Exma Compact

Motor striking plate.
Installation & function.

Version 202309 English

Content

Product description

Exma Compact is a motor striking plate that offers a stable locking device and meets the toughest requirements in SS-EN 14846:2008 regarding ”breaking strength and drill protection”(4.9). It is designed to function securely in difficult environments over a long period and tolerates a level of wear far exceeding the number of locking cycles that apply in this lock standard (see below). In installations where there is a requirement for protection against electronic manipulation Exma Rapid together with control module central unit A1D and door indication must be used.

Certification codes

4.3	4.4	4.5	4.6	4.7
Category of use	Durability and load on latchbolt	Door mass and closing force	Suitability for use on fire/smoke doors	Safety
3	C	0	0	0

4.8	4.9	4.10	4.11
Corrosion resistance, temperature and humidity	Security and drill resistance	Security electrical function	Security electrical manipulation
M	5	1	0

Mounting of the motor striking plate is simple because no separate control unit is required and installation takes place in the door frame without frame transfer or cable routing to the door. Exma Compact can be used together with most insurance company approved dead bolt (with or without latch bolt) and hook bolt locks.
All the following components meet the RoHS directive and electronic components are covered by the WEEE directive.

Motor striking plate Exma Compact
- Motor striking plate with selectable type of outer housing.
- The striking plate is made of stainless steel.
- The striking plate has a hardened lock mechanism that is operated by a motor.
- Locking and opening times is approx 0.3 sec.
- Bolt sensor, placed in the striking plate bolt opening senses when the lock bolt is in place and, together with the door position sensor, sends an impulse to the striking plate to lock.

Outer housing
Available in different versions adapted for most locks available on the market.
When ordering Exma Compact the outer housing variant must be stated. For outer housing variant see pages 16-17.

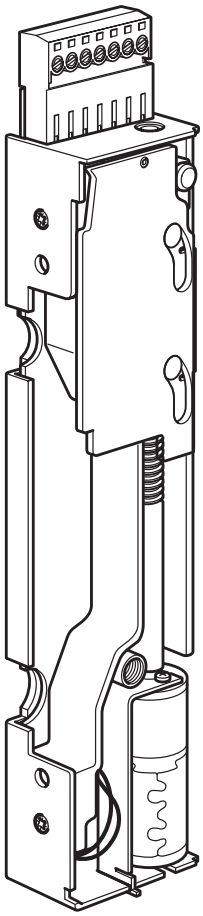
Extra accessory with short function description:

Spring return handle (see page 13)
- Installed on the lock like a normal lever and contains a spring that ensures that the lock bolt is always locked out. With a spring lever installed, there is a function identical to a normal latch lock, e.g. simple and easy outward passage with automatic locking.

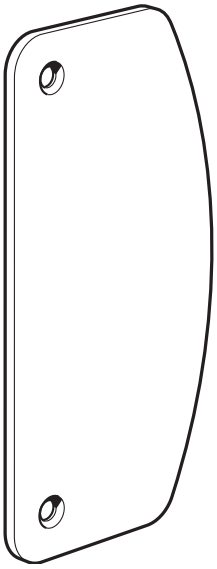
Turning limiter (see page 13)
- Installed as a cylinder extender behind the lock cylinder. The rotation limiter makes it impossible to remove the key without the lock being locked. In those cases where the door is to be left unlocked, this is done electrically.

Other
- Several different types of protection cover are available as accessories (see product catalogue).
- Exma Connection Box simplifies your installation and acts as a demarcation point.

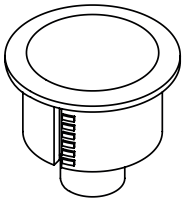
Contents of package
Technical specifications



Exma Compact
motor striking plate
without outer housing.



Protection cover.



Door position
sensor.

Package
Exma Compact lis supplied in a standard version with or without preinstalled outer housing. The image below is without a preinstalled outer housing. The outer housing must be adapted to the lock case and door (see pages 6 and 7).

Check that the following materials are in the packaging:

- Exma Compact motor striking plate without outer housing, incl. 7 x mounting screws for installing staple (2 x M4×8 stainless steel, 4 x M2×4 stainless steel, 1 x M6×12 stainless steel).
- Protection cover standard version.
- Door position sensor (magnetic switch).
- Installationcable. Order separately per meter, artikelno 786633

TECHNICAL SPECIFICATIONS COMPACT	
Certificate	SS-EN14846 nr. 20-515, SSF 3522: Edition 2, Class 1B nr. 21-26, CPR nr. 18-404
Drive voltage	24-30V DC +- 10% . Filtered and stabilized DC voltage
Power consumption at rest	85 mA
Power consumption during operation	300 mA
Power consumption at engine start (50 mS)	500mA
Temperature	-20°C to +60°C
Locking time	0,3 sec
Climate tested 240 hours in a salt fog chamber	Approved
Material	Stainless / zinc
Breaking hold strenght in woodframe	Grade 3
Number of lock cycles during normal operation	> 1000 000
Opening signal	Relay close or voltage
Size (BxHxD mm)	26×180×34
Size with outer housing (BxHxD mm)	39×245×39
Breaking capacity relay	500mA , 50 Volt

Undertanding the naming of the frontplate

Exma Compact is usually supplied with a preinstalled frontplate. There are several different models of frontplates available, adapted for most lock cases on the market. If necessary this outer housing can be replaced by another model at one of Exmas retailers.

The design of the end plate can be seen from the article number and is read according to below:

EV245-13H

The first letters in the part number indicate what type of lock case the striking plate suits.
R = Deadbolt locks (with or without latch bolt)
H = Hook bolt locks (with or without latch bolt)
EV = ASSA Evolution/ Connect dead bolt and latch bolt
P = ASSA 710 and 711
X = ASSA 511

The first three digits indicate the total length of the striking plate in mm.

Indicates the lip width in mm.

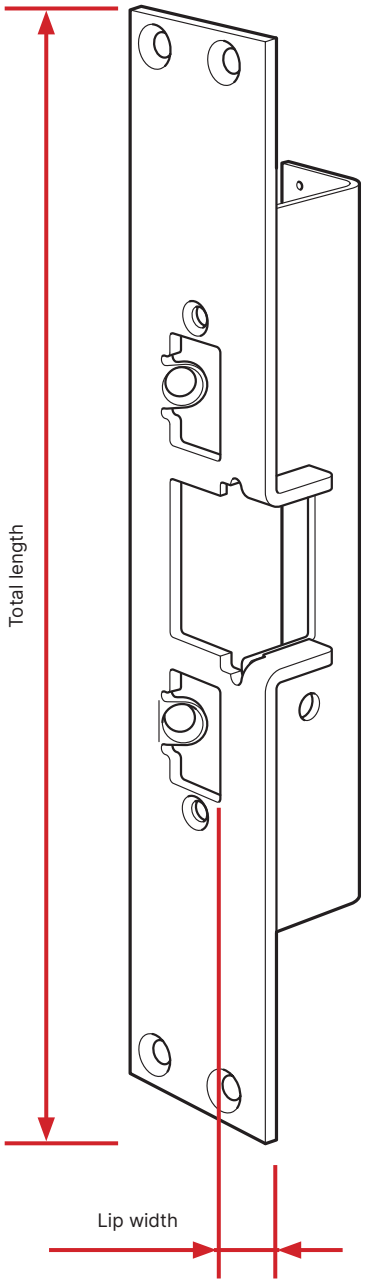
Indicates if the striking plate is suitable for left (V) or right (H) hand suspended doors. If V or H are missing from the part num-ber, this means that the striking plate can be turned and is suitable for both left and right hand suspended doors.

R245-15-15

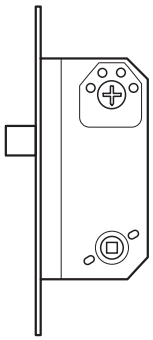
R245/15/15 means that the striking plate is suitable for a dead bolt lock (with or without latch bolt), has a 15 mm lip width and a bevel striking plate with 15 mm bevel. The striking plate can be turned and is suitable for both left and right hand hung doors.

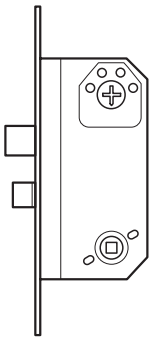
Indicates that the striking plate is a bevelled striking plate and the bevel di-mension (e.g. 15 = 15mm angle).

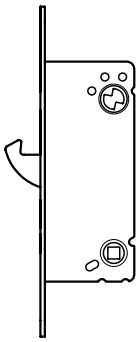
No H or V indicates that the striking plate can be turned and is suitable for both left and right hand suspended doors.

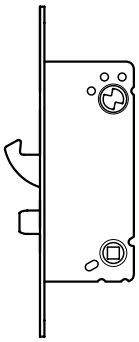


Compatible frontplate to different lock types

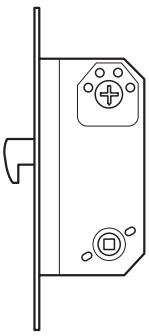


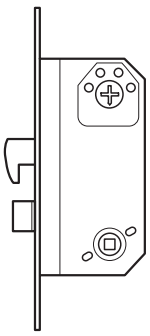


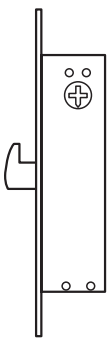




* Corresponding EV frontplates also available for lock case ASSA 710 and ASSA 710/711 (name end with P) and Assa 511 (name end with X)







Outer housings for deadbolt locks (with or without latch bolt)

Total length	Article number
245 mm	R245-13, R245-16, R245-15-15, R245-15-26
410 mm	R410-13V, R410-13H

Outer housings for ASSA Evolution and Connect lock cases

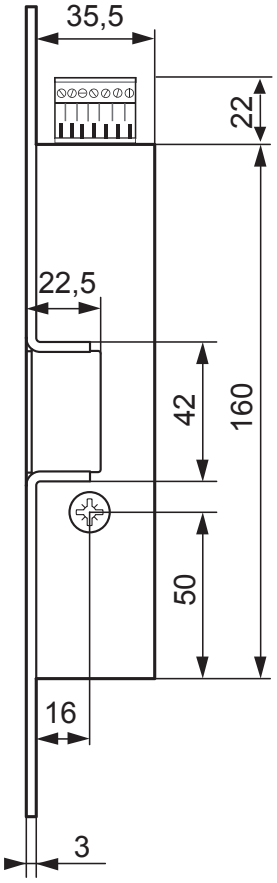
Total length	Article number
245 mm	EV245-13V, EV245-13H EV245-16-15V, EV245-16-15H, EV245-15-26V, EV245-15-26H

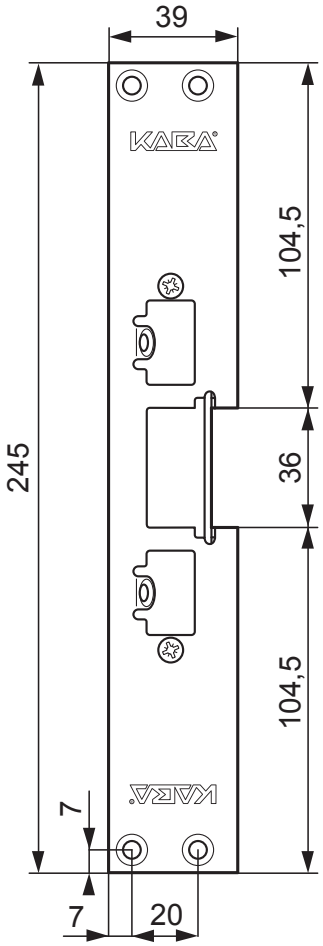
Outer housings for hook bolt locks

Total length	Article number
245 mm	H245-13V, H245-13H H245-16V, H245-16H
410 mm	H410-13V, H410-13H

Note! When installing together with ASSA 13787 narrow profile lock, the left hand version should be used for right hand hung doors and the right hand version used for left hand hung doors. E.g. H245-13V must be used for right-hand hung doors and H245-13H must be used for left-hand hung doors.

Regarding frontplate dimensions



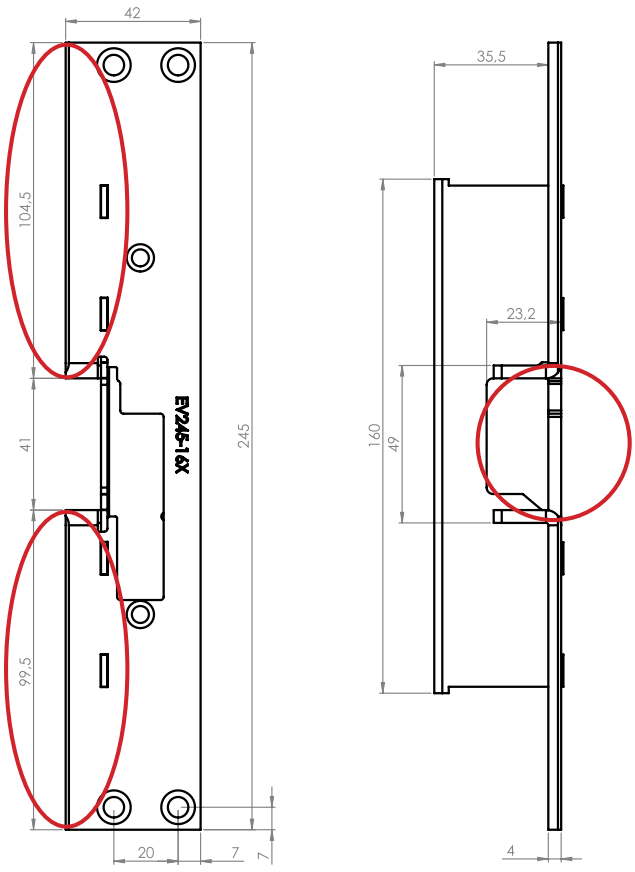


Recesses in the door frame must be at least 200 mm in height, centered from the control opening, this to accommodate the screw terminal and cable connections.The depth of the recess must be at least 39 mm if the post is folded in and at least 36 mm if mounted externally the door frame.

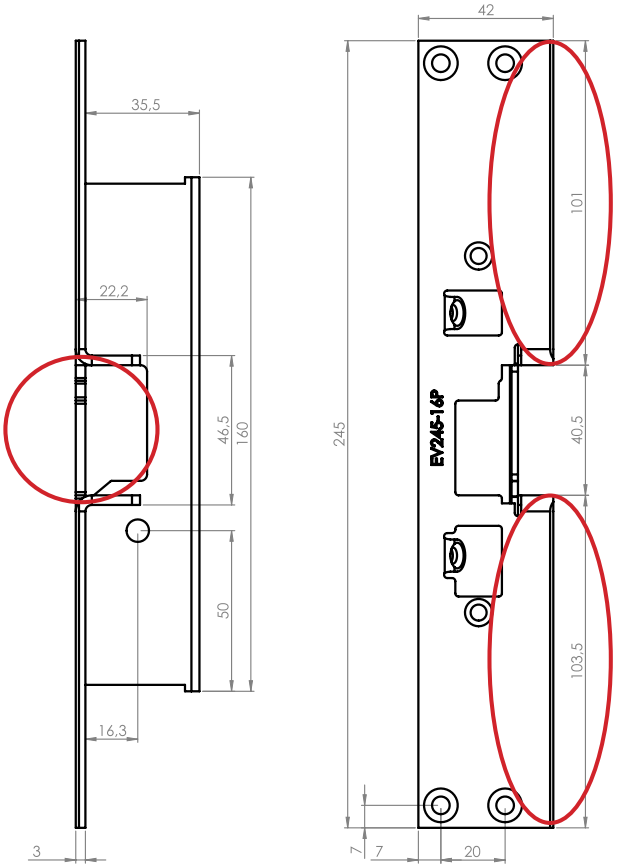
The dimensional sketch shows Exma Compact with frontplate R245-13 mounted. For dimension sketches of other frontplates or frontplates for different door profiles, contact Exma.

Dimensions P- and X-frontplate

X-frontplate



P-frontplate

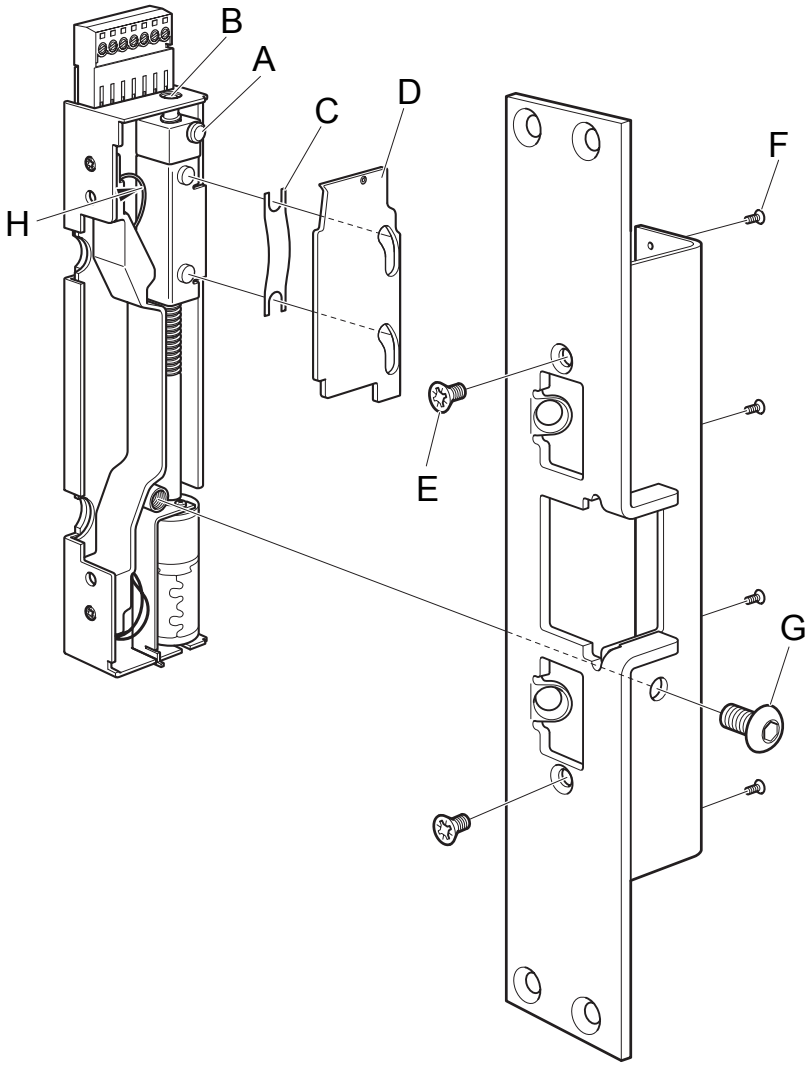


P- and X-frontplate
Note that our P and X frontplates have a variable larger measurement at the rule passage. These P & X posts are not completely symmetrical in height like our standard frontplates. See drawing for reference.

Mounting frontplate on motor strike

- Ensure that the motor unit drive nut/cradle (A) is in the fully open position. If necessary the cradle can be moved in the motor shaft screw track using a screwdriver (B).
- Place the blade spring (C) on the cradle rivets as illustrated.
- Then place the blocking plate (D) on the cradle rivets.
- With the blocking plate in this position any frontplate can be installed. Hold the blocking plate in place with your thumb when installing. Angle the outer housing and press the blocking plate into place on the outer housing and then allow the outer housing to slide into position, pressing the blocking plate the whole time. Check that the motor mounting is correctly in position and that no cables are trapped.
- Screw the outer housing into place with the screws provided in the following order: 2 x M4×8 stainless steel (E), 4 x M2×4 stainless steel (F), 1 x M6×12 stainless steel (G)

Note! Only those screws supplied may be used for installation of the outer housing. If other screws are used they can damage the motor striking plate.



Spring return handle function
On delivery the striking plate opens automatically when the lock's bolt disappears from the closed striking plate and the door opens. This function must always be used when the door is equipped with a spring return handle. If this function is not required cut the tab (H) off.

Installation step-by-step

1. Ensure that Exma Compact is supplied with 24V DC stabilised direct current. Incorrect supply voltage can cause serious damage to the motor striking plate. At temperatures lower than -25°C, for example in gates or other exposed environments where cold and moisture can affect the motor striking plate functions, heating foil is recommended to avoid operational stoppages.
2. Check that the correct outer housing is installed on the motor striking plate. The outer housing must be adapted to the lock and door (see pages 6 and 7). Frame sections that are not sealed and can allow water into the profile that may then penetrate the striking plate, must be sealed. Check that the door functions correctly and that the door gap corresponds to the door manufacturer's recommendations. With active double doors a coordinator must be installed to ensure that the double doors close in the correct order.
3. Install Exma Compact in the frame with the lock bolt centred in the striking plate. To maintain optimum strength in the lock joint when mounting in wood frames the long screws must be installed at approx. 60 degree angle (see page 10).
4. SA Cat5 patch cable (twinned pair) can be used as installation cable.
5. Connect the door sensor to the screw terminal. The sensor must be closed when the door is closed. Use the door magnet included in the standard package. Install the part with the screw terminal in a suitable place in the frame and connect the cables to the motor striking plate. Install the magnet part in the door opposite the frame mounted part. Drill a 19 mm hole for each part. The sensitivity range for the magnetic switch is approx 40 mm in a non-magnetic material such as aluminium, stainless steel or wood, and approx 20 mm in magnetic material (steel). If the gap between the door and the frame is too wide, the indication cannot be obtained.
6. Before connecting the power supply, check that the door lock can be unlocked using the key.
7. Switch on the power to the motor striking plate.
8. Ensure that the lock bolt is deployed and check that the striking plate locks when the door is closed.
9. Check that the striking plate opens when the opening signal is sent.
10. If the door rebate does not cover the cut out for the lock bolt in the frame, an protection cover must be installed on the door. This is to avoid the risk of clamping and unnecessary operational stoppages caused by objects being jammed in the mechanism.

Installation together with automatic door controls
If Exma Compact is to be installed with an automatic door control, the opening delay function must be in place and be used in the automatic door control. This is to ensure that Exma Compact has time to open before the automatic door starts.

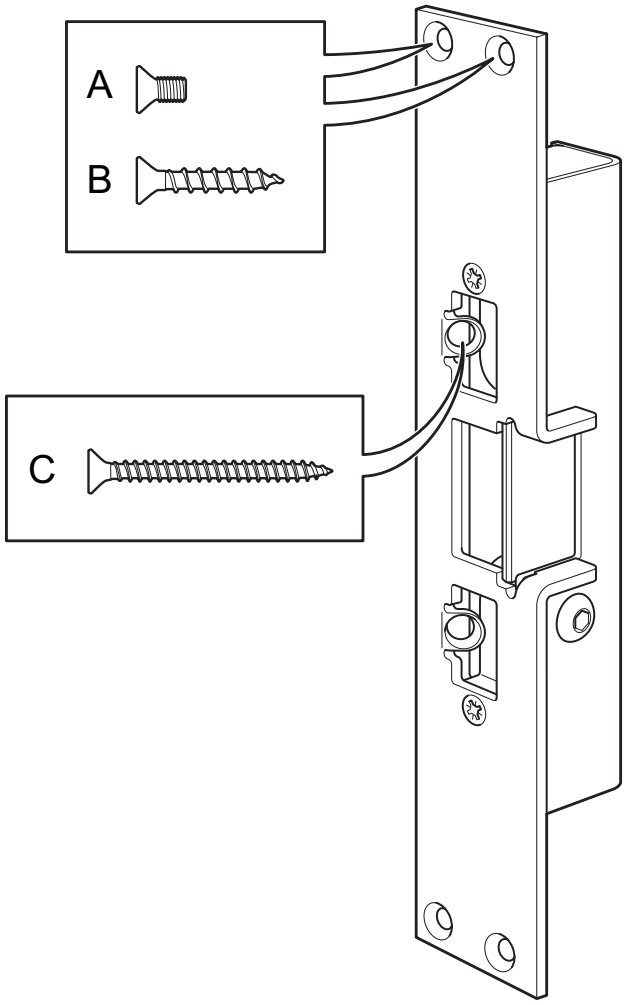
Mounting in doorframe

Installation
Exma Compact is mounted in the door frame in the same way as a normal mechanical or electronic striking plate. Frame sections that are not sealed and can allow water into the profile that may then penetrate the striking plate, must be sealed. To obtain the correct breaking strength the screws supplied must be used as follows.

When mounting in steel or aluminium frames
4 st screws M5×10 (A)

When installing in wood frames
First screw the striking plate into place with 4 x screws (B). Then screw the 2 screws (C) in at a 60° angle.

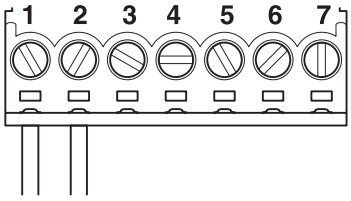
Note! Prepare cut outs and screw holes in the frame, remove wood and metal residue and prepare any paintwork before the striking plate is installed. There must not be any wood or metal residue and/or paint on or inside the striking plate.



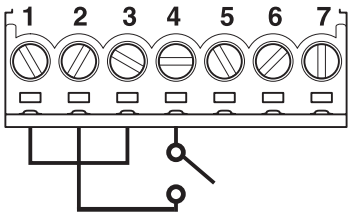
No metall swarf
or grinding dust.
Do not paint

Connecting screw terminal

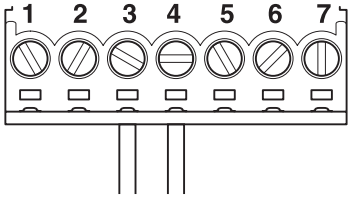
Connecting operating voltage
Connected to terminal 1 = + 24V DC stabilised direct voltage
Connected to terminal 2 = 0V
Note! Ensure that att Exma Compact is supplied with 24V DC stabilised direct current.



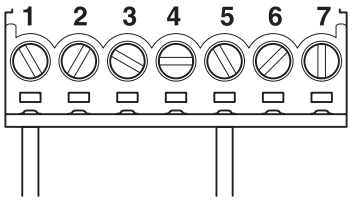
Open signal with closure (e.g. push button)
Connect a bridge between terminals 1 and 3.
Then connect a potential-free closure (e.g. pushbutton) to terminals 2 and 4. If the open signal is to be routed further than 30m this signal should be with voltage (see below).



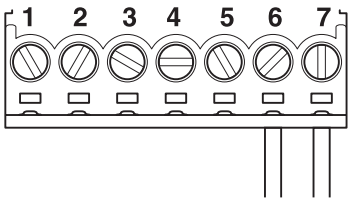
Open signal with voltage
10 - 30V AC/DC can be connected directly to terminal 3 and 4. The connection is polarity dependent.



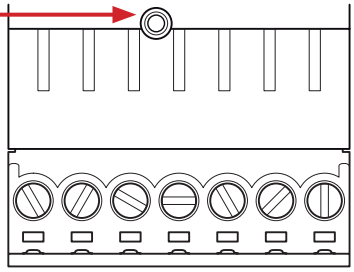
Door position sensor (magnetic switch)
Connected to terminals 1 and 5.
Use the door magnet included in the standard package.



Relay closure when locked
Connected to terminals 6 and 7.
Door closed, bolt in position in locked striking plate.

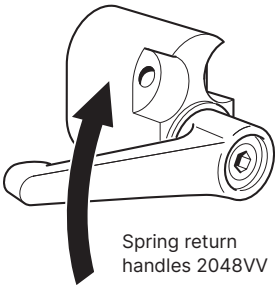


Ground pin

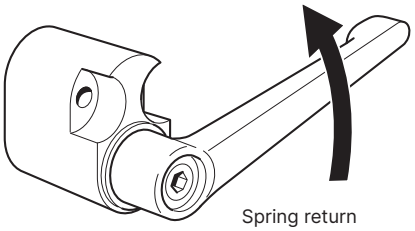


Note! Exma Compact must always be connected to a protective ground. This protects the product against transients. If ground is not connected in the correct way it may result in operational stoppages.

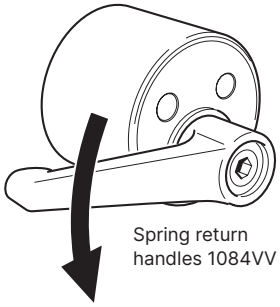
Spring return handles and turning limiters



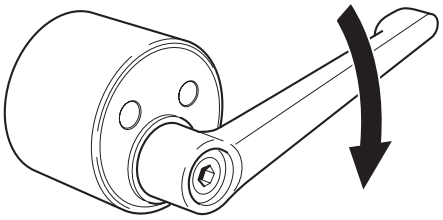
Spring return handles 2048VV



Spring return handles 2048VH



Spring return handles 1084VV



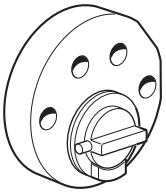
Spring return handles 1084VH

The spring return handles can be used for most approved dead bolt, latch bolt and hook bolt locks. The spring return handle replaces the normal lever and ensures that the lock bolt is automatically locked out directly after an executed opening. 2048VV or 2048VH are used for narrow profile hook locks, 1084VV or 1084VH are used for latch bolt or dead bolt locks. To select right or left handed see the images below.

- The lever can be set to different positions. Spring lever with extended, green lever handle as option.
- It is recommended that pushbuttons are used instead of spring levers for doors with a high usage frequency

Note! A spring lever can only be used with ASSA Evolution/Connect lock case if a blind cylinder is installed. If the locking cylinder is to be installed the Exma 122 spring lever must be used.

Turning limiters 2048VB



Turning limiters 1048VB

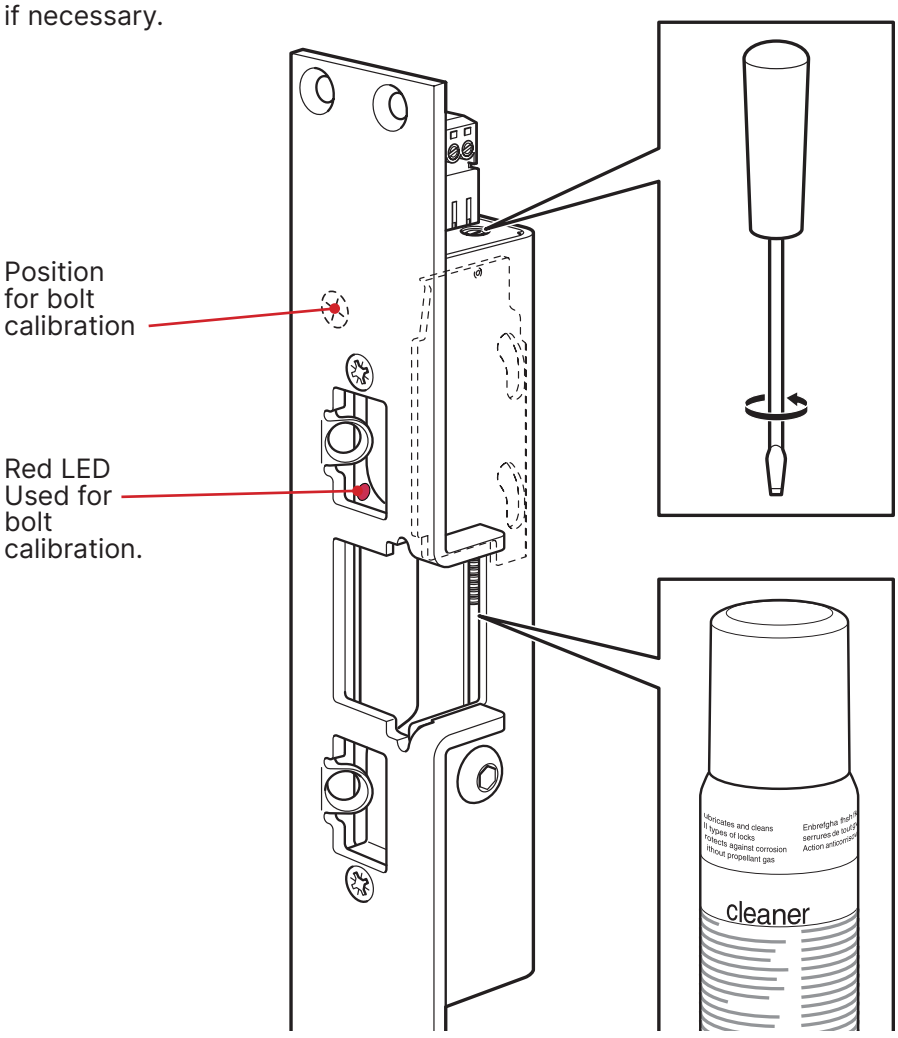
The turning limiter is mounted below the lock cylinder and prevents the key from being removed from the cylinder in the unlocked position. Available in two versions, 1084VB for installation under round cylinders (dead bolt and latch bolt) and 2048VB for installation under oval cylinders (hook bolt locks).

Service and maintenance

Exma Compact is designed to operate in difficult environments for a long time.
It is tested and meets the highest requirements for wear in accordance with SS-EN 14846:2008 (over 200,000 locking cycles). Exma Compact must be lubricated regularly in order to maintain trouble free function. The service intervals are dependent on envi-ronment and user frequency. Lubrication must be performed every 50,000 opening cycles, alternatively at least every seven months or more frequently if necessary.

Lubrication: Lubricate the motor shaft with dormakaba cleaner. This can only be done when the striking plate is the open position. Spray dormakaba cleaner into the guide for the slide, which is visible at the bottom of the bolt opening when the striking plate is in the open position.

Cleaning: Cleaning can become necessary (very dirty product). When cleaning the outer housing must be removed from the striking plate.



Emergency locking
In an emergency the lock mechanism of Exma Compact can be operated using a screwdriver. This may be necessary if the installation has lost power supply or cannot be operated in any other way. Locking is by Exma Compact being unpowered and the screw being screwed anticlockwise.

Lubrication
Lubricate the motor shaft with dormakaba cleaner. This can only be done when the striking plate is the open position. Spray dormakaba cleaner into the guide for the slide, which is visible at the bottom of the bolt opening when the striking plate is in the open position.

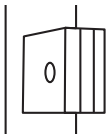
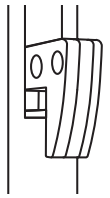
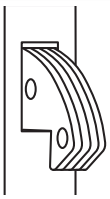
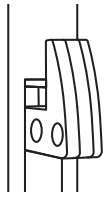
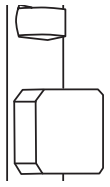
Note! Apply lubricant carefully

Troubleshooting

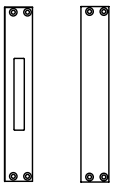
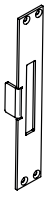
Striking plate not locking.	• Check that the lock bolt is in position and has at least 12 mm engagement in the striking plate. • Check that the door switch position sensor (magnetic switch) is correctly installed, and that the distance between the units is not more than 10mm. • Check that the bolt sensor indicates lock bolt. • Ensure that there is not a continuous open signal.
Striking plate does not open.	• Check that the open signal is correctly obtained.
Striking plate tries to lock but turns and opens again. The attempt is repeated once again.	• Check the physical installation of the striking plate. Striking plate tries to lock but does not reach the end position. This can be caused by the ”side screw” in the striking plate being overtightened, a damaged staple in the striking plate or another physical obstruction to the lock mechanism. • Can also mean poor current consumption (see below) or be to low power supply
Striking plate’s open cycle is longer han 0.3 seconds.	• Current power is lower than 24V DC. Striking plate speed is affected by the operating voltage which should be 24V DC stabilised direct current. • Check that there is no voltage drop in the installation.
Striking plate does not open when the door is opened with the spring lever.	• Check the door position sensor. • Check the spring lever tab inside the striker plate is not cut off. • Check that there is no damage to or impact on the circuit board (in the sealing compound).
The striking plate stops working after a short time. Starts again after the voltage has been disconnected.	• Check that the power supply is 24V DC stabilised direct current • Check that the striking plate is correctly connected to ground. • This protects the striking plate from electrical interference such as ESD (see page 12).
The striking plate does not lock the lock bolt in position or does not lock the lock bolt and the door position sensor is in position.	• Bolt sensing fault - recalibrate the striking plate: 1. Open the door. 2. Hold a piece of metal approx. 7 mm from the circuit board, centred in the bolt hole – at the same time show a magnet at the position for bolt detection (see page 14). A red LED then lights, hold the magnet in place until the LED goes out (in approx 3 secs.). Close the door and check the function is correct. **Note! Bolt sensing is factory set on delivery for best function. Bolt calibration must only be carried out in the event of a problem.**

Choice of frontplate to lock case. Exma motor striking plate Rapid, Compact and Compact BLE.

LOCK TYPE AND OUTER HOUSING COMBINATIONS FOR EXMA MOTOR STRIKING PLATES

Bolt type	Lock dormakaba	Lock Assa	Outer housing left-hinged door	Outer housing right-hinged door
	**Dead bolt** dormakaba DL912 dormakaba DL712 dormakaba DL502* dormakaba DL5029* Kaba/MU 1216 Kaba/MU 1219 Kaba/MU 1241 Kaba/MU 316	Assa 565 Assa 8765 Assa 2588 Assa 8788 Assa 9788	R245/13** R245/16** R245/15/15** R245/15/26** R410/13-V	R245/13** R245/16** R245/15/15** R245/15/26** R410/13-H
	**Hookbolt** dormakaba DL913 dormakaba DL9132 **Hookbolt, narrow profile** dormakaba DL8030* dormakaba DL8039* **Retainer lock narrow profile** Kaba/MU 1248 Kaba/MU 1249	Assa 587 Assa 2587 Assa 7787 Assa 9787	H245/13-V H245/16-V H410/13-H*** H245/20-V	H245/13-H H245/16-H H410/13-V*** H245/20-H
	**Hookbolt** dormakaba DL909 dormakaba DL919 dormakaba DL9197 dormakaba DL7197 dormakaba DL7137 dormakaba DL9192	-	D245/13-V D245/16-V	D245/13-H D245/16-H
	**Narrow profile** dormakaba DL803*	**Narrow profile** Assa 13787	H245/13-H H245/16-H H410/13-V***	H245/13-V H245/16-V H410/13-H***
	-	Abloy LC100	F245/10	F245/10

LOCK TYPE AND OUTER HOUSING COMBINATIONS FOR EXMA MOTOR STRIKING PLATES

Bolt type	Lock dormakaba	Lock Assa	Outer housing left-hinged door	Outer housing right-hinged door
	-	**Hookbolt** Assa 310 Assa 311 Assa 410 Assa 411 Assa 2002	EV245/13-V EV245/16-V EV245/20-V EV245/16/15-V EV245/19/15-V EV245/15/26-V	EV245/13-H EV245/16-H EV245/20-H EV245/16/15-H EV245/19/15-H EV245/15/26-H
	-	Assa 511	EV245-13X-V EV245/16X-V EV245/16/15X-V	EV245-13X-H EV245/16X-H EV245/16/15X-H
	-	Assa 710 Assa 711	EV245/13P-V EV245/16P-V EV245/16/15P-V	EV245/13P-H EV245/16P-H EV245/16/15P-H
	Our blind posts fit all kinds of brands.	Used, for example, during preparatory installation. Blind pole is also available as cover plate plane or with 15 mm angle.	-	-
	Our blind posts fit all kinds of brands.			
	Mechanical pole insert fits all of our mounting posts.	-	-	-

* Locks without latch
** Symmetrical could use for both right and left hanging doors

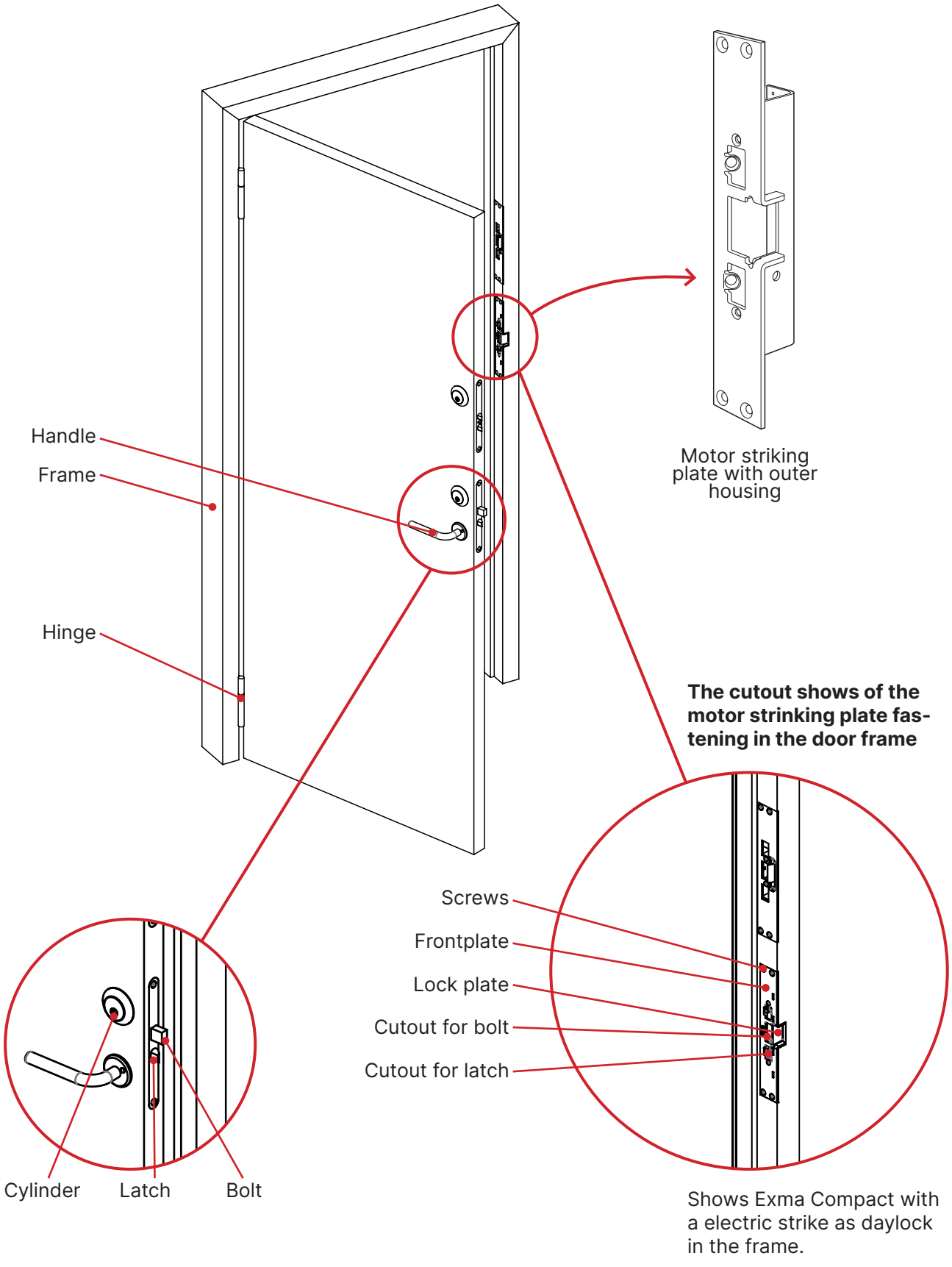
*** Use with locks without latch. Replacement front-plate for old Kaba delta strikes

Explanation:
R = Deadbolt locks (with or without latch bolt)
H = Hook bolt locks (with or without latch bolt)
D = dormakaba hook bolt

EV = Evolution/ Connect hook bolt
P= EV frontplate fits ASSA 710 and 711
V = left
H = right
X= Assa 511

245 or 410 = length mm
245/15 = tongue
245/15/26 = width of angle

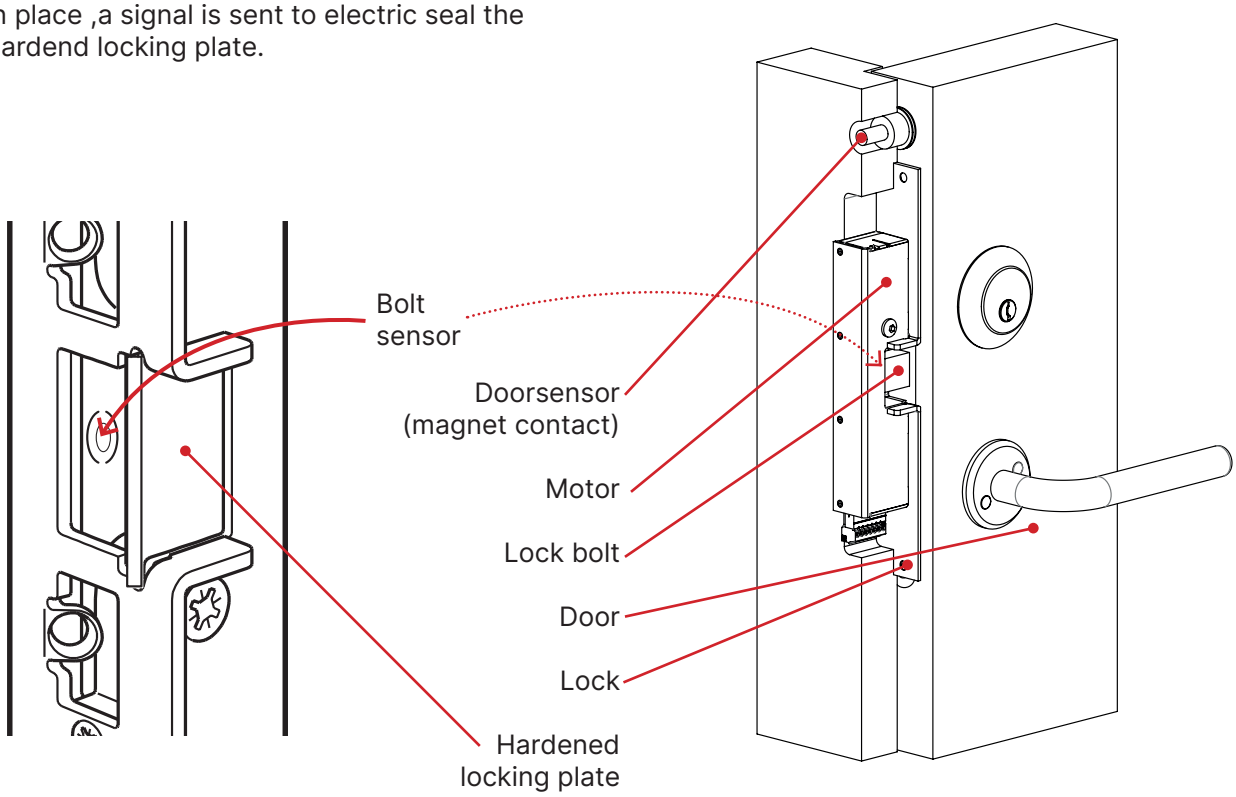
Door frame and door



Shows Exma Compact with a electric strike as daylock in the frame.

Bolt sensor

Bolt sensor
Exma's motor strikingplate has a built-in regulation sensor. The control sensor detects the position of the locking bolt. When the door is closed and the locking rule of the lock bolt is in place ,a signal is sent to electric seal the hardend locking plate.



Thanks

We at Exma Säkerhetssystem AB would like to thank you for choosing us and welcome you as a customer. You are now the owner of an engine end plate of the absolute highest quality.

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