



Inception Web Powered Security Controller V2.0 Increased Capacity - Reduced Price End User Brochure 2018



# Simple plug and play technology



T4000 or other security devices

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## **RS-485 LAN Expansion Port**

Add LAN expansion modules to Inception including keypads, input/output expanders, access control, modules and wireless fobs and detectors

Inception LAN Module Compatibility Chart

Module / Device Description	Code
8 Input LAN Expander (UniBus Host)	21120
UniBus 8 Input Expander	21200
UniBus 8 Relay Expander	21211
Standard LAN Access Module (SLAM)	21140
Paradox RF Expander	20338
EliteX Terminal / Elite Terminal (Grey)	20309 / 20307
SIFER Smart Card Reader (Standard / Multi Format)	21030 / 21031
T4000 Communicator / T4000 Communicator Spark Network Only	35409 / 35409SPARK
LAN Over Ethernet Device (CLOE)	20500
LAN Isolater	20355
Fibre Modem (Multi Mode / Single Mode)	20502 / 20503
Wi-Fi Adapter	21011





### SIFER Reader RS-485 Port

Connect up to 8 SIFER readers for in/out access control of up to 4 doors

	On-Board Inception Controller	With LAN Expansion
Doors	4*	126
SIFER Readers	8	256
Wiegand Readers	5**	128/256***
Areas	32	32
Inputs	8	512
Outputs	4*	512
Lift Cards	32	32
Users	10,000	2,000
Events	50,000	50,000

System

Capacities

\*The Inception controller has 4 relay outputs in total. These can be used as lock relays for doors or general purpose dry contact outputs. \*\* via 8 OSDP to Wiegand / Wiegand to OSDP Converters. \*\*\*256 Wiegand readers require a combination of OSDP to Wiegand / Wiegand to OSDP converters and 127 Standard LAN Access Modules.



# **Inception Peripherals**

# SIFER Smart Card Reader

The SIFER card reader is a Smart card reader designed and manufactured by Inner Range. It is a multi-drop RS-485 connected 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. SIFER readers utilise the Mifare DESfire EV1 card format. SIFER allows the colour scheme of the indicator LEDs to be customised according to the sites requirements. The internal beeper is used to provide audible feedback to indicate valid access, access denied and other event or warning sounds.

Up to 8 SIFER readers may be connected to the RS-485 reader port on the Inception controller and up to 4 may be connected to the Standard LAN Access Module (SLAM). SIFER's bus interface allows all of the readers to be connected via just one cable. With a single connection to the controller, time and money is saved through the reduced need for cabling. SIFER readers are IP67 rated and can be configured with site specific encryption keys. The SIFER reader is available in two versions: The standard SIFER which will only read SIFER cards, and the Multi-Format SIFER which can read SIFER cards and also the Card Serial Number (CSN) of other smart cards such as MiFare & iClass.

21030 SIFER Smart Card Reader 21031 SIFER Smart Card Multi-Format Reader Coming Soon in 2018 SIFER Keypad/Smart Card Reader Coming Soon in 2018 SIFER Keypad/Smart Card Multi-Format Reader

# SIFER Cards & Fobs

- 1. SIFER-P: Pre-programmed 'stock' cards. The most cost-effective card option without customisation options. With more than four billion card numbers available, each SIFER-P card is guaranteed to be unique.
- 2. SIFER-U: User Programmable cards that allow an installer to customise the card number, site code and use their own encryption key via the SIFER Programming Station (Code 21036)
- 3. SIFER-C: Custom batch orders configured by our factory according to the specified card number range, site code, encryption key and printing options. Cards cannot be re-programmed at a later stage by the installer or our factory.

ISO Cards	21040 SIFER-P DESFire EV1 4K ISO - Pre-programmed - Printed
	21041 SIFER-U DESFire EV1 4K ISO - User Programmable - Printed
	21042 SIFER-C DESFire EV1 4K ISO - Custom Programmed - Printed
FOB's	21043 SIFER-P DESFire EV1 4K FOB - Pre-programmed - Printed
SIFER Tools	21036 SIFER Card Enrolment Station for SIFER-U cards





SIFER-U 20008

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# OSDP to Wiegand / Wiegand to OSDP Converter

The OSDP to Wiegand / Wiegand to OSDP Converter is a small inline device that can operate in two main modes that can open up many new options when determining and designing a site's hardware requirements.

### Option 1:

Connect Wiegand readers to OSDP ports

Via the Converter, a Wiegand reader can now be connected to an OSDP port. This allows Wiegand readers to make use of many of the benefits that an OSDP reader bus provides:

- 128bit AES encrypted communication path
- 4-core cables to the module, while still offering beeper, valid and invalid LED control
- Longer cable runs
- More flexible wiring configurations (for example, daisy-chaining readers together for a single run back to the module).

In practice, this allows up to 8 Wiegand readers to be connected directly to an Inception Controller, allowing read-in and read-out abilities on up to 4 doors without extra hardware, which is perfect if upgrading an existing site with access control to Inception. In addition, two extra Wiegand readers can be connected to SLAMs, again allowing read-in and read-out abilities on both doors of a SLAM.

The advanced control that Inception offers for a Wiegand reader's beeper and valid/invalid LEDs are also available when connected to the OSDP to Wiegand / Wiegand to OSDP converter. This allows numerous area events like arm success or failure, entry delay, exit delay, alarm and area arm warning, or door events like door unlocked and held open too long to make use of the inbuilt Wiegand reader beeper and LEDs to provide feedback to users.

#### Option 2:

Connect OSDP readers to Wiegand reader port. Via the Converter, OSDP readers such as Inner Range SIFER readers or other products can now be connected to existing Wiegand reader ports. This allows SIFERs, for example, to be used on older Concept hardware or other products in preparation for a site upgrade.

When used in conjunction with an Inception system, it allows non-SIFER OSDP readers to be connected to SLAMs, allowing sites with existing OSDP readers to be changed to an Inception site.

21039 Inner Range OSDP to Wiegand / Wiegand to OSDP Converter



# **Inception Keypads & Cabinets**

## **Elite LCD Keypad**

The EliteX LCD keypad is elegantly designed and features a clear and easy to read OLED display. Users can use the Keypad to perform typical operations on the Inception system. This includes control of security areas, door access, event activity review and controlling the state of outputs.

Users PIN numbers can also be changed directly from the keypad. The OLED LCD display shows plain text navigation through operations and alarms, events and items are presented by name.

EliteX can also be used by the installer to access a limited range of Inception's configuration options. The keypad's 8 indicator LEDs can also display a real-time status of the security system.

20309 EliteX LCD Terminal Keypad20307 Original Elite LCD Terminal Keypad (Ivory)20308 Original Elite LCD Terminal Keypad (White)



# **Cabinet Options**

The Inception metal cabinets are sturdy universal cabinets designed to house a wide range of Inner Range products.



22001 Inner Range Inception Controller in Standard Cabinet with Chassis



22002 Inner Range Inception Controller in Large Cabinet with Chassis



22003 Inner Range Inception Controller in Mega Cabinet with Chassis





SPECIFICATIONS			
Case Material:	ABS plastic		
Dimensions:	205mm x 94mm x 36mm		
Shipping Weight (gross):	1.2kg		
Installation Environment:	0°C - 50°C @ 15% - 90% relative humidity (non-condensing)		
Power Source:	18V to 24vDC 2.5A (e.g. the supplied 24V 2.5A PSU)		
- To "DC IN" (recommended):	Note: A 12V. SLA Battery of 7AH to 18AH capacity must be connected to 'BATT' input.		
- To "BATT" (alternate method):	12.8V to 14vDC 2.8A (e.g. a separate external battery-backed power supply)		
	Note: "DC IN" should not be connected when powered to via the BATT connection.		
Battery (supplied separately):	12 Volt Sealed Lead-Acid (gel) type - 7 to 18 Amp-Hour		
Idle Current Consumption:	Note: Does not include battery charging or current required by any peripheral devices.		
- DC IN: (24V DC)	60mA (85mA with Ethernet connected)		
- BATT: (DC IN = 0V)	110mA (150mA with Ethernet connected)		
Additional Current Required For:			
- Built-in Relays: (out 1 - out 4)	25mA per relay (33mA when Controller powered from "BATT" input)		
- Inception Wi-Fi Adapter:	25mA (40mA when Controller powered from "BATT" input)		
- Inception 4-Port USB Hub:	20mA (40mA when Controller powered from "BATT" input)		
	Not including current required by any device connected to a USB Port		
Typical Battery Backup Time:	With Ethernet of Wi-Fi + 1 LCD Terminal + up to 200mA for other devices.		
- 7 AH Battery:	16 Hours		
- 18AH Battery:	40 Hours		
- 18AH Battery:	24 Hours Configuration as above but up to 500mA for other devices		
Power Supply Outputs:	See notes 1 & 2 below		
- V OUT:	13.4vDC +/- 150mV 1A max		
- LAN +:	13.4vDC +/- 150mV 1A max		
- READER +:	13.4vDC +/- 150mV 1A max		
- USB 2.0:	5vDC 500mA max		
- Maximum Combined Current - All Outputs:	2.5 A		
Battery Charger Output Vottage:	13.75vDC / Output Current: Up to 500mA		
Typical Battery Backup Time (7Ah battery):	16 hours (with controller connected to Ethernet or Wi-Fi with 1 x Elite keypad		
-	and up to 200mA for other devices such as PIR's or readers, etc)		
AC Fail Detect (on "DC IN"):	16.5vDC / Low Battery Detect (on "BATT" input): 11.0vDC		
Output Fuses:	Individual PTC protection - self-resetting		
Battery Input Fuse:	7A onboard fuse - non-replaceable		
Battery Deep Discharge Protection	Activated: 10.4V / Restored: 12.5V		
Zone Inputs:	8		
Relay Outputs:	4 ("OUT1-4")		
Relay Contact Rating:	5A 30vDC or AC (see note 2 below)		
Indicator LED's:	11		
Alarm Reporting Formats:	ContactID or OR-fast (via T4000 or SkyTunnel)		

NOTES:

1. Please refer to the respective product data sheets for details of power supply current requirements of the accessories and expansion modules that may be powered from the Inception controller power supply.

2. A separate external battery-backed power supply may be required for devices connected to the Inception controller if the current required is in excess of the maximum current allowed for that output, or causes the maximum combined output current specification to be exceeded.



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