

# ELECTRONIC LOCKSET TECHNICAL DATA SHEET

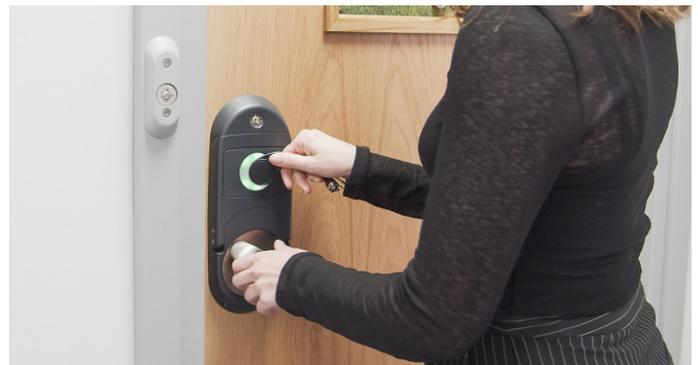
## PRODUCT OUTLINE

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Our Electronic Lockset with an integrated override system allows staff in a barricade situation to access a patient's bedroom in less than 5 seconds.

Safehinge Primera's Lifeline key can activate the override system, this one key also operates our vision panel, anti-barricade door stop and window restrictors. Once activated, an emergency lever overrides the lock, which provides a mechanical advantage to unlock the door and a strong grip to pull the door open against a barricade. An internal ratchet mechanism deactivates the internal turn pull and prevents the patient from locking the door from the inside, ensuring staff gain access to the room.

The lockset connects with third-party access control management software. As a result, users don't need to adopt a new access control system to take advantage of all the product's features, saving on time and costs. It also provides patients with the freedom to have control and autonomy over access to their bedroom while still allowing staff control if needed.



## KEY FEATURES

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**Integrated mechanical override** - allowing the override of a barricade in less than 5 seconds without the need for additional tools.

**Empowering patient independence** - reduces restrictive practices in line with Care Quality Commission guidelines; provides patient privacy and dignity, aiding recovery.

**Wireless system** - can be retrofitted with minimal disruption.

**Compatible with access control systems** - our Electronic Lockset can connect to third-party access control systems.

**Effortless access without the burden of multiple keys** - the override system is activated by one Lifeline key that is also used on our vision panel, window restrictors and anti-barricade door stop.

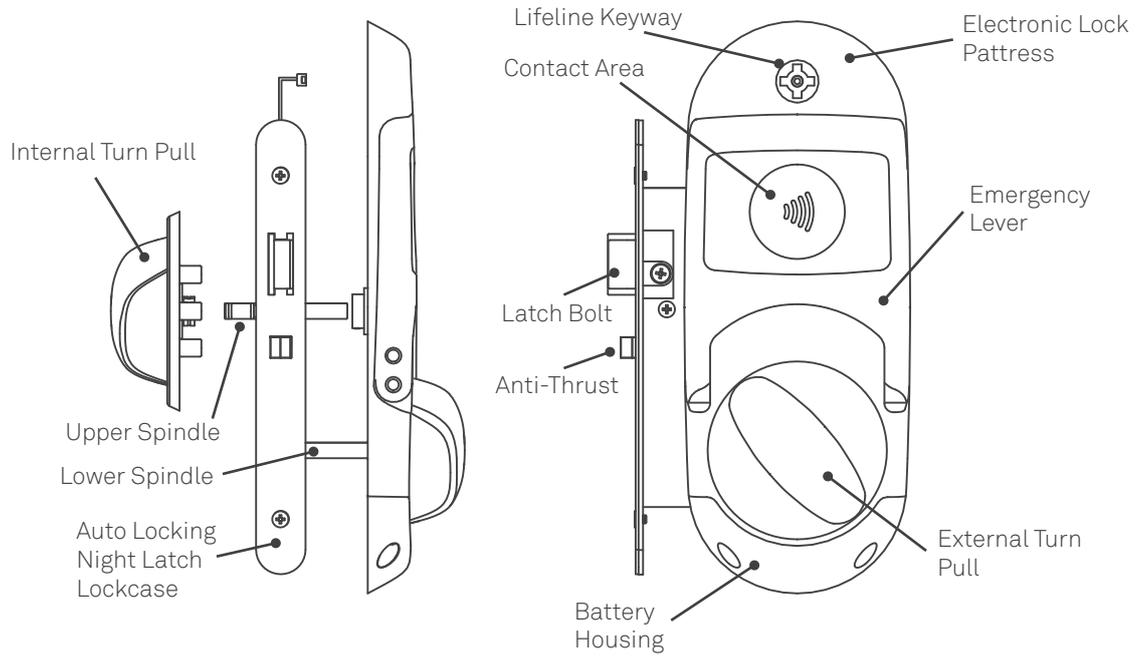
## PRODUCT SCOPE

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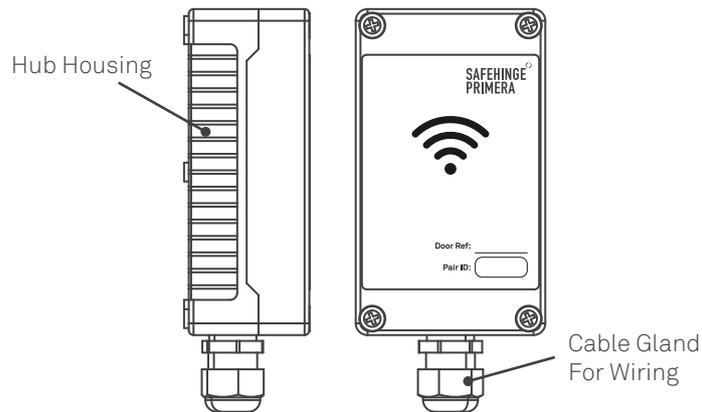
1. The Electronic Lockset is an anti-ligature electronic locking solution with a fully integrated override system (Lifeline key operated), designed for mental health environments.
2. The product is system agnostic and must be integrated into a third-party access control system to function. Any integration should be tested before installation.
3. The Electronic Lockset is comprised of a credential reader and an electronic lock. It communicates wirelessly to the Hub using a sub-GHz technology.
4. The product integrates into access control systems via a Wiegand connection from the Hub into a door controller only.
5. The lockset will read Mifare family credentials only.
6. The product uses a unique battery pack to ensure consistent quality. Additional battery packs must be purchased from Safehinge Primera.
7. The Electronic Lockset can only be installed with free egress.
8. A Safehinge Primera Lifeline key is required to activate the integrated override. The override feature is only to be used in anti-barricade situations or as an ultimate override to the lock. It is highly recommended that each member of staff carries a Lifeline key to ensure quick access to the override.
9. The lockset is only one part of an anti-barricade procedure and other considerations, such as an outward opening door and anti-barricade mechanism, must be implemented for a complete, robust anti-barricade solution. The anti-barricade sequence required for the lockset and anti-barricade door stop should be carefully considered, documented and trained depending on the specific configuration of your doorset.
10. The anti-barricade process will work most effectively with Safehinge Primera's Swiftstop doorset. This configuration would allow the fastest speed of entry and give the option to release the anti-barricade before or after the emergency lever has been released.
11. Before using the emergency override, it is essential that the anti-barricade stop is removed. Operating the emergency override before the anti-barricade is deployed may cause an interference and delay time to enter. The result of this varies depending on which anti-barricade stop is used.
12. Where removable door stops are used, a cut-out feature will be required to allow the fitting of the lockset and the use of the override. Safehinge Primera does not complete the cut-out feature and is not responsible for the door stop function or ligature performance. Details on compatible stops and machining details can be provided on request.
13. Fire Performance - the lock case has been fire tested in accordance with BS EN 1634-1 up to 60 minutes of fire integrity. The intumescent supplied with the lock case must remain in place for the product life to ensure fire performance.
14. Mechanical Performance - Safehinge Primera products have been rigorously tested to ensure they are suitable for mental health environments. For more details on the mechanical performance contact Safehinge Primera: info@safehingeprimera.com or 0330 058 0988.
15. Ligature Performance - TS001 A4. It is essential that the product has been installed and maintained as stated in the installation instructions and O&M manual to ensure the ligature performance is met for the lifetime of the product. This is not applicable when the emergency override is in use.
16. Care must be taken when the emergency override handle is deployed as this feature is not designed to be anti-ligature for maximum grip. Immediately after the operation is complete, staff must ensure the emergency handle is properly stowed and secured to maintain ligature performance.
17. The override is a life-critical product and therefore regular testing of the system is essential to ensure the product is functioning correctly.
18. It is important that staff are trained to use both the electronic and override aspects of the product.
19. The lockset can be specified with an Oryx handle. Where an Oryx handle is specified the ligature performance is reduced to TS001 grade B4. The mechanical robustness is also reduced. This arrangement is only suitable for low-risk or dementia wards.
20. The product has satisfied the requirements of IEC 60529:2013, IP Code X3.

**PRODUCT DIAGRAM**

**Electronic Lockset**



**Hub**

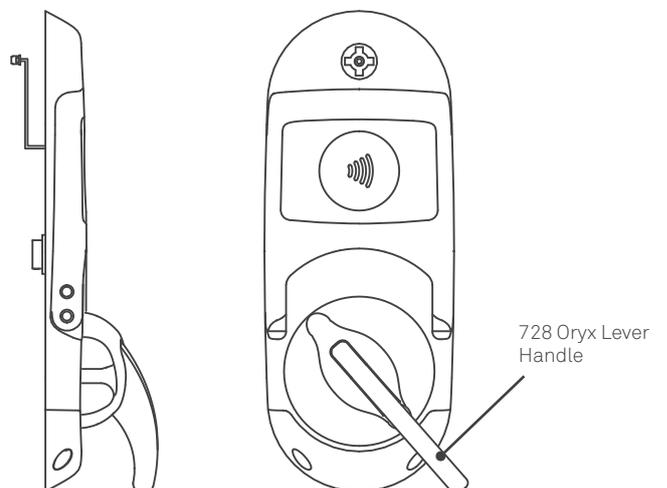


**Oryx Lever Handle**

**Suitable for low risk or dementia wards only.**

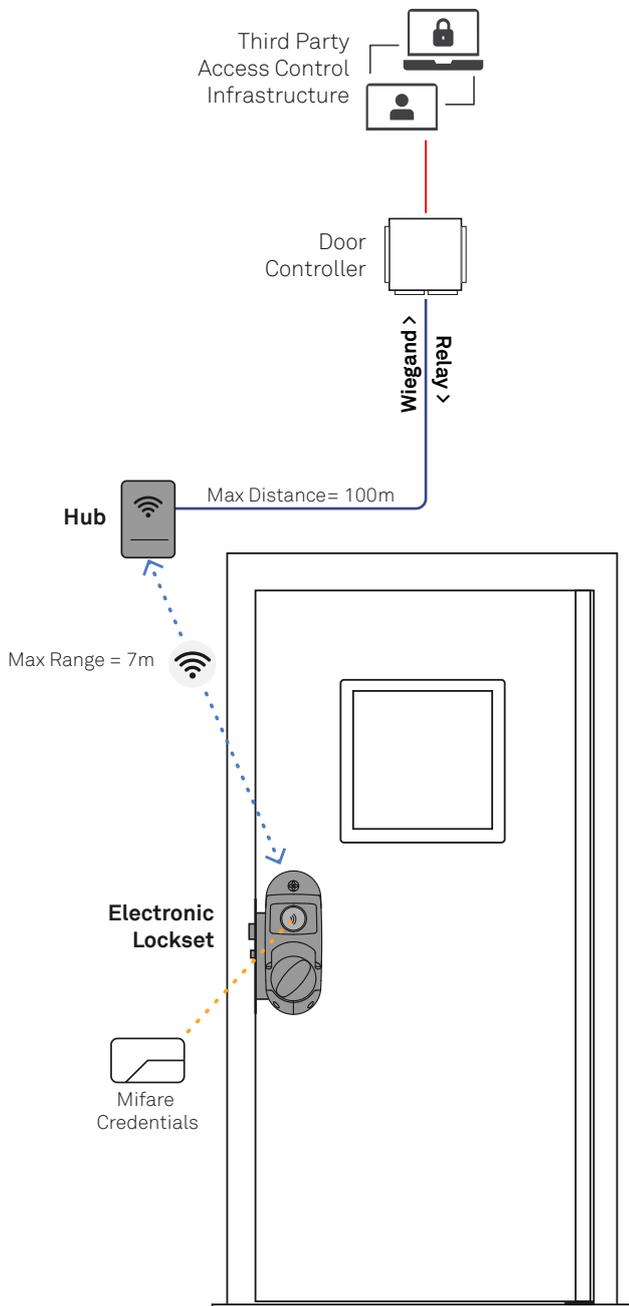
The Electronic Lockset can be specified with an Oryx lever handle. Where an Oryx handle is specified the ligature performance is reduced to TS001 grade B4. The mechanical robustness is also reduced. This arrangement is only suitable for low risk or dementia wards.

The internal turn will also be specified as an Oryx Lever handle.



## SYSTEM LAYOUT

The Electronic Lockset is connected to and managed within an access control system in a similar way to a hardwired wall reader. However, this system uses a Hub as a wireless interface to the lock, removing the requirement for wiring to the door.



### Access Control System

Safehinge Primera does not provide an access control platform. This is a third-party system that manages doors, readers and access rights. All hardware and software for this should be installed in advance of the Electronic Lockset being installed.

### Door Controller

A door controller is a critical component of the access control infrastructure through which the Electronic Lockset will be physically connected and integrated into the system. The controller must be able to accept a Wiegand input and provide a relay output to allow the door to unlock.

### Hub

The Hub is the interface between the Electronic Lockset at the door and the door controller. It is wired into the controller using a shielded 10-core cable and wirelessly communicates to the lock. The Hub can be mounted up to 100 metres from the door controller and can communicate to the lock at a distance of up to 7 metres, depending on the building fabrication.

### Electronic Lockset

The point of electronic access with an integrated override. The credential is read at the door and the unique ID is securely sent to the Hub with AES-256 encryption. This is validated at the door controller before returning a signal of access granted or access denied.

### Mifare Credentials

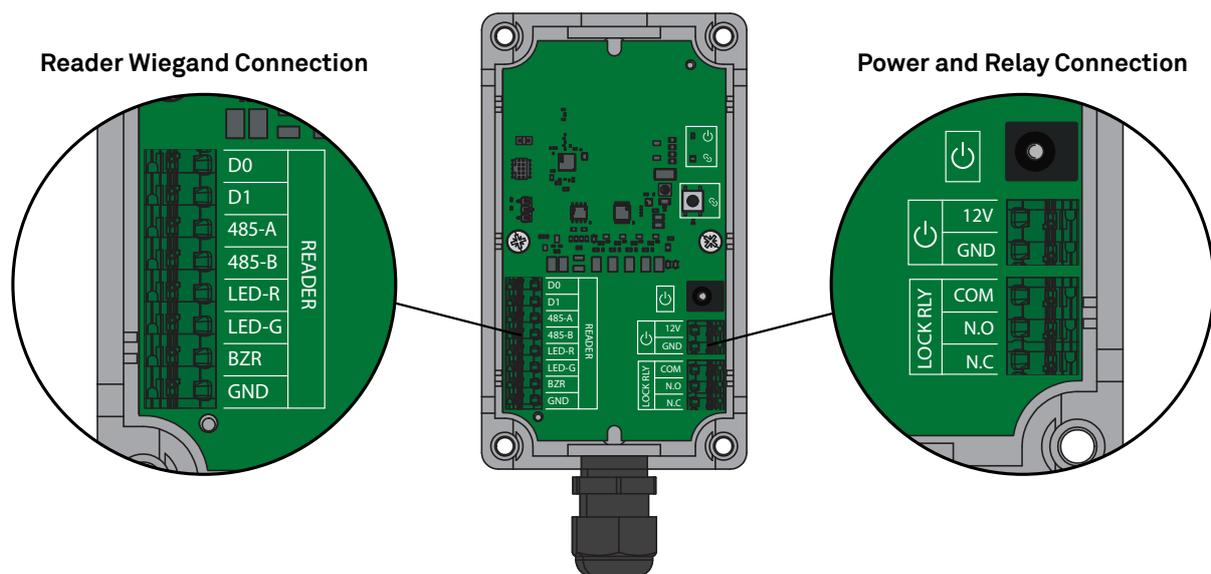
The Electronic Lockset accepts Mifare family credentials.

## ACCESS CONTROL INTEGRATION AND COMPATIBILITY

The lockset is compatible with third party access control systems (Safehinge Primera does not offer an access control system) and connects via a door controller. Any third party system and door controller must be able to:

- Accept a Wiegand reader input.
- Provide a connection for a relay signal (to judge door opening and opening time as per a typical hardwired electronic lock such as an electric strike or mag lock).
- Allow the use of Mifare credentials.

A list of tested, compatible access control systems can be provided upon request by Safehinge Primera, document SAF030 Electronic Lockset Compatibility Register. An access control provider can validate and test the product to have it included in the register.



## CREDENTIALS

The Electronic Lockset is compatible with the following Mifare Credentials:

- Ultralight
- Classic 1K
- Classic 4K
- DESFire EV1 & EV2

Safehinge Primera can provide the following Classic 1K credentials:



### Smart Card

**Part No. :** PR-6904-UCP

**Technology:** Mifare Classic 1K



### Adjustable Wristband

**Part No. :** PR-6934-AWB

**Technology:** Mifare Classic 1K

The adjustable wristband has a 4.8kg break force and is recommended for service users.



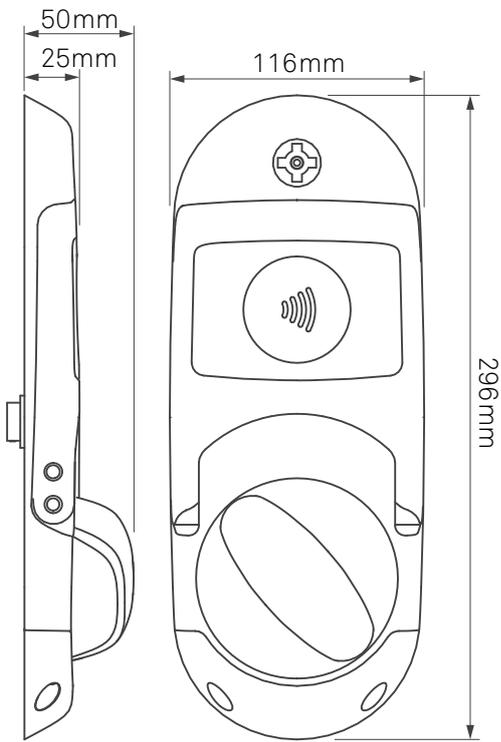
### Tear Fob

**Part No. :** PR-6914-EGF

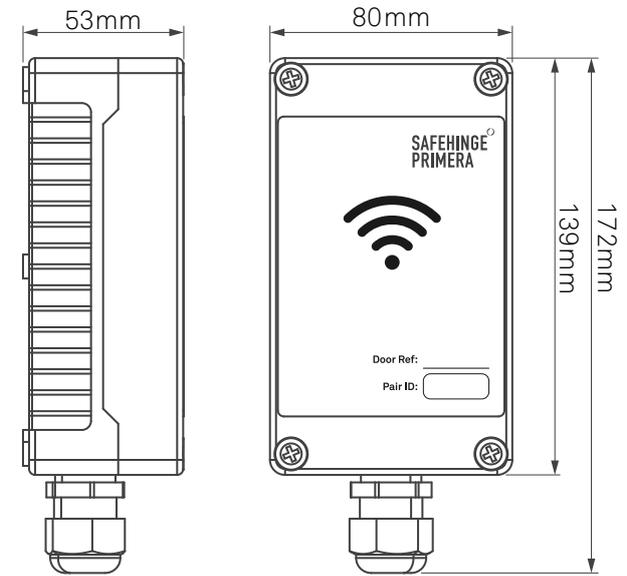
**Technology:** Mifare Classic 1K

PRODUCT DIMENSIONS

Electronic Lockset



Hub

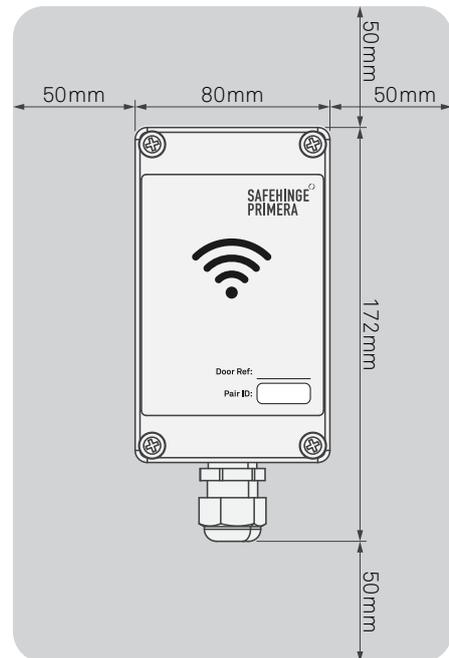


Drawings not to scale

## INSTALLATION CONSIDERATIONS

### HUB CONSIDERATIONS

1. It is recommended to leave 50mm clearance around the edge of the Hub, as per the diagram, to allow access for installation and wiring.
2. Do not install the Hub in a patient-accessible location.
3. The Hub can be mounted to concrete, timber, and timber stud wall substrates. It should be mounted away from large volumes of metal, and never be mounted inside a metal box due to interference with the wireless signal.
4. The Hub is wired to the door controller. The maximum wiring distance between the Hub and the door controller is 100m. You must ensure that your system is capable of providing enough current across this distance. For cable runs over 25m, you will need to double up the +ve and -ve power cores.
5. The maximum wireless communication range between the Electronic Lockset and Hub is 7m (depending on building fabrication).



### LOCKSET CONSIDERATIONS

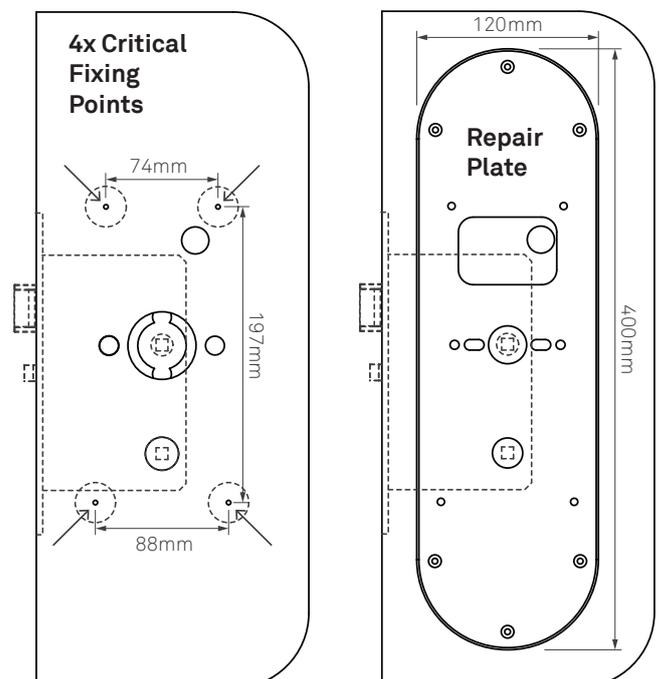
1. For new doors, ensure that the machining detail is correct as per the 'Door Manufacturing Requirements' on the following page.
2. A Lifeline key is required for the installation, it cannot be completed without one (Part No. PR-7320-LLZ-BK). The Electronic Lockset Installation Jig is essential to aid with installation of the lockset to the door (Part No. PR-3-06-725P-JIG).
3. For fire rated doors an intumescent wrap (Part No. PR-7701-ILW) must be used on the lockcase.
4. Ensure compatibility with any anti-barricade stop. Timber removeable door stops or swing stops will need to be machined in order to function with the Electronic Lockset. Safehinge Primera does not provide this service. See 'Door Stop Compatibility' below for compatibility information.

### RETROFIT DOOR CONSIDERATIONS

1. For retrofit doors, this diagram shows the critical fixing locations which require timber to fix to. If this is not available on the door, the door must be repaired or a repair plate is needed (Part No. B501350).
2. For a repair plate installation, the diagram shows the area that the repair plate covers. If there is damage outside of this area, the door will need to be repaired or replaced.

**If it is a fire door, the repair must be carried out to applicable standards.**

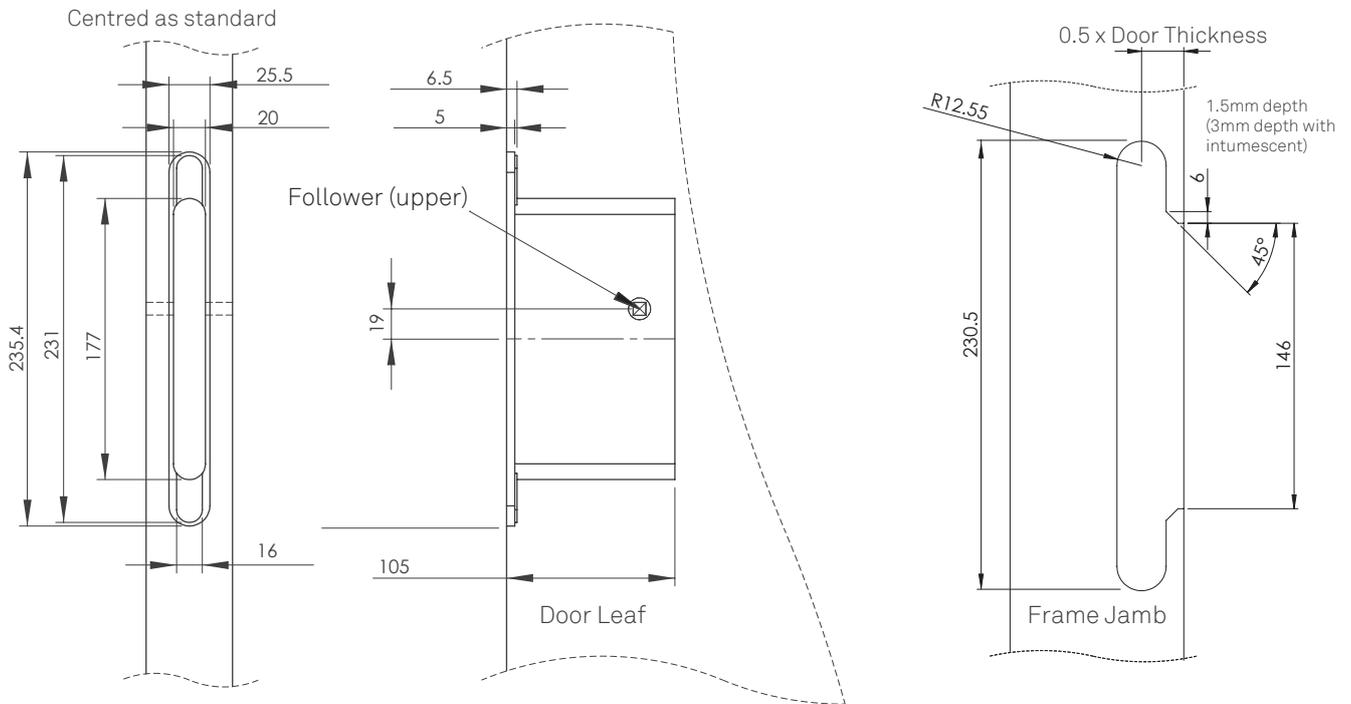
**If a removable door stop is being used, ensure it is compatible with the Electronic Lockset and machined accordingly.**



**DOOR MANUFACTURING REQUIREMENTS**

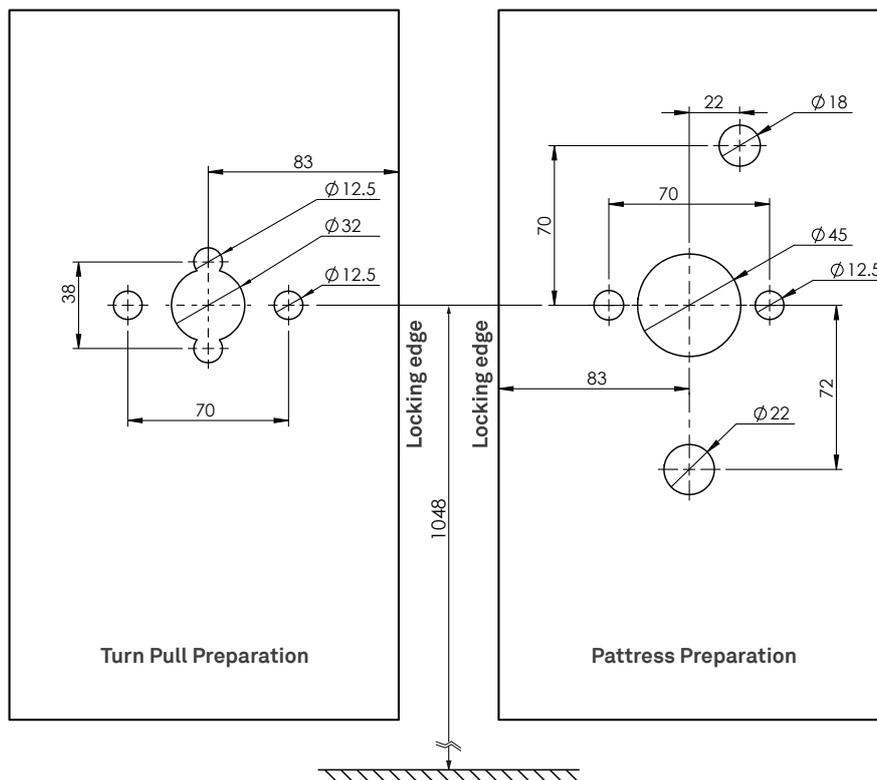
The diagrams below define the door frame and leaf manufacturing requirements to allow for installation of the lock case and the face preparation for the Electronic Lockset. The Electronic Lockset is supplied as standard with a strike plate that is suitable for 42-54mm thick doors. For any other strike plate requirements please contact Safehinge Primera and request the Strike Plate Templates form.

**Lockcase and Strike Preparation**



**Note: 2-4mm gap between door and frame is recommended at the closing edge.**

**Door Face Preparation**



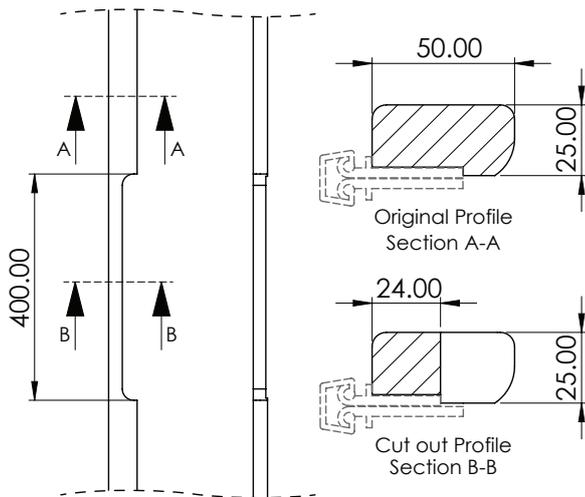
**Note: 1048mm height is a recommendation. Ensure the lockset does not clash with any other door components.**

**DOOR STOP COMPATIBILITY**

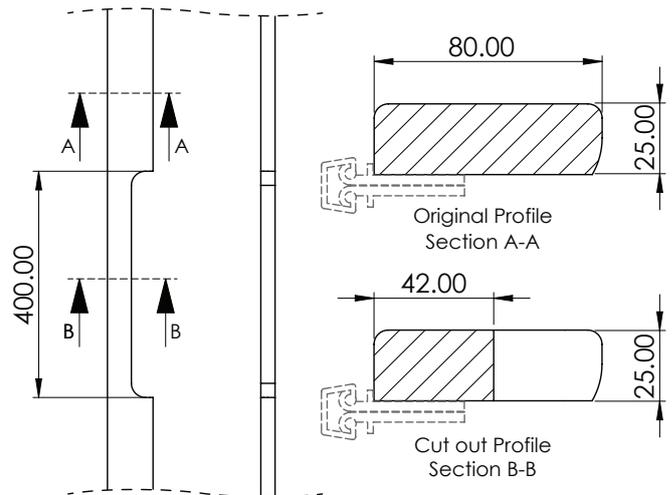
The Electronic Lockset will function most effectively in an anti-barricade situation with a Swiftstop Doorset or a Movastop, supplied by Safehinge Primera. Where a removable door stop is used, a machining detail will be required to ensure it does not clash with the Electronic Lockset.

The following drawings provide examples of door stops that have been tested as compatible with the Electronic Lockset, once machined. Safehinge Primera does not provide or modify any timber based removable door stop, therefore, it is the responsibility of the supplier to ensure fit and compatibility with the product and ensure the door stop functions within the environment.

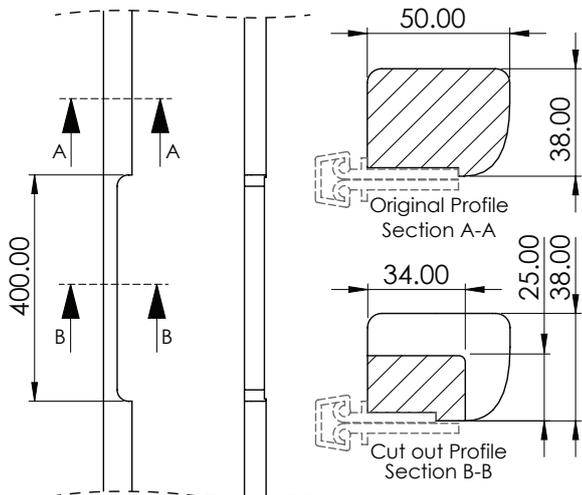
**25 x 50 mm Timber RDS with 2 point locking**



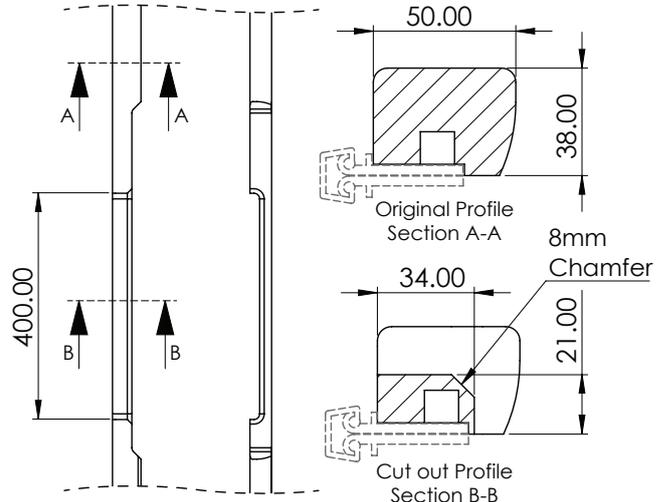
**25 x 80 mm Timber RDS with 2 point locking**



**38 x 50 mm Timber RDS with 2 point locking**



**38 x 50 mm Intastop Multilock Type 1**



## TECHNICAL SPECIFICATIONS

### Electronic Lockset

Parameter	Value	Unit
RFID Frequency	13.56	MHz
RFID Communication Range	Up to 20	mm
Card Data Read Verification Time	<1	s
Wireless Communication ISM Band	868 / 915 (depending on geographical location)	MHz
Wireless Communication Range	up to 7 (depending on building fabrication)	m
Wireless Communication Encryption	AES-256	
Power Source	6, Alkaline Battery Pack	V
Battery Life	12 (based on 40 reads per day)	months
Fire Rating	Up to FD 60	
Visual Interface	Green, Red, Blue LEDs	
IP Rating	IPX3	

### Hub

Parameter	Value	Unit
Wireless Communication ISM Band	868 / 915 (depending on geographical location)	MHz
Wireless Communication Range	up to 7 (depending on building fabrication)	m
Wireless Communication Encryption	AES-256	
Power Source	12	V
Current Draw	13	mA
Visual Interface	Green, Red, Blue LEDs	
IP Rating	IP68	

## COMPLIANCE

The Electronic Lockset meets the CE and UKCA compliance requirements



### FIRE PERFORMANCE

Our lockcase is rated up to FD60

**t** 0330 058 0988

**e** [info@safehingeprimera.com](mailto:info@safehingeprimera.com)

**w** [www.safehingeprimera.com](http://www.safehingeprimera.com)

**Blackpool Office**

Unit 8 Bankfield House

250 Bristol Avenue

Blackpool

FY2 0JF

**Glasgow Office**

44 Speirs Wharf

Glasgow

G4 9TH