The Inner Range Mobile Access Reader is a combined Bluetooth enabled, IP67 rated Smart Card reader that supports both Bluetooth mobile technology and SIFER encrypted card formats for physical access control.

It is a multi-drop RS-485 based reader that employs 128 bit AES encryption from the card through to the door module, providing a far superior level of security than that of traditional Wiegand based card readers. These readers utilise the Mifare DESFire© EV1/EV2/EV3 card format. Mobile Access Readers also support reading the CSN of third party 13.56Mhz credentials

As these readers utilise a superset of the OSDP protocol, the readers may also be deployed on any system capable of using OSDP. These readers are connected to the RS-485 reader port for full Reader-In and Reader-Out operation of various Inner Range products as below:

- Integriti Access Controller (IAC) - Up to 16 Readers on-board
- Intelligent LAN Access Module (ILAM) - Up to 16 Readers
- Standard LAN Access Module (SLAM) -Up to 4 Readers
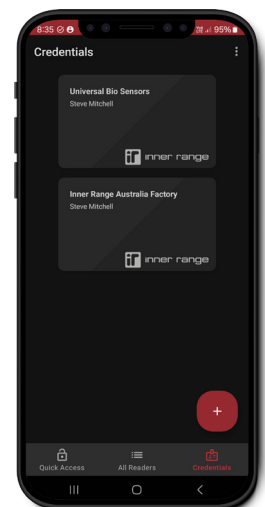- Inception Controller - Up to 8 Readers on-board

Mobile Access Readers are IP67 rated and available with site-specific encryption keys.

## Reader Features

- Secure 128bit AES Encryption
- Bluetooth enabled Reader
- Encrypted from Reader/Card through to Access Module
- Mifare DESFire© EV1/EV2/EV3 Card Format
- Water & Dust Resistant to IP67
- Vandal Resistant (fully potted)
- Flexible LED colour & function Assignment
- Audible Buzzer (can use as DOTL)
- Multi-drop RS-485 Reader LAN
- Individual Reader Heartbeat Monitoring
- Auto Reader Discovery on Inner Range systems
- OSDP Compatible
- Read Card Serial Number (CSN) From 3rd Party Cards
- Support for Custom Site Codes and Site Specific Encryption
- User Programmable Cards Offer Great Flexibility for Installers
- Global Configuration From Inner Range Systems (including firmware updates)
- Small Footprint (Dimensions:
- 40 mm x 96 mm x 16.5 mm)

| SIFER Connectivity Guide | Host Module | | | |
|---|---|---|---|---|
| | IAC | SLAM | ILAM | Inception Controller |
| SIFER Reader Qty | 16 | 4 | 16 | 8 |

# Specifications

## Physical

| | |
|---|---|
| Dimensions: | 40 mm x 96 mm x 16.5 mm (26.5 mm with Spacer) |
| | 1.575" x 3.78" x 0.65" (1.043" with Spacer) |
| Shipping Weight: | 108grams (Reader & Accessories) |
| Mounting Plate: | 91.5(L) x 38(W) (mm) |
| Mounting Method: | 2 x fixing screws for mounting plate |
| Mounting Holes: | 65.5mm hole spacing |
| Mounting Surface: | Optimised for flat non-metallic surfaces |
| Cavity Cable Entry Hole: | Up to 20mm |
| Installation Environment: | -25°C to +65°C (-13°F to +149°F) |
| | @15% - 90% relative humidity (non-condensing) |
| Ingress Protection: | IP67 |

## Reader Protocols

| | |
|---|---|
| Device Communications: | Open Supervised Device Protocol (OSDP) |
| Operating Frequency: | 13.56 Mhz |
| Credentials: | Mifare DESFire© EV1/EV2/EV3 with AES encryption |
| Credentials: | Read Card Serial Number (CSN) from 3rd party cards |

## Connections

| | |
|---|---|
| Pigtail Cable Length: | 500mm |
| Pigtail Extension Cable Type: | 2-pair 7/0.20 (24AWG) twisted pair data cable as minimum. 2-pair 14/0.20 (21AWG) multi-strand shielded twisted pair data cable is preferred (e.g. Belden 8723). See installation manual for more info. |
| Connection Methods: | RS-485 multi-drop star or daisy chain configurations |
| Distance to Host Module: | Up to 1000 meters. See installation manual for more information |
| Max Readers: | Up to 16 with IAC & ILAM, Up to 8 with Inception Controller, Up to 4 with SLAM |
| Compatible Host Modules: | Standard LAN Access Module (SLAM), Intelligent LAN Access Module (ILAM), Inception Controller, Integriti Access Controller (IAC) |

## Reader Security

| | |
|---|---|
| Physical Tamper: | Optical beam to mounting surface |
| Card to Reader: | 128bit AES encryption |
| Reader to Access Module: | 128bit AES encryption |
| Vandal Resistance: | Fully encapsulated vandal resistant electronics |

## Reader Configuration

| | |
|---|---|
| LAN Addressing: | Fully automatic when used with Inner Range systems Manual addressing with 3rd party OSDP compatible systems |
| Firmware Updates: | Over-the-wire firmware updates when used with Inner Range systems |
| Reader Purpose Options: | Control a Door, Control a Lift, Log on, Area status toggle |

## LED & Beeper Indicators

| | |
|---|---|
| LED Configuration: | Brightness, Colours & Feedback modes - configurable via Integriti Software or Inception Controller |
| LED 1 & 2 Colour Options: | RGB Indicator 23 colour selectable |
| Feedback Modes for LED's: | Area Status, Area Alarm/Isolated, Entry/Exit Delay, Door open/locked status, Valid/Invalid card badge, No LED's |
| Beeper Volume: | Variable - configurable via Integriti software or Inception Controller |
| Beeper Feedback Options: | Valid/Invalid card badge, Door Open tool long (DOTL), Area Alarm, Entry/Exit Delay |

## Power Requirements

| | |
|---|---|
| Input: | 11-14V DC <500mV ripple |
| Current Consumption: | 65-100mA typical, 150mA MAX with all LED's driven at full brightness |

## Compliance

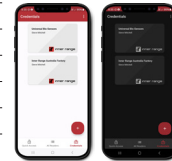Electrical

Environmental

# Ordering Options

## Readers

**994723**
IR Mobile Access Reader

## Credentials

**Mobile Access Credentials**

**994635ICP**
Inception

**994635INF**
Infiniti

**994635**
Integriti

**ISO Cards**

**994610**
SIFER-P DESFire© EV3 4K ISO (Pre-programmed- Printed)

**994612**
SIFER-U DESFire© EV3 4K ISO (User Programmable - Printed)

**994614****
SIFER-C DESFire© EV3 4K ISO (Custom Programmed - Printed)

**994580**
ECOLITE MIFARE Ultralight EV1 (Pre-programmed)

**Key FOB's**

**994616**
SIFER-P DESFire© EV3 4K FOB (Pre programmed - Printed)

**994618**
SIFER-U DESFire© EV3 4K FOB (User Programmable - Printed)

**994620****
SIFER-C DESFire© EV3 4K FOB (Custom Programmed - Printed)

## Management Tools

**994750 SIFER-U**
Card Programming Station
**994751**
SIFER Card Enrollment Station
**994614CNF****
SIFER -C Reader Configuration Card

## Mounting Accessories

**999037**
10mm Spacer (For mounting to metal)

**999034**
Vandal Resistant Cover - standard

**999035**
Vandal Resistant Cover with inbuilt spacer

**SIFER-C cards are programmed with a custom encryption key and will require at least one SIFER Reader Configuration card with the initial batch.