standard installation of an external escutcheon simplifies retrofitting of nearly all types of doors. The solo is the most compact configuration and simplest form of battery powered access control. This lock retrofits your mechanical lock into a high-tech access control system in minutes.

The long escutcheon version LS has the option to install a mechanical emergency opening system (hard key and cylinder) and covers all existing bore holes in the door. The LS version is perfect for retrofitting your existing electronic key card system.
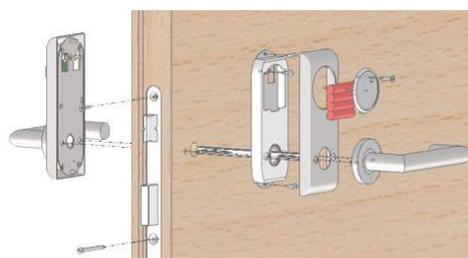
ST43 i-Lock **FORTE**:

electronic external escutcheon with handle and mortise lock

Inside: handle, half cylinder knob

FORTE - sense of safety and security for your guests: Forte is the configuration for hotels with the highest standards in terms of safety and comfort.

It consists of an external escutcheon, a panic mortise lock with integrated privacy function, a flat design rosette handle set and a half cylinder knob on the inside to activate the deadbolt and the privacy function.

On the inside, only the inner handle and the half cylinder knob is installed, corresponding to todays design requirements ("small is beautiful"). i-Lock Forte meets the highest technical requirements.
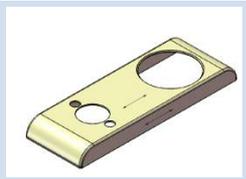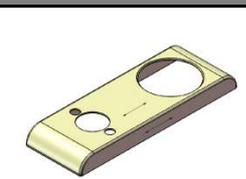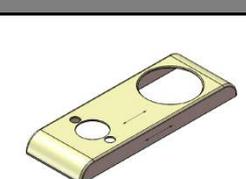
All Forte configurations are optionally available with a mechanical emergency opening. Another option is the interior escutcheon with a second battery set. There are 3 different mortise locks available depending on the requirements.

Scope of supply:

Technical Data Sheet // ST48 Elite
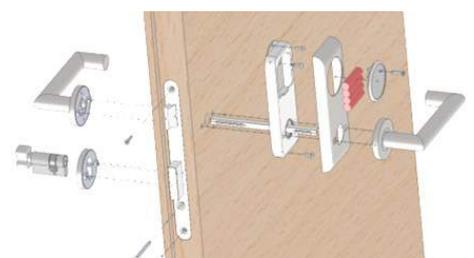
TECHNICAL DETAILS:

HARDWARE CONFIGURATION:

i-Lock execution	Outside	Inside	Lever	Lock	
FORTE XS	Short plate	No plate	UR lever	Hotel lock	
FORTE LS	Long plate	No plate	UR lever	Hotel lock	
ALLEGRO XS	Short plate	Short plate	UR lever	Any lock	
ALLEGRO LS	Long plate	Long plate	UR lever	Any lock	
SOLO XS	Short plate	-	-	-	
SOLO LS	Long plate	-	-	-	

TECHNICAL DETAILS:

SHORT PLATE TECHNICAL DATA

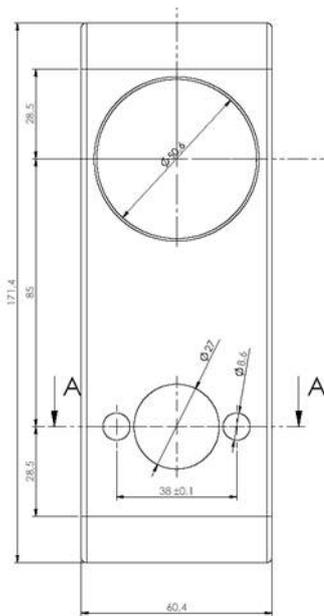## LONG PLATE TECHNICAL DATA

Size of decor plates 171 x 60,4 x 15 mm

Material: Stainless Steeel

Surface: polished or fine honed

Optional: PVD surface for MS polished, MS matt, powder coating

Weight: 200g

Size of decor plates: 264 x60,4 x 15 mm

Material: Stainless Steel

Surface: polished or fine honed

Optional PVD surface for MS polished, MS matt, powder coating

Weight: 200 g

(X) Size is:

DIN"72"   : 72 mm

EURO "85"   : 85 mm

ÖNORM"88"   : 88 mm

The short plate coveres the base plate and in that protects the mechatronics of the i-Lock. The design is modern and simple, and only depend-

The Long plate covers the base plate and and in that protects the mechatronik of the i-Lock. The design is modern and simple, and only dependant on the connecting dimensions of the base plate. The lever mountung drills are standarded: 38 x 8,6 x 1,2 mm
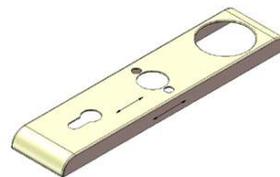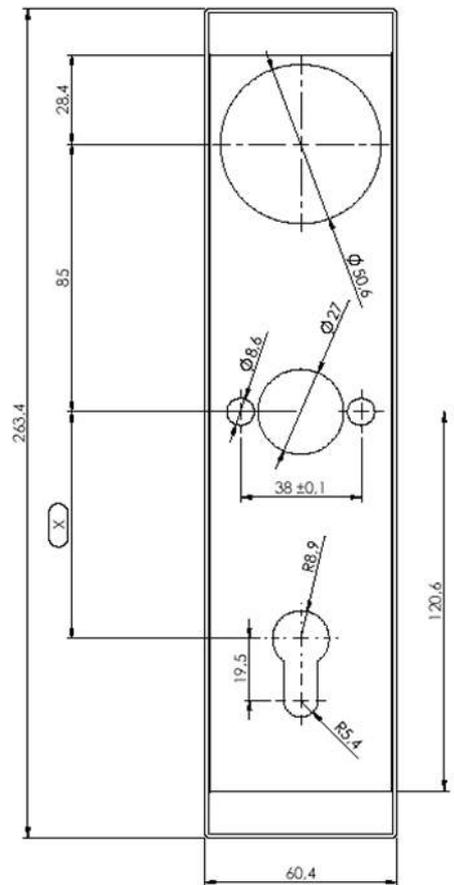
TECHNICAL DETAILS:

TECHNICAL DATA BASE PLATE

The i-Lock has an anti-temper detector and only clutches the outer lever in case of an authorized opening. The inner lever is always in purely mechanical connection, and allows exit at all times (so called panic function, that provides a corresponding mortise lock).

The decor plate, as well as the i-Lock, have the standard drillings for a torque-proof stored rosette fitting.

The i-Lock back plate is screwed to the door with spax screws. A decor plate is put over the i-Lock. With passing through screws for fixing the lever, the outside is screwed to the inside and in that secured against sabotage.

The i-Lock back plate coveres all underlying door recesses or drillings.
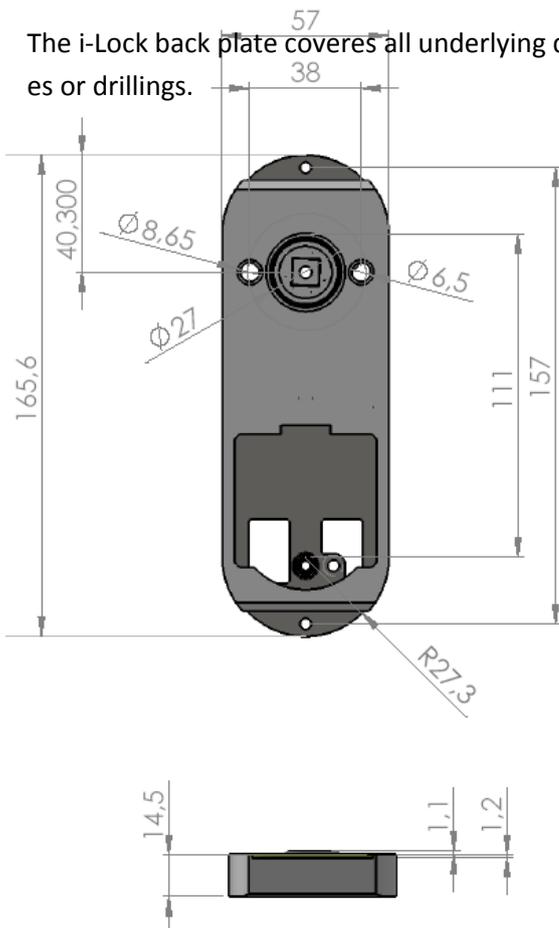
TECHNICAL DATA BACK PLATE

The i-Lock back plate has the task to connect the i-Lock to the construction of the door.

The i-Lock back plate is available in various designs and matches the old magnet card fittings.

Pay attention to this when you are doing your order of the particular system.

i-Lock back plate
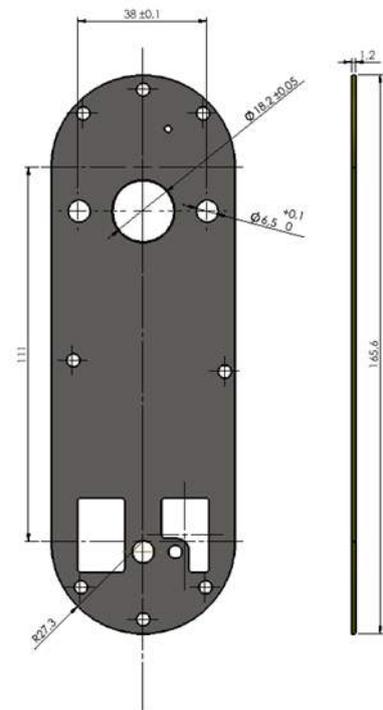
TECHNICAL DETAILS:

Door Drilling preparation:

38

Ø9

Ø25

X

For visible cylinder :

X = 72mm
X= 85 mm
X= 88 mm
X= 92 mm
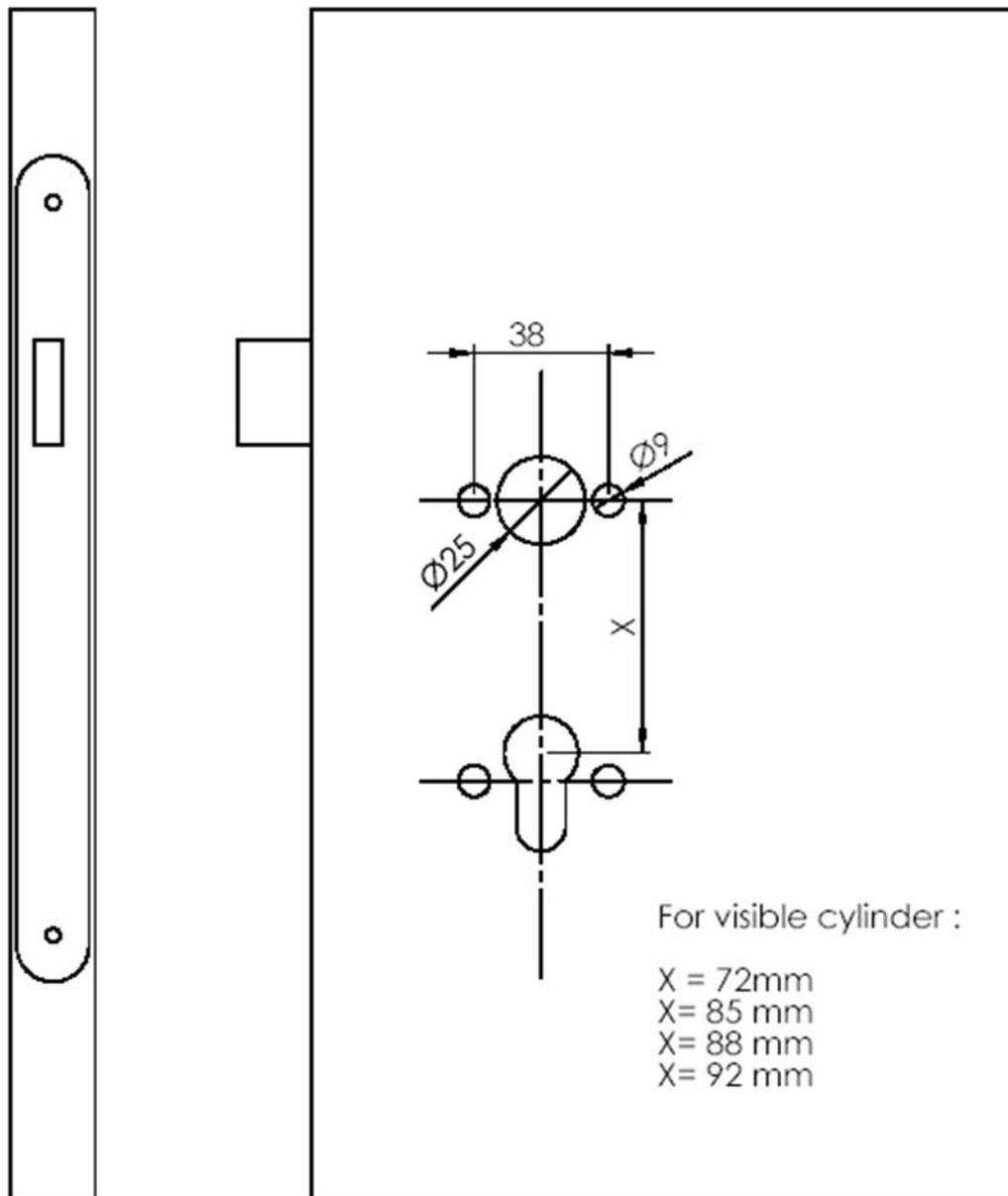
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