

Product Datasheet UK_DS_SMARTLOCK Centralised Access Management System

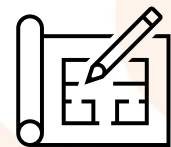
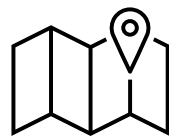


Product Description:

The GLAM-SP (GridLock Access Management - Static Platform) is a centralised access management application for the management of access requests to remote locations which have been equipped with static locking devices and configured on this system. This system is GPS (Global Positioning System) based and independent of national and international boundaries. Furthermore, this system provides geographical views and GPS positioning of all remote locations and utilises wireless communication and radio frequency identification technology, as well as mechanical interlocking mechanisms to secure these remote locations.

Along with access management the system can also be configured with Smartlock IOT (Internet of Things) sensor. This IOT device uses the SIGFOX IOT network to communicate with the Smartlock platform and can be used to validate alarms and additionally monitor the the direct environment around it.

Product Benefits:

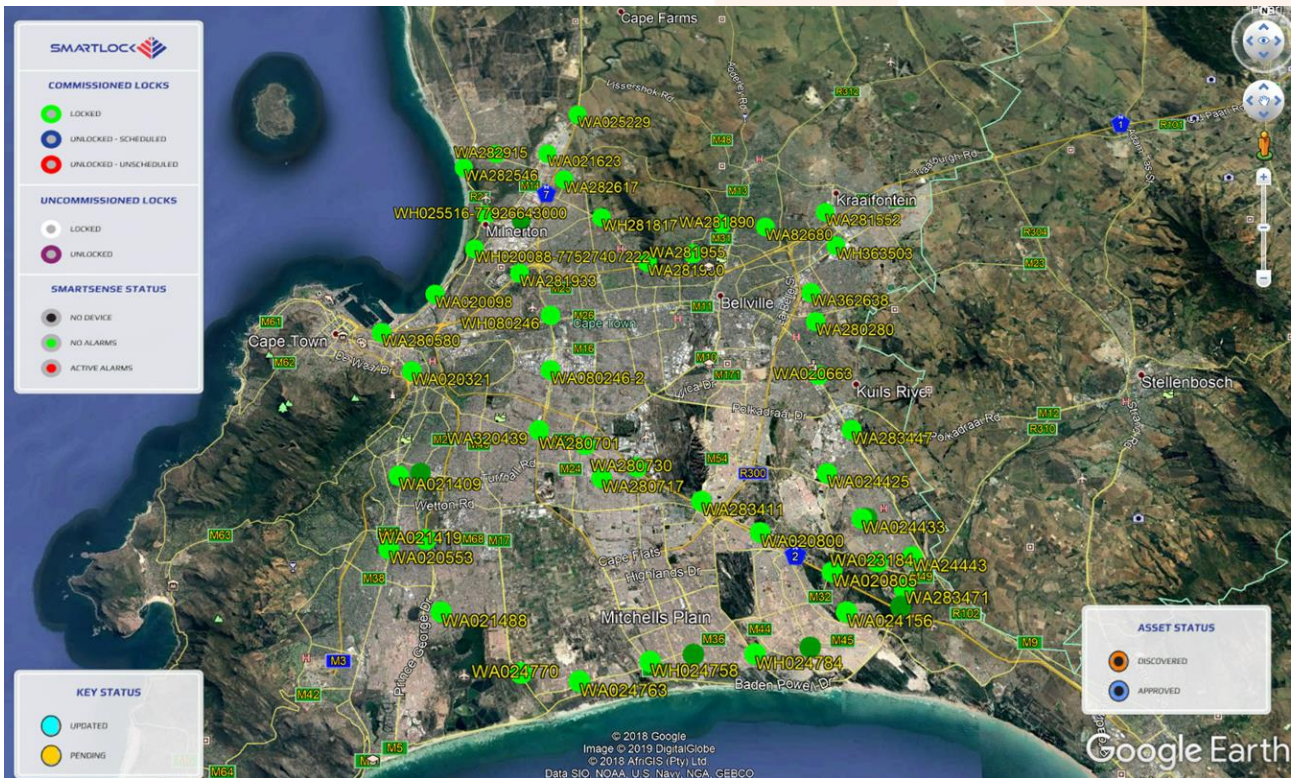
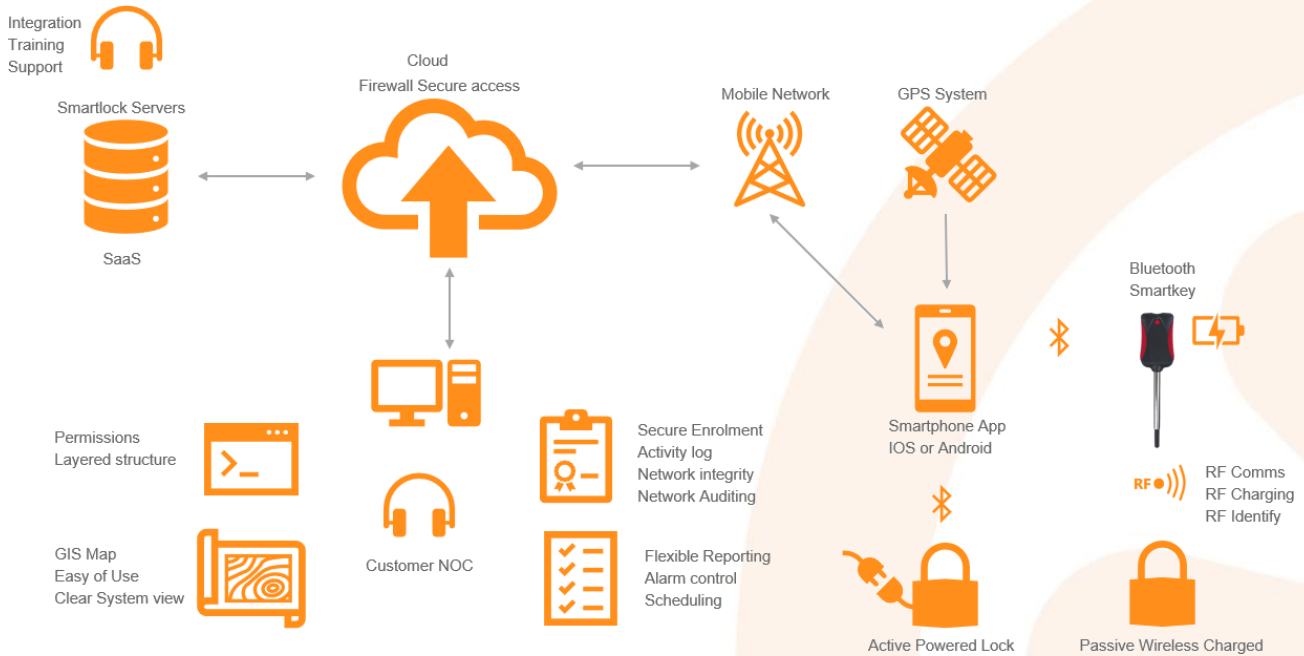


Secure Access Management and event recordings	Centralised Control, User rights and access requests	Clear GIS model of devices and keys	IOT Smart Sensor available for additional features and security	Design and Integration into existing infrastructure
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System Overview

The platform controls the entire system from which all access requests are managed. The platform utilises a Linux operating system and server with a windows internet browser application for user access. The keys are pre-authorised for access on an individual node basis. Parameters such as key serial numbers, lock and latch serial numbers and time intervals, are all utilised in the authorisation and authentication process to grant access to an individual user. The system is centralised, but user access can be from any location required, with specific user profile limitations on end users. The system supports a referenced GIS data application model to represent all Gridlocks and Smart keys located on the system.

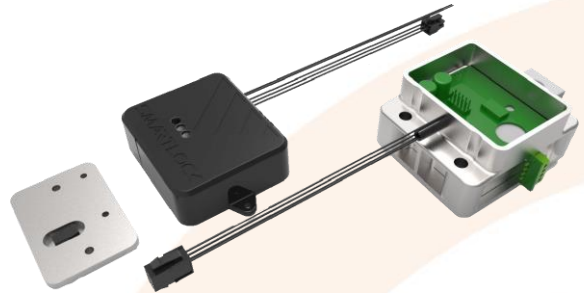


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Smart Lock devices Cabinet Lock Softkey Operated (Powered)

Product Description:

This solution is key-less in that the Lock with Bluetooth Controller is activated via an App on the Smartphone of the user. It is used in applications where access to street cabinets (and like enclosures) need to be controlled and managed. This is achieved with softkeys, programmable from a centralised, remotely located control room, to actuate specific Locks, in a specified time-frame and geo-cell. The Lock is secure, ingress protected for in-doors applications and maintenance free.



The Lock may be installed to prevent movement of an existing 3-point cabinet locking mechanism, or it may it-self prevent the cabinet door from opening. The Lock obtains its energy from the power source in the active cabinet, in 12V, 24V or 48V DC. This Solution prevents the locking of the cabinet door in an open position. The Lock and BT Controller may be retro-fitted to existing cabinets. The user of the Solution accesses the BT Controller by means of an App that resides on his smartphone, downloaded free of charge from the Google Play (Android) or Apple App Store (iOS). The Smartphone communicates via Bluetooth with the Controller, through the cabinet walls/doors

Technical Information:

MATERIALS

Lock body	Aluminium alloy A356 (T6)
Locking pin and metal parts	Stainless steel 304
Electronics (RS-232 Lock)	Completely encased in set potting
Electronics (BT Controller)	ABS thermoplastic (IP68 rated)

SECURITY LEVEL

Tested to requirements of: Loss Prevention Standard 1654 and BS EN 12320: CEN 4

ENVIRONMENTAL

Operating temperature -10° C to 70° C, according to IEC 60068-2

POWER SOURCE

Active cabinet power; 12V, 24V or 48V DC

FASTENING

BT Controller

Stainless Steel bolts (2x)

Lock

Stainless steel bolts (4x)

TAMPER RESISTANCE

Drill and tamper proof (fail in safe state)

MASS

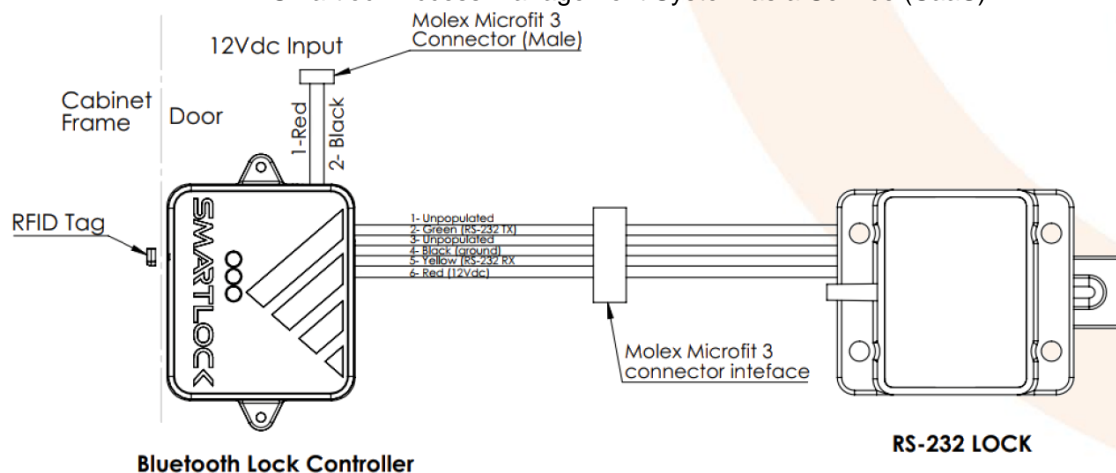
1.3kg

WARRANTY

24 months manufacturer's warranty

SOFTWARE

Smartlock Access Management System as a Service (SaaS)



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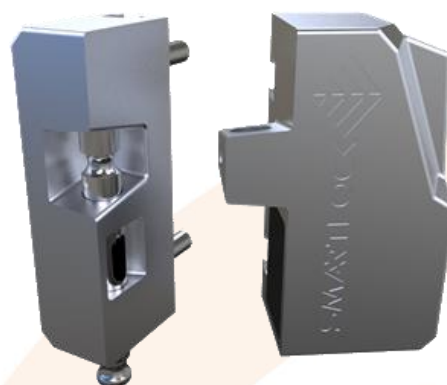
Smartlock Padlock

Product Description:

The The Fixed Padlock is used in applications where access to street cabinets needs to be controlled and managed from a remotely located control room.

The Padlock contains no internal battery and is energised by the Smartkey.

The Solution , via the Fixed Padlock, enforces closing of the cabinet door before locking is allowed. The Fixed Padlock may be retro-fitted to existing street cabinets or factory fitted to new street cabinets.



Technical Information:

MATERIALS

Body	Stainless steel 316
Shackle	Stainless steel 316
Electronics	Solid state

SECURITY LEVEL

Tested to requirements of: Loss Prevention Standard 1654 and BS EN 12320

ENVIRONMENTAL

Operating Temperature -10° C to 70° C, according to IEC 60068-2

Water Ingress Protection IP67 certified, according to IEC 60529

POWER SOURCE Smartkey, via inductive circuit

SHACKLE PROTECTION Encased in Lock body

TAMPER RESISTANCE Drill and tamper proof (fail in safe state)

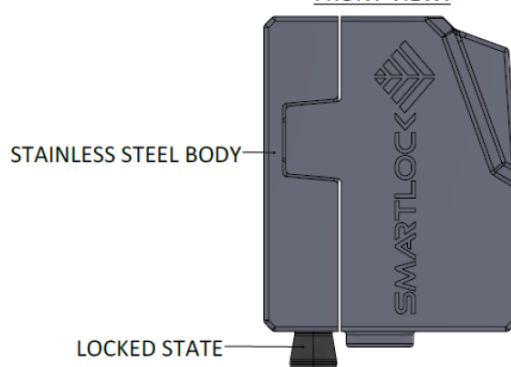
MASS 1.0Kg

DIMENSIONS 105mm x 80mm x 41mm (locked)

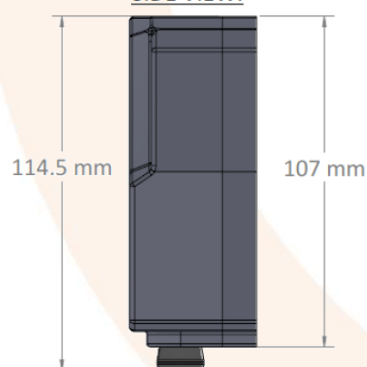
WARRANTY 24 months manufacturer's warranty

SOFTWARE Smartlock Access Management System as a Service (SaaS)

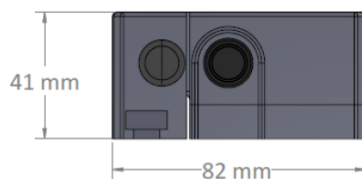
FRONT VIEW:



SIDE VIEW:



BOTTOM VIEW:



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Smartlock Padlock

Product Description:

The Smartlock Padlock Solution is used in applications where access to outdoors facilities needs to be controlled. This is achieved with electronic keys, programmable from a centralised, remotely located control room, to actuate specific Padlocks, in a specified time-frame. The Padlock is highly secure, ingress protected, corrosion proof and maintenance free. It provides an automated register of the assets protect-ed by it, based on their GPS location.

The stainless-steel body of the Padlock prevents corrosion and its electronics are completely sealed. The shackle is removable and available in various lengths, resulting in a high-strength security solution with flexible application.



Technical Information:

MATERIALS

Body	Stainless steel 316
Shackle Version 1	Boron steel alloy with chromium plating
Shackle Version 2	Stainless steel 316, polished finish

SECURITY LEVEL

Tested to requirements of: Loss Prevention Standard 1654 and BS EN 12320

ENVIRONMENTAL

Operating Temperature -10° C to 70° C, according to IEC 60068-2

Water Ingress Protection IP67 rated, according to IEC 60529

POWER SOURCE

Smartkey, via inductive circuit

SHACKLE CONFIGURATIONS

Standard Removable, 27mm clearance, 9.5mm diameter

Extended Removable, 42mm clearance, 9.5mm diameter

SHACKLE PROTECTION

Shrouded by body of Padlock
Drill and tamper proof (fail in safe state)

MASS

930g

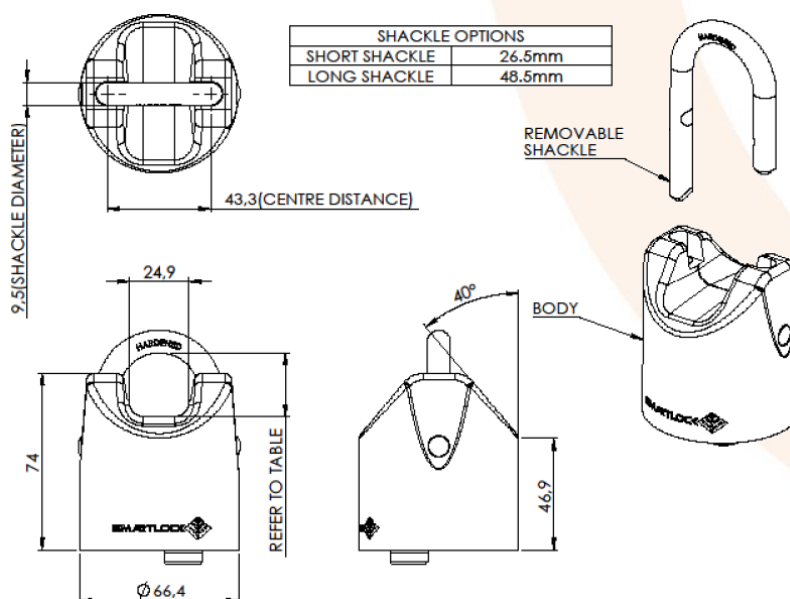
PACKAGING DIMENSIONS

WARRANTY

24 months manufacturer's warranty

SOFTWARE

Smartlock Access Management System as a Service (SaaS)



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Swing-Handle Cabinet Lock



Product Description:

The Swing-handle Cabinet Lock is used in applications where access to 3-point cabinet doors, such as those found in surface based communications infrastructure. The Swing-handle Cabinet Lock is highly secure, ingress protected, corrosion proof and maintenance free. It provides an automated register of the assets protected by it, based on their GPS location, which is automatically recorded in the data base.

The Swing-handle Cabinet Lock contains no battery, since it obtains its energy from the electronic key. The stainless-steel lock body, moving parts and handle prevent corrosion and the Lock's electronics are completely sealed. The Swing-handle Cabinet Lock may be retro-fitted to existing doors, since its universal foot-print fits most standard cabinet door designs..

Technical Information:

MATERIALS

Lock body, swing handle assembly Stainless steel 304
Electronics Sealed internal cavity

SECURITY LEVEL

Tested to requirements of: Loss Prevention Standard 1654 and BS EN 12320: CEN 4

ENVIRONMENTAL

Operating Temperature -10° C to 70° C, according to IEC 60068-2

Water Ingress Protection IP65 rated, according to IEC 60529

POWER SOURCE Smartkey, via induction circuit

FASTENING Stainless steel bolts

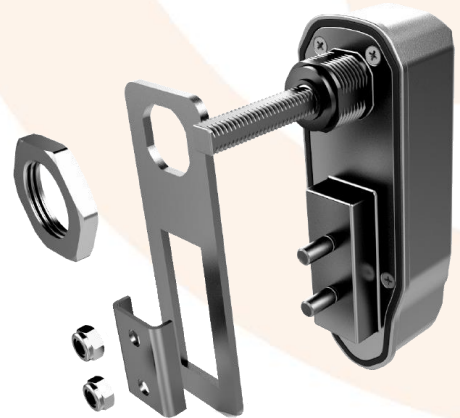
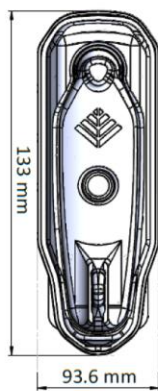
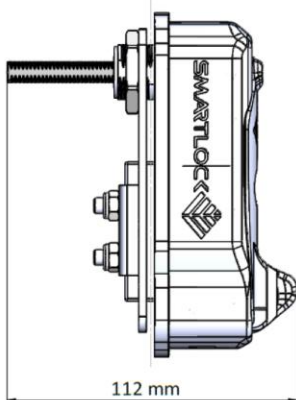
TAMPER RESISTANCE Drill and tamper proof (fail in safe state)

MASS 1.0kg

DIMENSIONS (Packaging) 165mm x 125mm x 55mm

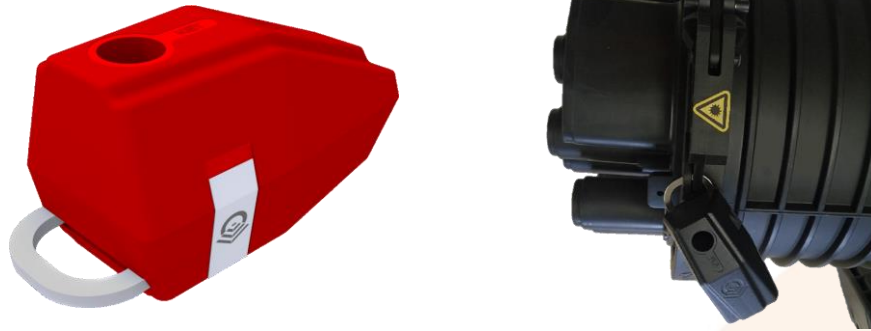
WARRANTY 24 months manufacturer's warranty

SOFTWARE Smartlock Access Management System as Service (SaaS)



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Electronic Seal Lock



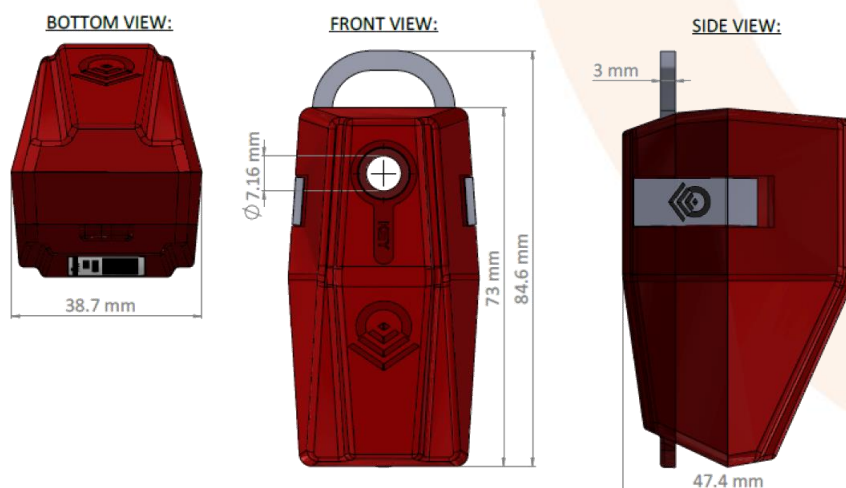
Product Description:

The Electronic Seal is used in applications to manage access control closures and wall boxes, including co-location of splice closures. This is achieved with electronic keys, programmable from a centralised, remotely located control room, to actuate specific E-Seals, in a specified time-frame. The E-Seal is ingress protected, corrosion proof and maintenance free. It provides an automated record of all activities conducted with the Smartkey, thereby providing an auditable record to support the credibility of the process that was sealed.

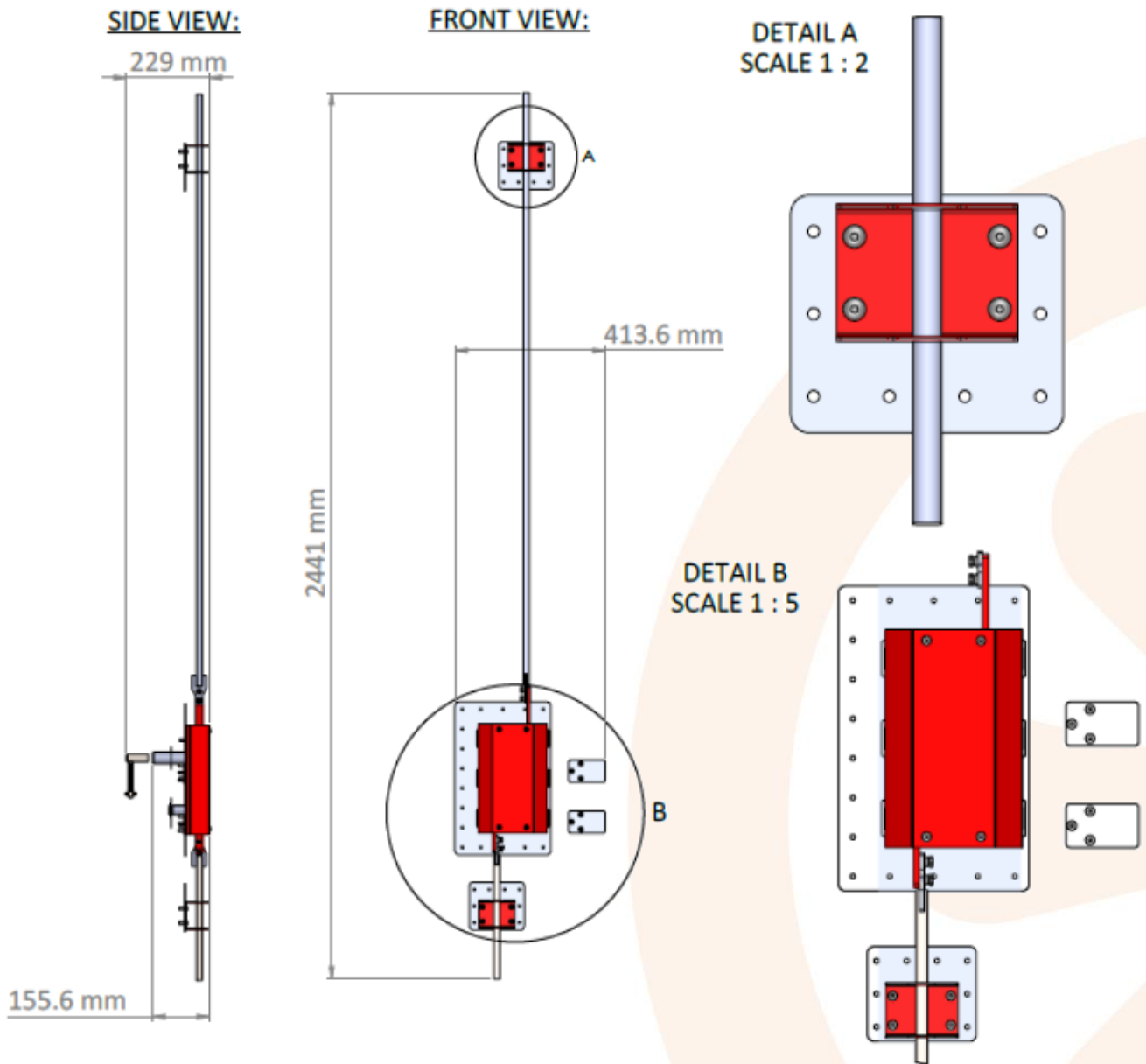
The E-Seal contains no battery and obtains its energy from the electronic key. The sealed body, moving parts and shackle prevent corrosion and its electronics are ultrasonically sealed.

Technical Information:

MATERIALS	
Shackle	Stainless steel 304
Electronics	Ultrasonically sealed
SECURITY LEVEL	
Tested to requirements of:	Loss Prevention Standard 1654 and BS EN 12320: CEN 1
ENVIRONMENTAL	
Operating Temperature	-10° C to 55° C, according to IEC 60068-2
Water Ingress Protection	IP65 rated, according to IEC 60529
POWER SOURCE	Smartkey, via induction circuit
MASS	50g
DIMENSIONS	85mm x 39mm x 48mm
WARRANTY	24 months manufacturer's warranty
SOFTWARE	Smartlock Access Management System as a Service (SaaS)



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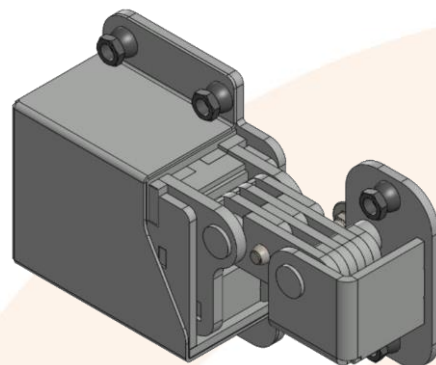
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Perimeter Gate SmartLock

Product Description:

The Gate Lock is used in applications where access to perimeter fenced premises needs to be controlled and managed. This is achieved with electronic keys, programmable from a centralised, remotely located control room, to actuate specific Gate Locks, in a specified time -frame. The Gate Lock is highly secure, ingress protected, corrosion proof and maintenance free. It provides an automated register of the assets protected by it, based on their GPS location.

The Gate Lock contains no internal energy source, since it is energised by the Smartkey. The stainless -steel shroud and locking mechanism prevent corrosion and its electronics are solid state. This Solution prevents the locking of the Gate Lock whilst the gate is in an open position. The Gate Lock may be retro -fitted to existing fencing posts and gates. The latch accommodates a post -gap between 15mm and 40mm upon installation and the sliding latch absorbs movement of the posts after installation. The Lock contains customisable design features.



Technical Information:

MATERIALS

Lock body	ABS Thermoplastic
Locking pin and other metal parts	Stainless steel 304
Electronics	Solid state

SECURITY LEVEL

Tested to requirements of: Loss Prevention Standard 1654 and BS EN 12320: CEN 4

ENVIRONMENTAL

Operating Temperature -10° C to 70° C, according to IEC 60068 -2

Water Ingress Protection IP67 rated, according to IEC 60529

POWER SOURCE

Smartkey, via induction circuit

FASTENING

Position

Both left and right handed versions

Fixing

Stainless steel bolts (6x)

TAMPER RESISTANCE

Drill and tamper proof (fail in safe state)

MASS

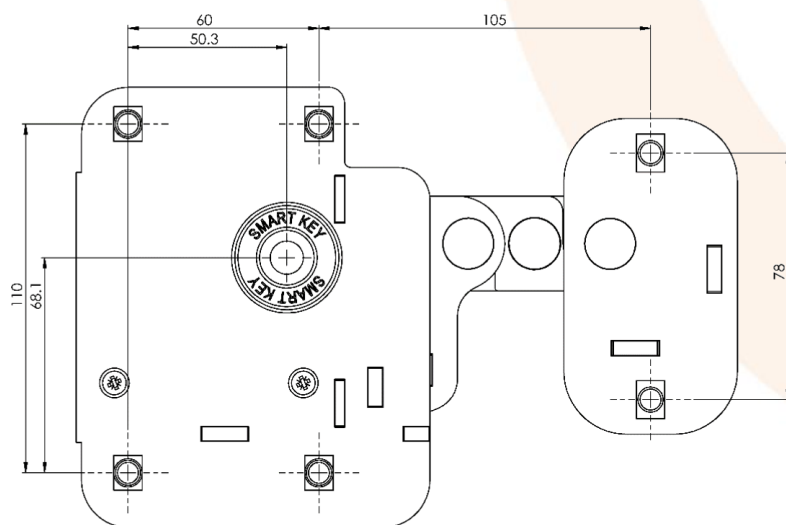
650g

WARRANTY

24 months manufacturer's warranty

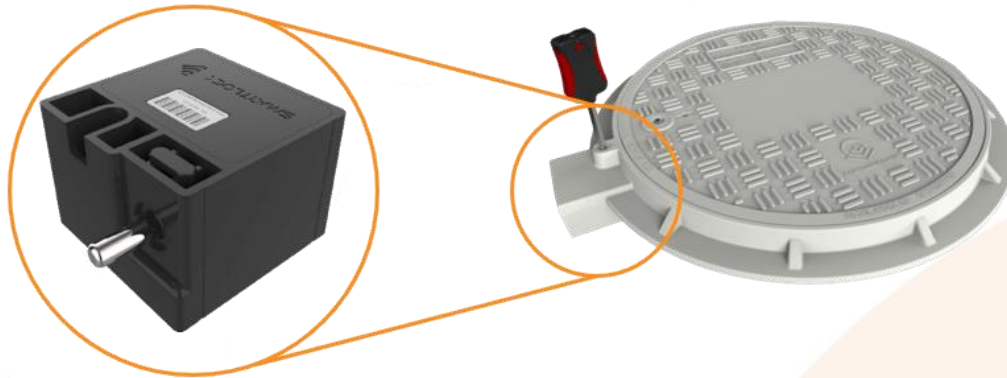
SOFTWARE

Smartlock Access Management System as Service (SaaS)



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Electronic Manhole Lock



Product Description:

The Electronic Manhole Lock is a fully encapsulated (ie solid state) mecha-tronic dead lock. It requires no power or physical communication connec-tion to operate.

It is certified to be water, dust and grit proof. It is maintenance free and resistant to a wide range of chemicals, making it suitable to be deployed in harsh and remotely located applications.

Technical Information:

MATERIALS

Housing

Locking pin

STANDARDS: Environmental

ABS thermoplastic

Stainless steel 304 polished

Tested to IEC 60068-2 and IEC 60529

Operating temperature: -10°C to 55°C

Ingress protection: IP68

80mm x 80mm x 60mm

PRIMARY DIMENSIONS

ALTERNATIVE OPTIONS

WARRANTY

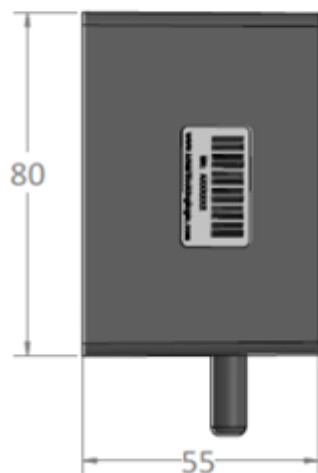
SOFTWARE

Variations in length of locking pin

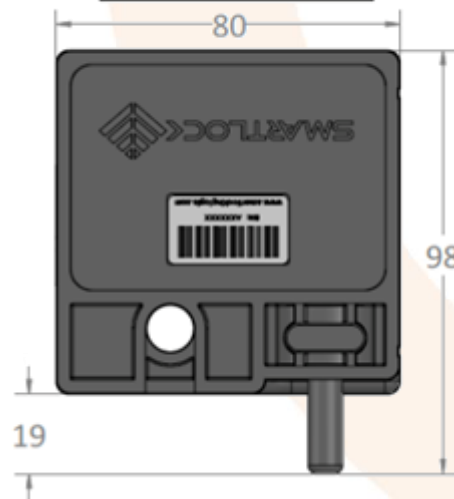
24 months manufacturer's warranty

Smartlock Access Management System as Service (SaaS)

SIDE VIEW:



FRONT VIEW:



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Smart Key devices

BLE-Key

Product Description:

The Bluetooth Low Energy (BLE) Smartkey is one of the main building blocks of this Solution. It uses Android® or iOS® based smartphones to operate any of the mechatronic locks in the Smartlock range. The Smartkey energises these locks with its internal battery, which is rechargeable.

The Bluetooth Smartkey manages all communication with the locks to authenticate the user and operate the system. The user interface is provided through an app, to proprietary software installed on a smartphone. Data communication to the software is provided by pairing the smartphone of the authorised user to the Smartkey via a Bluetooth® interface. Access requests are pre-authorised and downloaded to Smartkeys, uniquely assigned to users, via the smartphone.

The Bluetooth Smartkey captures all events in a log file and updates the management software of all activity and statuses via the smartphone. As a hardware protection feature, the Smartkey can be disabled at the central platform, should the need arise. In addition, users can be GPS located by the solution.



Technical Information:

MATERIALS

Body ABS plastic
Metal parts Stainless steel 316

ENVIRONMENTAL

Operating Temperature - 10° C to 70° C, according to IEC 60068-2
Water Ingress Protection Splash proof

POWER SOURCE

2.0 Ah lithium-ion battery

COMMUNICATION

Upstream (to mobile phone) Bluetooth (Low Energy)
Upstream (to software) Standard encrypted mobile network comms
Downstream (to lock) Proprietary comms via probe antenna

MASS

120g

EXTERNAL DIMENSIONS

60mm x 26mm x 113mm (various antenna lengths available)

Antenna lengths

43mm, 70mm, 150mm

WARRANTY

24 months on material and workmanship

SOFTWARE

Smartlock Access Management, SaaS

INTERNAL MEMORY

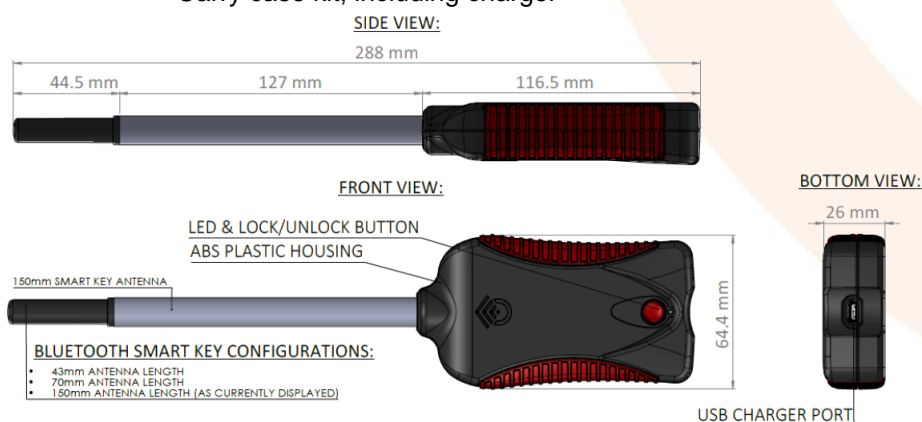
Storage of 100x access rights and related data

COMPATIBLE SYSTEMS

Monitoring of internal environment of access nodes (via IoT)

EXTRAS

Carry case kit, including charger



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SIM-Key

Product Description:

The SIM Smartkey is one of the main building blocks of this Solution. It obtains and stores access rights to operate any of Smartlock's electronic locks and seals. The SIM Smartkey energises the locks with its rechargeable battery.

The SIM Smartkey manages all communication with the locks to authenticate the user and operate the system. Data communication to the software is provided by its internal mobile phone modem. Access requests are pre-authorised and downloaded to the internal memory of the SIM Smartkey, which has been uniquely assigned to a specific user.

The Smartkey captures all events in a log file and updates the management software of all activity and statuses via its internal mobile phone module. As a network protection feature, the Smartkey can be disabled from the central platform in real time, should the need arise. In addition, users can be GPS located by the Solution. The Smartkey is programmable from a centralised, remotely located control room, to actuate specific electronic locks, in a specified time-frame. The electronic locks are energised by the Smartkey, by means of induction.



Technical Information:

MATERIALS

Body ABS plastic
Metal parts Stainless steel 316

ENVIRONMENTAL

Operating Temperature - 10° C to 70° C, according to IEC 60068-2
Water Ingress Protection Splash proof

POWER SOURCE

2.0 Ah lithium-ion battery

COMMUNICATION

Upstream (to software) Standard encrypted mobile network comms

Downstream (to lock) Proprietary comms via probe antenna

MASS

125g

EXTERNAL DIMENSIONS

Antenna lengths 30mm, 57mm, 150mm

WARRANTY

24 months on material and workmanship

SOFTWARE

Smartlock Access Management, SaaS

INTERNAL MEMORY

Storage of 100x access rights and related data

COMPATIBLE SYSTEMS

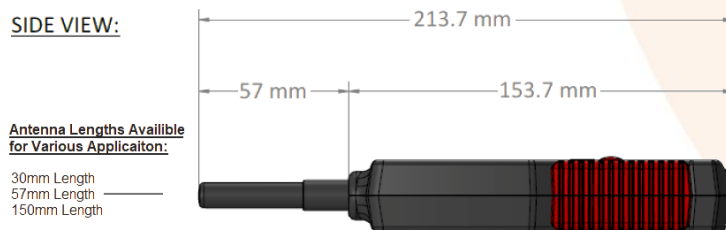
Monitoring of internal environment of access nodes (via IoT)

EXTRAS

Carry case kit, including charger

Finger print authentication of registered user

SIDE VIEW:



Antenna Lengths Available for Various Application:

30mm Length
57mm Length
150mm Length

FRONT VIEW:



BOTTOM VIEW:



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Internet of Things devices

Smartlock IOT Sensor

Product Description:

The Smart Sensor device is a narrowband IOT based data acquisition unit (including alarms), utilised for monitoring security and environmental related thresholds, within nodes of a distributed telecommunication network. It is also used to gather trend data of the monitored parameters, at predefined intervals, for statistical analysis. This unit is a key component in gathering and communicating these measures and conditions to a specified monitoring software application.

The standard Sensor measures vibration (and impact) and the presence of light, whilst the environmental Sensor measures these as well as temperature and humidity.

When pre-set values of the measured variables are detected, the Sensor immediately communicates such breach to the central software application of Smartlock, where it is correlated with access rights granted. Alarm alerts are generated in the event of security breaches. In addition, the unit communicates its own health to the operations centre at regular intervals.



Technical Information:

MATERIALS

Body ABS plastic

ENVIRONMENTAL

Operating Temperature -10° C to 70° C, according to IEC 60068-2

Water Ingress Protection IP68 (Standard version)

POWER SOURCE

48Ah 3.6V lithium ion battery

COMMUNICATION

Upstream (to Software) Standard encrypted IoT protocols for NB-IoT, Sigfox and LoRa

MASS

85g

EXTERNAL DIMENSIONS

84mm x 65mm x 32mm

WARRANTY

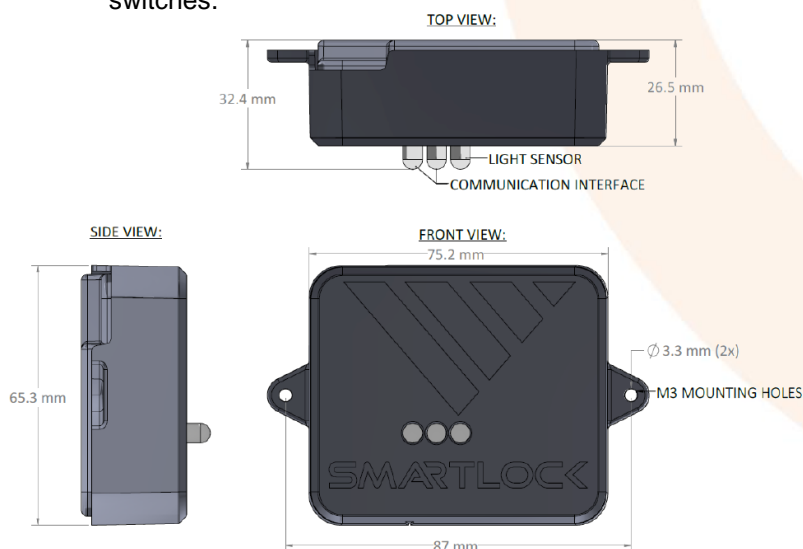
24 months manufacturer's warranty

SOFTWARE

Smartlock Access Management System as a Service (SaaS)

ALTERNATIVE OPTIONS

Monitoring of a maximum of a further 4x digital (wired) variables, via On/Off toggle switches.



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