integriti

INTEGRATED SOLUTIONS

Access Control | Intruder Detection | Security Management

www.innerrange.com

inner range

Intelligent Security Solutions

30 CELEBRATING YEARS OF INNOVATION

Europe Product Catalogue 18

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inner range

Intelligent Security Solutions

Inner Range have been designing and manufacturing integrated Security and Access Control systems for 30 years. Today there are more than 140,000 installed Inner Range systems delivering state-of-the-art solutions to corporations, government departments and institutions all around the globe.

Westfield, FOXTEL, LINFOX, ArcelorMittal, Australia Post, pwc, Jetts, Telstra, ALDI, Roche, Virgin australia, Ernst & Young, IKEA, ANZ, Maserati, bhpbilliton, DHL, Makita, Ports of Auckland, Western Sydney University, ACU Australian Catholic University, Sydney Cricket & Sports Ground Trust, HB Reavis Real Estate, energex, MAXIMA, Swisse, lendlease, mirvac, Arion Bank, lonely planet, ROLEX, Derwent London, Millennium bank, Financial Ombudsman Service

All these organisations rely on their Inner Range systems, great and small, to secure and manage their critical assets.

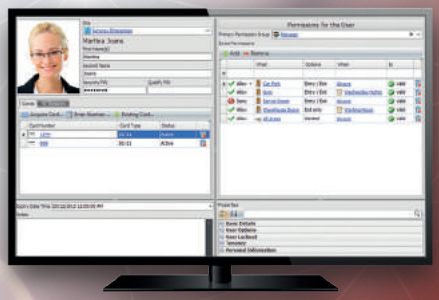
The Inner Range research centre in Melbourne, Australia is home to a large engineering and product development team which is supported by an even larger complement of dedicated test engineers, trainers and IT technical support specialists.

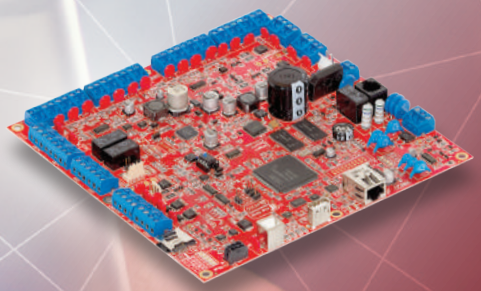
The Inner Range Europe facility in Reading, UK provides marketing, and product supply for this region as well as technical support services in that time zone.

Inner Range products are sold around the world by a network of authorised distributors who are committed to standards of service that reflect Inner Range's commitment to excellence.

Certified System™
Quality
ISO 9001
SAI GLOBAL

DESIGNED IN AUSTRALIA





The Integriti System

Integriti is an IP-connected integrated Access Control and Intruder Detection system which is modular and scalable by design. This means that Integriti is well suited for security applications in small commercial buildings through to large multi-campus institutions or enterprises that span the globe.

In addition to Integriti's powerful Access Control & Intruder features, a vast array of powerful interfaces to third party systems is also possible. The Integriti application becomes the control centre and hub of all interconnected sub-systems, thereby allowing the user to manage their entire security operation through the one intuitive desktop application.

The Integriti system can also be managed using web based interfaces and even mobile devices such as tablets or smart-phones.

The Integriti Technology Platform is the result of more than 25 years of continuous industry participation and product development by the people at Inner Range.

Integriti has set new industry standards and can offer real solutions in today's exciting yet demanding technology environment.

Features at a glance ...

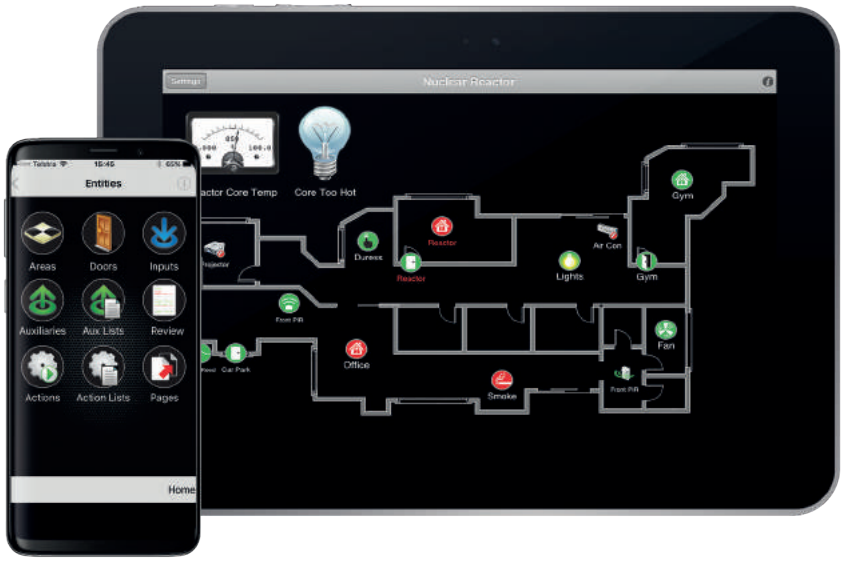
- Modern design, intuitive and simple to use.
- Build cardholder profiles by assigning multiple permissions with simple "Allow" or "Deny" functions.
- Complete alarm management with powerful automated actions.
- Rich graphics with vector scalable interactive floor plans and maps.
- Forensic audit trail recording every programming change with the ability to "roll-back" any change.
- Email, SMS text messaging and pager communications.
- Easy-to-use reporting such as Time on Site, Muster and detailed commissioning reports.
- Integration with Active Directory, HR, payroll and other database applications.
- PhotoID card design and printing.
- Client/Server architecture, fully compatible with modern computing platforms using Microsoft SQL databases.
- Web interface for card-holder programming and basic monitoring and control of the system.
- Integration with a wide range of third party systems.
- Plug-and-play UniBus for easy in-cabinet expansion.
- Upgrade firmware for Controllers and LAN modules over-the-wire.
- Backwardly compatible with Concept LAN modules.

Apple and Android Apps

The Integriti Mobile Apps pack a powerful punch of accessibility and control for your Integriti Security and Access Control system. With the tap of a finger, these exciting Apps allow remote operation of your Integriti system from anywhere in the world!

ANDROID APP ON Google play

Available on the App Store



http://www.innerrange.com/pd/Integriti-System/Mobile-Applications/Integriti-Mobile

integriti Benefits of Integriti

Simplicity of Use

Large or small, everyday use of the Integriti system is simple. Unlock doors, turn on or off security areas all by simply presenting a card at a reader or by using the colour graphic keypad. Manage the entire system via intuitive Windows® based software.

Scalability

Integriti is perfect for small sites through to large multi-campus institutions. Only pay for what you want when it's needed; Integriti's flexible modular design means it grows with demand as required. And because it's an IP-based networked solution, utilise new or existing I.T. infrastructure for boundless connectivity.

Affordable on any Scale

Integriti delivers a state-of-the-art solution with tangible cost savings through its integrated Security, Access Control and Building Automation functionality.

Contemporary Design - Inner Range SIFER Card Reader & Keypad

Use the Integriti system to:

- Monitor and control the movement of all personnel and vehicles in the facility. Protect critical assets and manage the safety of staff and visitors.
- Easily assign access permissions mandating who can go where and when, including visitor access.
- Manage the reporting of security alarms and audit their responses.
- Ensure compliance with business policies and government regulations.
- Respond to emergency situations, lockdowns and alerts.
- Manage WHS liability by leveraging competency-based access control permissions.
- Remotely monitor and control the Integriti system with iOS and Android Apps.
- Manage the entire security operation from a single user interface. With Integriti acting as the complete Integrated Security Management System (ISMS), integrate a variety of security sub-systems, such as CCTV, Biometrics, Mobile Duress, Lighting, Air-Conditioning, Intercom, Fire and much more.

Software

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INTEGRATED SOLUTIONS

The Integriti System Management Suite is a true cutting-edge solution. Featuring the very latest technologies, Integriti has been designed with an innovative and user-friendly design as its core focus.

Integriti Professional offers everything your customer will need for complete system management. Integriti includes two applications:

- Integriti **GateKeeper** for everyday card-holder programming, monitoring and control of the system.
- Integriti **System Designer** for full system programming and configuration.

Optional Web Client Interface and Smartphone Apps are also available.

Integriti Professional

Integriti Professional may be deployed on any number of local or remote sites. Individual sites retain their functional autonomy, while system users and permissions are managed globally across the entire organisation. Integriti Professional also supports a wide range of integration options to existing HR systems and a variety of third-party products.

Integriti Express

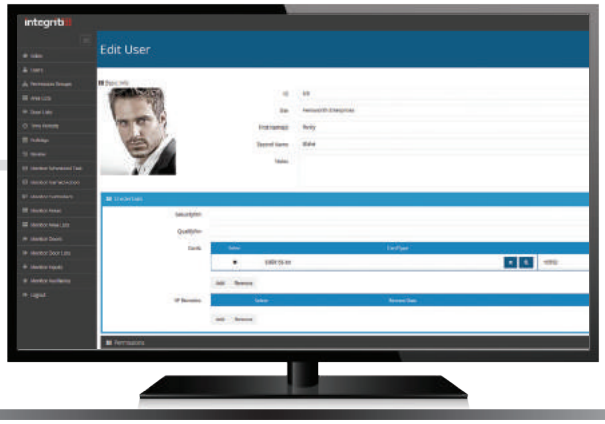
An Express version of Integriti is available for smaller single-controller sites. This is a great solution where the advanced features of the Professional version are not required.

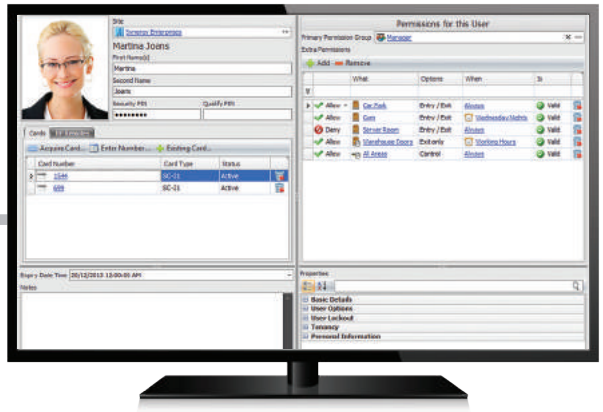
Integriti Commissioning Software

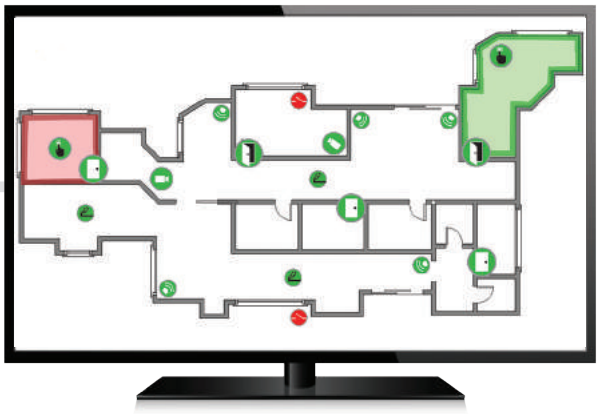
Commissioning Software (CS) is also available for security technicians who are installing and commissioning Integriti systems. CS is provided to trained Inner Range security technicians.

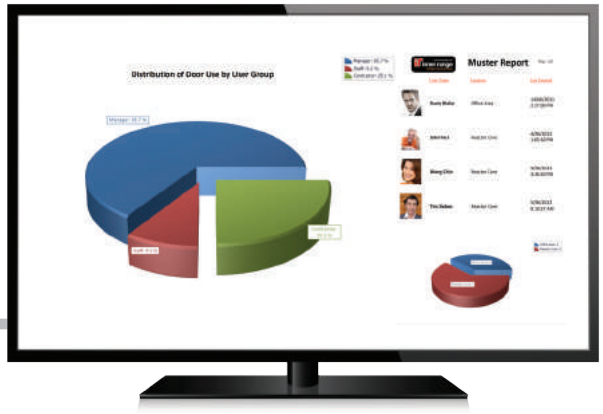
Software features at a glance ...

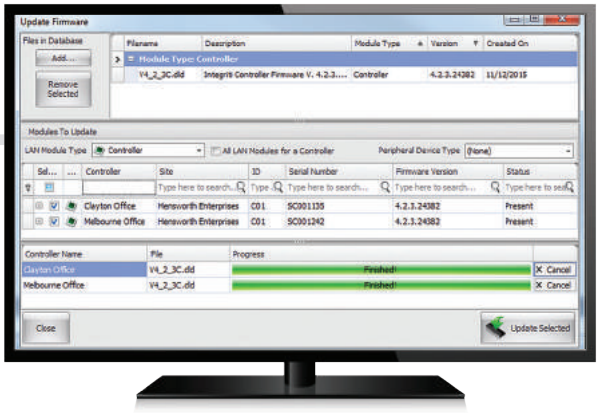
- Web Client Interface.
- Programming and commissioning time significantly reduced via automated processes.
- Build cardholder profiles by assigning multiple permissions with simple "Allow" or "Deny" functions.
- Modern design, intuitive and simple to use.
- Complete alarm management with powerful automated actions.
- Rich graphics with interactive floor plans and scalable vector based maps.
- Forensic audit trail recording every programming change with the ability to "roll-back" any change.
- Email, text message and pager communications.
- Easy-to-use reporting such as Time on Site, Muster and detailed commissioning reports.
- Integration with Active Directory, HR, payroll and other database applications.
- Upgrade firmware for all Integriti hardware modules.
- Client/Server architecture, fully compatible with modern computing platforms using Microsoft SQL databases.
- Integration with other systems: CCTV, Intercoms, Building Automation, Personnel Tracking, Mobile Duress and many more. Use Integriti as an over-arching Security Management System for complete control of security and facility services.

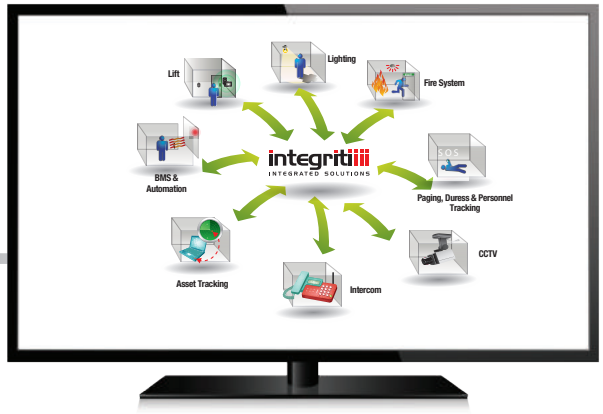

Edit User


Permissions for this User
Martina Joens




Distribution of Door Use by User Group
Muster Report


Update Firmware
Files in Database
Add...
Remove Selected
Modules To Update
Close
Update Selected


Lift
Lighting
Fire System
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BMS & Automation
Paging, Duress & Personnel Tracking
CCTV
Asset Tracking
Intercom

integriti

THE SOFTWARE

Professional - Included Features

Integriti Professional includes a powerful suite of tools and features that are standard as part of the base package, such as:

User/Cardholder Management

The incredibly flexible user permissions provide an easy-to-use, building block method of assigning access and security rights to cardholders. Cardholder profiles are easily created by assigning multiple permissions with simple "Allow" and "Deny" functions.

Data Importation

Import cardholder data from third-party systems.

Basic Reporting

Single-click reporting to review the areas cardholders have accessed, what areas cardholders have access to, search event and alarm history, programming history and much more. Easily export reports in a variety of common file formats.

System Health Monitoring

Monitor the health of both the Integriti hardware and software. Proactive notifications can alert security operators and security contractors if maintenance is required.

Schematic Maps

Rich graphics with interactive scalable vector based floor plans and maps. Effortlessly create maps using the built-in library of animated icons.

SkyTunnel Connectivity

SkyTunnel is an industry-first cloud-based service that provides hassle-free connectivity of Integriti hardware, software and mobile apps.

Security and Alarm Management

Complete alarm management with powerful automated actions.

Intuitive Design

The Integriti System Management Suite is a true cutting-edge solution. Integriti boasts a contemporary and intuitive design that is simple to use and easy to learn.

Operator Permissions

Manage the operators that use Integriti software. Easily customise and define their access permissions levels with fine control.

System Designer and GateKeeper Applications

System Designer is used for all aspects of system programming and configuration. GateKeeper is a dedicated application to simplify day to day monitoring and control of the Integriti system.

Integriti Professional Product Key - **INTG-996901**

The Integriti Professional Product Key is the base requirement and all system expansion options and additional features are applied to this Product Key.
The following base level options are included with the initial Integriti Professional Product Key:

1. Connection of one Client Workstation (run on server or a desktop machine)
2. Connection of one Integriti Controller (ISC or IAC)
3. Connection of the first 16 Doors

System Expansion Options

Additional software licences may be applied to expand system capacity.

Additional Workstation/Client (FIXED) - **INTG-996910**

This option allows an additional Integriti client workstation to connect to the Integriti server where the Integriti client is fixed to a designated workstation. This licence is a cheaper way of connecting an additional workstation where the same user stays logged on for long periods of time.

Additional Workstation/Client (FLOATING) - **INTG-996911**

This option allows an additional Integriti client workstation to connect to the Integriti server where the Integriti client is not fixed to any particular workstation. This means that multiple users can connect to the Integriti server on different workstations but only one user at a time. A small number of these licences can be used as a pool for a large group of users where each user only requires access for a short time.

Web Client Connection/Additional Web Client - **INTG-996908**

The Web client is a mobile friendly responsive interface which provides access to the Integriti server using a standard web browser on desktop or mobile devices. This licence allows a single login session from a web browser. For multiple simultaneous sessions additional licences are required.

Additional ISC/IAC Controller - **INTG-996912**

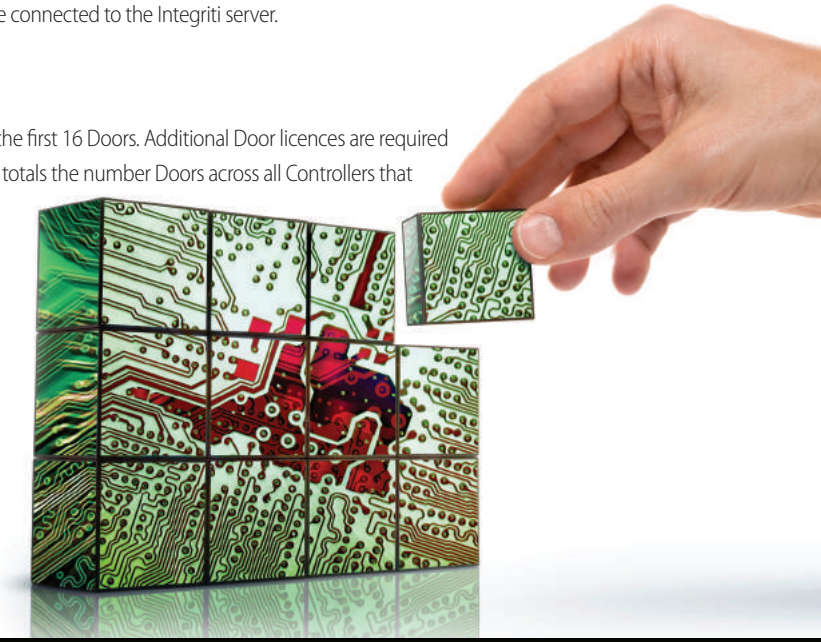
This licence allows additional Integriti ISC/IAC Controllers to be connected to the Integriti server.

Allow Unlimited IAC Controllers - **INTG-996912IAC**

This single licence allows an unlimited number of IAC Controllers to be connected to the Integriti server.

Additional Door - **INTG-996940**

The base package of Integriti Professional includes the connection of the first 16 Doors. Additional Door licences are required (per door), where more than 16 Doors are needed. The Integriti server totals the number Doors across all Controllers that are connected to the server.



Allow Remote RDP Connections - **INTG-996909**

This licence is required to comply with the terms of the Integriti End User Licence Agreement (EULA) if remote desktop applications such as Windows® Remote Desktop or TeamViewer etc. are being used with the Integriti software.

Optional Features

The optional features listed below allow the Integriti installation to be tailored to the customer's requirements.

Smartphone-Server Interface - **INTG-996926**

This licence allows Apple or Android devices using the Integriti Mobile App to connect to an Integriti Server. This provides a global perspective of the entire security system, particularly useful in multi-controller installations. One Smartphone-Server interface licence is required for each Controller that is online.*

Each Smartphone-Server interface licence allows up to 5 simultaneous user connections with each user being allocated a connection slot for a fixed 7 day period which starts from their last successful login. If a user has not logged in within a 7 day period their slot may be used by another user.
The Smartphone-Server and hardware based Smartphone-Controller interfaces work independently of each other and are licenced separately.
Please see page 24 of the Product Catalogue for Smartphone-Controller Interface.
**The Smartphone service is only enabled where the number of Smartphone-Server interface licences is equal to (or greater than) the number of online Controllers.*

CCTV Integration - Initial 32 Cameras - **INTG-996920**

The CCTV Integration licence allows various CCTV systems to be integrated into Integriti software and is licenced on a per camera basis. This initial CCTV Integration licence allows integration of up to 32 cameras, irrespective of the CCTV brand chosen. Please see Inner Range website for a list of compatible CCTV vendors and their respective integration capabilities.

CCTV Integration - Extra 8 Cameras - **INTG-996921**

This licence allows expansion of the CCTV integration by an additional 8 cameras per instance of this licence.

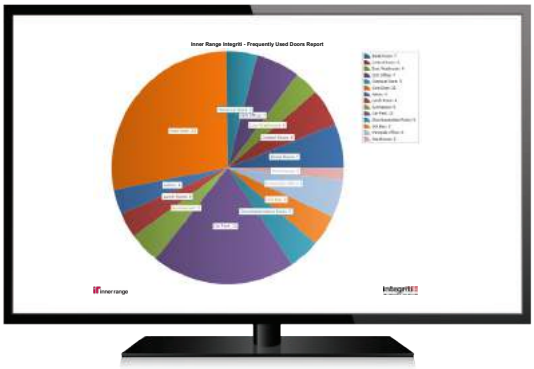
Optional Features

Licence Plate Recognition Integration - **INTG-996966**

Licence Plate Recognition Integration allows licence plate numbers, captured via a compatible CCTV system to be used as user credentials to provide access to carparks, entry gates and boom gates. A compatible CCTV system sends a licence plate recognition event to the Integriti server, where it is processed as a virtual card badge in the same way as a user presenting a card to a reader. This allows advanced access control features such as anti-passback, area control, operator challenge, user permissions and conditional access to be used on vehicle licence plates as cars enter a facility.

Compatible CCTV systems include Milestone, Hikvision, Hikvision iVMS and Axxon Next.

Advanced Reports - **INTG-996923**



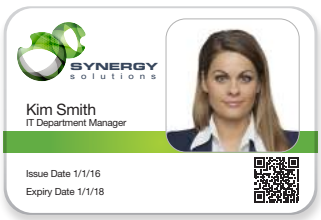
While the base package of Integriti Professional includes some basic reporting functionality, the Advanced Reports feature enables customers to generate highly flexible, more detailed and graphical based reports.
A large number of sample Advanced Reports come standard, such as Time on Site, Muster, User Access History and much more. For the technically minded, these sample reports can be used as templates to customise and generate other reports according to the needs of the customer. Alternatively, Inner Range offers a professional report writing service with quoted prices varying according to the complexity of the client's requirements.

Communicator - Email, SMS & Pager Communications - **INTG-996930**

This licence allows messages to be sent from the Integriti server, either manually or automatically, using the various communication paths available.

- E-mails: Specify an SMTP mail server.
- SMS Text Messaging: Connect to Clickatell or Message Media commercial web based SMS providers using a pre-opened account. These SMS providers will charge for their service and any associated costs are between the service provider and account holder.
- Pager: Connect to a pager server using the TAP over IP protocol.

PhotoID Card Design - **INTG-996922**



This licence allows the customised designing and printing of PhotoID access cards. In addition to this software licence, PhotoID printing will always require the use of a compatible third party card printer (supplied by others).

Enterprise Optional Features

The following optional features deliver enterprise level functionality. Some of these features may be more complex to specify or deploy. It is, therefore, Inner Range's recommendation that security professionals consult with the Inner Range sales or support team to assist with the sales or deployment process.

User Qualification Manager - **INTG-996924**

This licence is intended to facilitate the implementation of various WHS criteria by enforcing the currency and renewal of user specific qualifications and permits, before access to designated areas will be allowed by the system. Both time-based and credit-based qualifications are supported.

Advanced Alerts - Alarm Escalation, Response Plans & Operator Challenge - **INTG-996925**

This licence is intended for use by on-site guards and security managers. It allows a framework within the Integriti software to escalate designated alarms to specific operators and tailor and implement response plans for specific situations. It also enables operator challenge by guards in response to photo pop up on an access event as well as an assortment of other alarm management functionality.

Guard Tour Manager - **INTG-996927**

The Guard Tour Manager is a configurable framework where guard tours can be created, scheduled and monitored in real time.

The application offers a high amount of flexibility in the creation of steps, tasks, actions and warnings for each tour. Progress of guard tours can be monitored in real time via Integriti's graphical map interface and via live video feeds from an integrated CCTV system. Warnings and alarms can also be raised where the timing or the expected sequence of events within a tour has not been met. Reports can also be generated providing full detail of active and completed tours.

Intercom Integration - **INTG-996932 | INTG-996932CG**

Intercom integration allows operators to manage intercom calls through Integriti software. Calls may be answered, forwarded, initiated and closed, to name just a few. Calls appear within the dedicated Intercom Call Queue display in Integriti as well as allowing intercoms to be placed on Integriti maps for ease of control. To date, the following intercoms have been integrated:

• **Aiphone IX Series** • **Jacques** • **Stentofon** • **Commend** • **CellGuard**

CellGuard Intercoms require the INTG-996932CG licence option*.
Aiphone GT Series Intercoms are integrated via a hardware module - see 994210 on page 66*.
Hikvision Intercoms are integrated as a CCTV system - see INTG-996920 on page 11*.
IIS/Kenwei Intercom integration - see UniBus UART on page 57*.

*The INTG-996932 Intercom integration software licence option is not required for integration of these intercoms.

Dynamic User Import Module (DUIM) - **INTG-996955**

This licence allows for users created in another application, to be automatically imported into the Integriti software with a predefined set of permissions. It also provides for the automatic modification or deletion of users in the Integriti software if those users are modified or deleted in the other application. User data is easily imported via a CSV file transfer from the third party system.

EkoTeK User Location System Integration - **INTG-996928**

EkoTek is a wireless mesh technology that provides accurate location of alarm signals to identify user location. EkoTek is primarily used as a Duress/Lone Worker location system but also features two way paging that can be integrated* to Integriti System Designer. Integration of the EkoTek system and Integriti allows EkoTek receivers to be associated with Locations and Areas in Integriti and can provide live and accurate location updates for Integriti Users. User or Area/Location Alerts for Personal Security alarms generated by EkoTek can be raised and all events from the EkoTek system are logged to Integriti review. User locations (Tag-board) can be displayed in real time using Area or User filters within the Integriti Gatekeeper application.

Requires an additional licence:* ***Communicator - Email, SMS & Pager Communications - INTG-996930* *- see page 12*

Enterprise Optional Features

Inner Range Mobile Reader Application - **INTG-996907**

The Inner Range Mobile Reader application is an Android smart-phone app that allows security personnel to visually view and verify cardholder details with a simple scan of a user's access card. The Mobile Reader can be used for on-the-spot identity verification, suspension of access rights and as a "check-in" reader for emergency mustering assembly points. (See page 17 for full details)

Application Layer High Availability (HA) Solution - **INTG-996965**

The Integriti Application Layer High Availability Solution allows Integriti servers to be deployed in a high availability, fault tolerant business continuity environment. The HA Solution uses multiple Integriti servers which are cryptographically paired to create a highly secure fault tolerant multi-server network. Integriti client workstations and controllers can connect to any available Integriti server within the network, therefore minimising potential system downtime and data loss. The solution allows for multiple servers within one location or split-site deployments where off-site disaster recovery solutions are required. The HA Solution can also be used in conjunction with Microsoft Windows Server Failover Clustering (WSFC) and Microsoft SQL database clustering to create an entirely fault tolerant enterprise level high availability solution.

Active Directory Integration (Users) - **INTG-996957**

This licence allows the synchronisation of Users in the Integriti software with the same Users in Windows Active Directory. New Users and changes to Users in the Active Directory database are pushed down into the Integriti database in accordance with mapping tables pre-configured using an import configuration tool in the Integriti software. The integration is also bi-directional such that user changes made in the Integriti software can be written back to Active Directory. This effectively means that Users need only be entered into one system, therefore reducing operational and training costs, saving time and improving data consistency.

Active Directory Integration (Operators) - **INTG-996958**

This licence enables Active Directory operator integration for Single Sign-On (SSO). Integriti operators are not required to enter an Integriti login username and password as their credentials will be validated with Active Directory based on their Windows login. The Single Sign-On authentication delivers fast and efficient use of the Integriti application. As a further benefit, Active Directory can provide comprehensive password management, including adherence to any global password policies that may have been deployed by the organisation.

Event Review I/O Communications - **INTG-996931**

This software module is in effect a TCP/IP or serial based bi-directional gateway to other systems. This licence allows the Integriti software to send a selected subset of Integriti event data to third party applications. It also allows the Integriti software to receive, process and action event data received from third party systems. The mechanism for this transaction is via an ASCII based text stream.

Milestone Access Control Manager (ACM) Integration - **INTG-996939**

Integriti's high-level interface with Milestone's ACM is IP-based and bi-directional. ACM integration allows Milestone to be the single master "head end" security management platform, whereby Integriti functions as an access control and security sub-system. Cardholder information, alarms and events, as well as door and area statuses in Integriti, are sent in real-time to Milestone. Operators are therefore empowered to effectively manage their security operation by seamlessly monitoring Integriti alarm and access points through Milestone. Operators may also unlock/lock doors and control areas with the added ability to associate doors and areas to cameras in Milestone, thus facilitating efficient situational awareness and immediate visual verification of alarms.

Enterprise Optional Features

Biometric Reader Integration - **INTG-996936**

Integration between Integriti Software and Biometric reader management systems allows data such as user names and access permissions to be communicated from Integriti to the Biometric system software. To date, the following Biometric Reader systems have been integrated:

- **Safran Morpho Manager**

RightCrowd Enterprise Integration - **INTG-996962**

RightCrowd software offers industry leading Workforce and Visitor Management solutions suitable for enterprises of any size. Integriti provides a high-level IP-based interface supporting bi-directional synchronisation of users, permission groups, qualifications and review event data. As a powerful access control system integrated with RightCrowd, Integriti will form an integral part of an overall workforce management strategy physically ensuring compliance with government and organisational policies and procedures. The integration empowers organisations to easily implement complex operational requirements such as Safety and Fatigue Management, Inductions, Competencies, Visitor Management, Contractor Tracking and much, much more. RightCrowd's flexible package options will suit any operational and budgetary requirements.

Visitor Management Integration - **INTG-996935**

This licence allows a Visitor Management system to push user/visitor information into the Integriti database. The Visitor Management system, therefore, can be the single front-end interface for enrolling visitors with no need to use the Integriti software for such tasks. User/visitor information can include the name, PIN number, card number, access permissions and a variety of other fields. To date, the following Visitor Management systems have been integrated:

- **HID EasyLobby**

Locker/Key Locker Integration - **INTG-996934 | INTG-996934TRK**

This licence enables a bi-directional integration with various Locker/Key Locker systems. The integration facilitates user database synchronisation between Integriti and the Locker system as well as receiving alarms from the Locker system to leverage Integriti's powerful alarm management capabilities. To date, the following Locker systems have been integrated:

- **C.Q.R.iT (by CIC Technology)**
- **KeyWatcher (by Morse Watchmans)**
- **Traka (by Assa Abloy - Requires INTG-996934TRK licence)**

Schindler PORT Lift High-Level Interface - **INTG-996933**

This licence is required to facilitate a high-level lift interface with the Schindler PORT lift system. This interface provides a specific set of functionality and consultation with the Inner Range pre sales team is therefore required.

Inner Range offers high-level lift integration to various vendors other than Schindler however these integrations are enabled in the Integriti hardware controllers with the use of smart card licences. Please consult with the Inner Range pre-sales team for any high-level lift inquiries. Also see page 24 of the Product Catalogue for other lift vendors.

SNMP & System Health Monitor - **INTG-996960**

The SNMP & System Health Monitor is designed to alert IT administrators to a number of critical runtime errors that may occur with Integriti or associated SQL server instances. The application provides support for SNMP servers and allows various aspects of the following Integriti functions to be monitored: Active Directory Service, Database, Inner Range IP - Server - Controller communications (IRIP), Reports, Remote Procedure Call (RPC), Scheduler, and Server Services. The SNMP interface is bi-directional, allowing Integriti to generate SNMP traps (alarms) to be received by an SNMP manager or conversely, SNMP traps from third party systems can be sent to Integriti to be processed by Integriti's powerful alarm management sub-system.

Enterprise Optional Features

Stanley Real-Time Location System (RTLS) Integration - **INTG-996961**

Integriti's high-level integration with Stanley's RTLS "MobileView" platform is IP-based and unidirectional. Stanley's Real-Time Location System is a powerful tracking system that can be used for a plethora of purposes, such as Live Personnel Tracking, Asset Tracking, Mobile Duress, Mother-Baby Tagging, Patient Wandering and much more. Alarm and event information is sent from MobileView into Integriti where Integriti can process the information in its alarm management infrastructure and display events within Integriti schematic maps (live personnel tracking display not supported in schematic maps, only status conditions).

Salto XS4 Integration (SHIP Interface) - **INTG-996941**

Integration to the Salto XS4 (SHIP Interface) allows the synchronisation of users and access permissions between the Integriti system and the Salto XS4 system. The Integriti server provides the head-end control for the entire system allowing a single point of administration for all events, users and doors, including traditional hardwired doors and Salto offline/wireless locking devices located on the Salto XS4 network. Locking devices within the Salto XS4 system can be integrated with Integriti on a per door basis.

VingCard Integration - VingCard as Master - **INTG-996937**

VingCard is a system often deployed to provide access control for guests checking into rooms in hotels or apartment complexes. In facilities such as these, the Integriti system is also deployed to provide real-time monitored access control for the base building elements such as elevators, staff doors, service doors and car parks. Integration between VingCard and Integriti allows user card data to be sent from VingCard to Integriti, allowing guest or tenant access to doors managed by Integriti (such as lifts, perimeter doors, etc.). A single licence will allow synchronisation of 500 active VingCard user cards. Where more than 500 cards are required additional licences should be ordered.

Active User Rotation Module (AURM) - **INTG-996956**

This licence is used when there are more users in the software than can be accommodated in the hardware Controllers (i.e. over 100,000). This licence will only operate if all of the Controllers connected to the Integriti software have already been upgraded to level 4. If this licence is deployed and a user presents their card to any reader in the system, but that user record cannot be found in the database of the local Controller, the Controller will interrogate the Integriti server to see if the user exists in the software database. If the user is valid in the software database, then access is granted immediately, and that user and their permissions are downloaded to that specific Controller overwriting the oldest user in that Controller.

The hardware based Level 5 User Expansion Kit is capable of storing 1,000,000 users on ISC/IAC Controllers. See Page 23 for details (Part INTG-996002L5)

XML API Integration

An XML licence is a mechanism which allows a third party software writer to create a software product which can access the database of the Integriti software directly. This is done through a controlled XML/REST portal in the Integriti software designed specifically for this purpose. XML (Extensible Markup Language) is an IT industry standard language/protocol for the transmission of data between software applications.

XML licences can only be purchased after a Technology Partner Agreement has been executed by Inner Range and the potential developer. An application to become a Technology Partner with Inner Range can be made using the appropriate application form and requires a binding disclosure of the scope and purpose of the integration. Any XML interface licence issued can only be utilised for the purpose defined in the partner agreement.

XML Interface - READ - **INTG-996950** | XML Interface - WRITE - **INTG-996951** | XML Interface - CONTROL - **INTG-996952**

Enterprise Optional Features

Inner Range Mobile Reader Application - **INTG-996907**

The Inner Range Mobile Reader is an Android smartphone application that allows security personnel to view and verify cardholder details with a simple scan of a user's access card. Mobile Reader can be used for on-the-spot identity verification, suspension of access cards and as a "check-in" reader at emergency mustering assembly points.

Mobile Reader Main Features

- **User Identification & Location Check:** On presentation of a valid card, Mobile Reader displays the user photo, user location, card status and additional user and card information. The information displayed can be configured from the Integriti server to include any user properties, card properties and custom fields such as Employee ID, Student ID, and Department.
  Mobile Reader can be set to the specific location or area where the smartphone is located. When user information is displayed, the user's location will be displayed in red if it does not match the device location. This allows security personnel to identify users that may have entered areas without authorisation.
- **Suspending Cards:** If a user doesn't match the cardholder photo, security personnel can immediately suspend the card from the Mobile Reader application. The suspended card will no longer provide access to any doors until reactivated from the Integriti server.
- **Emergency Muster:** In the event of an emergency, Mobile Reader can be used as a "check-in" reader at an emergency mustering assembly point. The operator can select a muster point location and areas that are being evacuated. Multiple smartphones running Mobile Reader can be used collaboratively during an emergency evacuation.
  As users present their cards at the "check-in" reader, their location is updated to the muster point. In muster mode, the app displays the number of users still inside the evacuation areas, the number of users at the muster point and the total number of users at all muster points.
  Mobile Reader provides a scrollable list of all users still inside an area or building as well as their last known location. Additionally, an operator can search for users by name to quickly determine their last known location. Access to this critical information provides emergency services with accurate information for a focused and timely response.

User Verification Features

- Display user photo, user location, card status and additional user and card information
- Display user and card custom fields
- Verify user location against device location
- Suspend user access cards

Muster Features

- Functions as a "check-in" reader at emergency mustering assembly points
- Supports multi-device coordinated mustering
- Selectable muster location
- Selectable evacuation areas and locations
- Dynamically displays the number of users still inside the evacuation areas, the number of users at the muster point and the total number of users at all muster points
- Scrollable list of users still inside the evacuation areas and their last known location
- User name search

Application Features

- Supports username and password login or biometric fingerprint login
- Displayed user and card information is configurable from the Integriti server
- Areas and locations can be grouped into Location Lists for site-wide mustering

Requirements

- Integriti Professional V18.1 or newer
- Android V7.0 Nougat or newer
- Smartphone with NFC capabilities
- Supports Inner Range SIFER and HID MIFARE DESFire© EV1 & EV2 cards.**
- Inner Range Mobile Reader – INTG-996907 is licenced per mobile device connected to the Integriti server. Connected devices can be managed, activated or deactivated from the Integriti server.

**Requires SIFER Enrollment Station to identify card serial numbers of SIFER credentials.

Ordering Options

INTG-996907
Inner Range Mobile Reader Application
(one required per smartphone)

Mobile Reader inner range

ANDROID APP ON Google play

integriti

THE SOFTWARE

Express / Commissioning Software

Integriti Express Product Key - **INTG-996905**

Integriti Express is a budget focused software solution for Small and Medium Business's (SMBs).
Express is a great option for sites that do not need the advanced features of the Professional version.
The following base level parameters are included with the Integriti Express Product Key:

1. Connection of one Client Workstation where the client workstation and server are the same machine
2. Connection of one Integriti Controller (ISC or IAC)
3. Support for up to 16 Doors

Some of the features included with Integriti Express:

User/Cardholder Management
The incredibly flexible user permissions provide an easy-to-use, building block method of assigning access and security rights to cardholders. Cardholder profiles are easily created by assigning multiple permissions with simple "Allow" and "Deny" functions.

System Health Monitoring
Monitor the health of both the Integriti hardware and software. Proactive notifications can alert security operators and security contractors if maintenance is required.

Basic Reporting
Single-click reporting to review the areas cardholders have accessed, what areas cardholders have access to, search event and alarm history, programming history and much more. Easily export reports in a variety of common file formats.

SkyTunnel Connectivity
SkyTunnel is an industry-first cloud-based service that provides hassle-free connectivity of Integriti hardware, software and mobile apps.

System Designer and GateKeeper Applications
System Designer is used for all aspects of system programming and configuration. GateKeeper is a dedicated application to simplify day to day monitoring and control of the Integriti system.

Intuitive Design
The Integriti System Management Suite is a true cutting-edge solution. Integriti boasts a contemporary and intuitive design that is simple to use and easy to learn.

Operator Permissions
Manage the operators that use Integriti software. Easily customise and define their access permissions levels with fine control.

Upgrade to Integriti Professional - **INTG-996905UPG**
Express can be upgraded to Integriti Professional at any time.

Audit Trail
The amazingly powerful forensic audit trail records every programming change made by all operators and provides the ability to "roll-back" to any change in the past.

Express software provides one connection to an Integriti Controller supporting up to 16 doors and can be used only on a single computer workstation. Express offers all the essential functionality required to configure, administer and monitor a single Integriti system. Full operator permissions are provided for added security and Integriti Express can be upgraded to Professional if and when further expansion is required.

Commissioning Software

Integriti Commissioning Software (CS) is a software application designed to be used by installation technicians when they are installing and commissioning Integriti Controllers.

CS can be used to bench program Controllers prior to deployment and to train and familiarise technicians with general Integriti programming techniques.

The Integriti CS application is available as a yearly expiring licence to approved technicians only. This approval is usually granted after appropriate factory accreditation has been undertaken successfully and a level of competency with the Integriti platform has been certified by the Inner Range training department.

integriti Software Comparison

Features	Pro	Express	CS
User Management, System Programming, System Status, Programming History (Audit Trail)	✔	✔	✔
Hassle Free IP Connection with SkyTunnel. *a.*	✔	✔	✔
Software Operator Permissions	✔	✔	✖
GateKeeper – A Dedicated Application for Daily End User Operations	✔	✔	✖
Support for Multiple Workstations / Clients. *b.*	✔	✖	✖
Web-based Client for Desktop or Mobile Devices (Responsive). *b.*	✔	✖	✖
Support for Multiple Controllers. *b.*	✔	✖	✖
Schematic Graphical Maps with Scalable Vector based graphics	✔	✖	✖
Alarm Management	✔	✖	✖
Smartphone-Server Interface. *b.*	✔	✖	✖
Advanced Reports. *b.*	✔	✖	✖
Communicator - Email, SMS & Pager. *b.*	✔	✖	✖
Photo ID Card Design. *b.*	✔	✖	✖
User Qualifications Manager. *b.*	✔	✖	✖
Advanced Alarm Management, Alarm Escalation, Response Plans & Operator Challenge. *c.*	✔	✖	✖
SNMP & Health Monitor. *b.*	✔	✖	✖
Active User Rotation Module (AURM). *b.*	✔	✖	✖
Application Layer High Availability Solution. *b.*	✔	✖	✖
Inner Range Mobile Reader Application. *b.*	✔	✖	✖
Guard Tour Manager. *b.*	✔	✖	✖
Upgradeable to Integriti Professional. *b.*	-	✔	✖

Integration Features	Pro	Express	CS
CCTV Integration. *b.*	✔	✖	✖
CCTV Licence Plate Recognition Integration. *b.*	✔	✖	✖
Biometric Reader Integration. *b.*	✔	✖	✖
Intercom Integration. *b.*	✔	✖	✖
Dynamic User Import Module (DUIM). *b.*	✔	✖	✖
Active Directory Integration (Users and Operators). *b.*	✔	✖	✖
Event Review I/O Communications. *b.*	✔	✖	✖
RightCrowd Enterprise Integration. *b.*	✔	✖	✖
Visitor Management Integration. *b.*	✔	✖	✖
Lift Integration. *b.*	✔	✖	✖
KeyLocker Integration. *b.*	✔	✖	✖
VingCard Integration. *b.*	✔	✖	✖
Salto XS4 Integration. *b.*	✔	✖	✖
Stanley Real-Time Location System (RTLS). *b.*	✔	✖	✖
EkoTeK User Location System. *b.*	✔	✖	✖
Milestone Access Control Manager (ACM). *b.*	✔	✖	✖
XML Integration (Technology Partner Program). *b.*	✔	✖	✖

Software Dimensions	Pro	Express	CS
Number of Controllers Supported. *d.*	1 ~ No Limit	1	No Limit
Number of Simultaneous Controller Connections. *d.*	No Limit	1	1
Number of Doors Supported	16 ~ No Limit	16	240
Controller Operating Level Expansions Supported	All	All	All *e.*
Permitted Software Use	End Users	End Users	Installers Only

a. - SkyTunnel provides non-permanent connections between Integriti Controllers, Integriti software and the Integriti Mobile App.

b. - Optional expansion or feature purchased separately.

c. - Basic alert functionality is included as standard with the Professional version. However, advanced alert functions such as Response Plans, Alert Escalations, Alert Reporting and Operator Challenge requires the optional Advanced Alert feature - purchased separately.

d. - Depending on the size and activity level of the system multiple servers may be required to support extremely large numbers of Controllers.

e. - CS supports all levels if connected via USB or Level 0 only if connected remotely via PSTN or Ethernet. The "Allow CS Remote Connection" 12 month subscription licence removes this restriction and permits remote connections from CS software for any level smart card.

Hardware

integriti
INTEGRATED SOLUTIONS

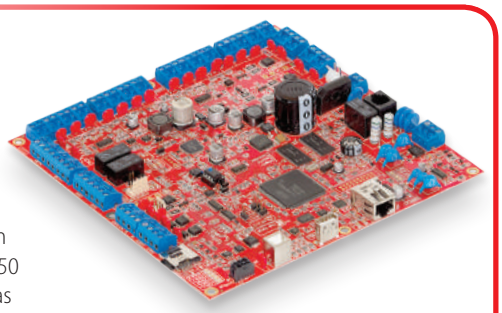
Three main hardware components make up an Integriti system:

1 - Controllers

2 - Field Modules *(via RS-485 or IP LAN)*

3 - Local Expansion Devices *(via UniBus)*

Integriti Security Controller (ISC)

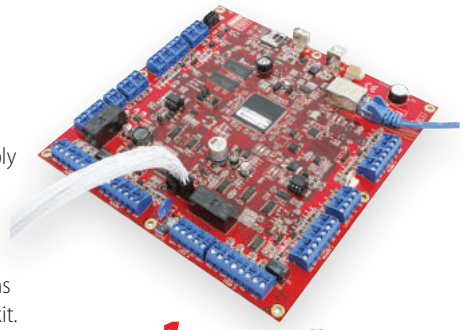


The Integriti Security Controller is a state-of-the-art IP-based integrated Security and Access controller with powerful embedded processors and extensive on-board memory. The ISC is equipped with 16 Zone Inputs, 2 Auxiliary Relay Outputs, Power Supply with Smart Fuses, Siren and Watchdog Outputs, Ethernet, USB and Modem ports. The ISC can be used both standalone or expanded further via its local UniBus and RS-485 Sub-LAN ports.

The flexible, modular design of the ISC allows a single standalone Controller to be expanded to form a network of IP or RS-485 expansion modules supporting up to 3,000 Zone Inputs, 3,000 Outputs, 250 Areas and over 1,000 Card Readers and 240 Doors. User capacity of up to 100,000 users is available as a standard expansion option, and capacity for 1,000,000 users is also available with the User expansion kit. Part INTG-996002L5 see page 23. Peer to Peer communications between ISC controllers is also supported.

1 - Controller

Integriti Access Controller (IAC)

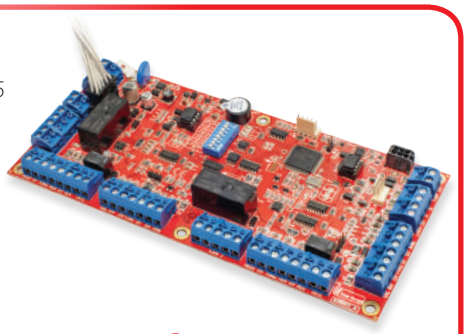


The Integriti Access Controller (IAC) is a state-of-the-art IP connected Intelligent Controller. Designed for Access Control applications, the IAC directly manages up to 8 doors locally or 240 doors via RS-485 Sub-LAN expansion. All decision making is intelligently processed by the Controller with no reliance on the system server (should the connection to the server be offline). The result is a solution that is incredibly quick, robust and highly available.

The flexible, modular design of the IAC allows a single standalone Controller to be expanded to form a network of IP or RS-485 expansion modules supporting up to 3,000 Zone Inputs, 3,000 Outputs, 250 Areas and over 1,000 Card Readers and 240 Doors. User capacity of up to 100,000 users is available as a standard expansion option, and capacity for 1,000,000 users is also available with the User expansion kit. Part INTG-996002L5 see page 23. Peer to Peer communications between IAC controllers is also supported.

1 - Controller

Integriti Intelligent LAN Access Module (ILAM)

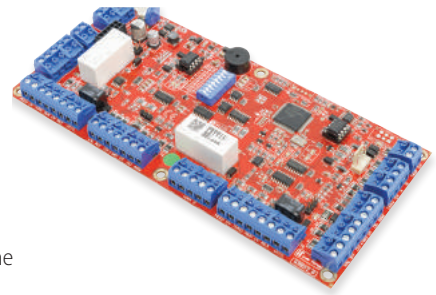


The ILAM can be used to control and monitor up to 8 Doors or Lift access readers on the Integriti RS-485 LAN, or via IP LAN if connected with CLOE modules (Part. 995093). The base module supports 2 Doors and 2 Wiegand Card Readers or 16 Inner Range SIFER Card Readers. The ILAM is expandable up to 8 Doors and 8 Wiegand Card Readers with the simple addition of UniBus 2 Door/2 Reader Expanders.

The ILAM offers a complete suite of programmable options to provide advanced high security access control, security area control and door alarm monitoring functions. Offline intelligence is also provided via the on-board database to provide access control functionality and event logging even if communications to the master Controller (ISC or IAC) are severed. Upon re-connection, all buffered events and any programming changes are automatically synchronised with the master Controller.

2 - Field Module

Integriti Standard LAN Access Module (SLAM)



The Integriti Standard LAN Access Module (SLAM) can be used to control and monitor up to 2 Doors on the Integriti RS-485 LAN, or via IP LAN if connected with CLOE modules (Part. 995093).

The module supports 2 doors and up to 4 Inner Range RS-485 SIFER readers to accommodate entry and exit readers on both doors. Alternatively, two Wiegand readers may be connected to allow control and monitoring of a single door with entry and exit readers, or two doors with a single reader each.

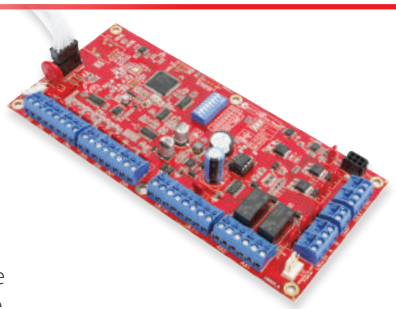
The SLAM offers cached functionality via its on-board database to provide offline access control operation for up to 2,000 user cards if communications to the master Controller (ISC or IAC) are lost. Cache expiry time for the module can be selected ranging from 1 hour to 4 months. In addition, each user has an option to be stored permanently within the modules cache, particularly useful for situations where certain staff may need to be guaranteed access at all times.

2 - Field Module

Integriti 8 Zone LAN I/O Expander (Expandable to 32 Inputs/Outputs)

The Integriti 8 Zone LAN Expander Module connects directly to the Integriti RS-485 LAN and provides an additional 8 Zone Inputs, 2 Auxiliary Outputs and 2 Siren drivers (Siren drivers fitted from PCB revision 'B'). Up to 99 Zone Expander Modules can be connected to the Integriti RS-485 LAN or via IP LAN if connected with CLOE modules (Part. 995093).

The 8 Zone LAN Expander Module also offers a UniBus in-cabinet expansion interface, allowing further expansion of Zone Inputs and Auxiliary Outputs using plug on UniBus expansion devices fitted within the same tamper-protected enclosure. Up to 32 Zone Inputs or 32 Auxiliary Outputs can be connected to the Module (32 Zones and 26 Auxiliaries or 24 Zones and 32 Auxiliaries simultaneously).



2 - Field Module

Integriti PrismaX Keypad

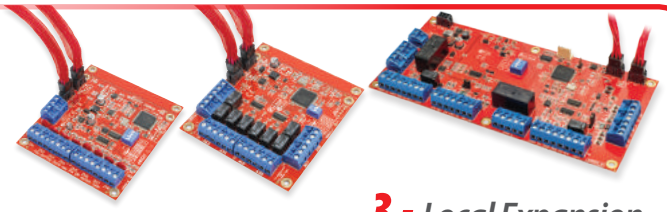
The Integriti PrismaX Keypad provides a stylish and simple keypad to control the Integriti system. End users can perform simple functions such as arming and disarming areas, locking or unlocking doors and reviewing event history via the full-colour graphic display. Installers also have the ability to program many of the major features of the Integriti system from the convenience of a PrismaX Keypad.

An optional SIFER reader add-on board can be fitted to the PrismaX keypad in order to support card access via the Keypad or high-security environments which require dual credential "card+PIN" access.

2 - Field Module

UniBus Expansion

UniBus is an innovative in-cabinet bus which allows the connection of Expansion devices, Communications devices and Door & Reader devices on a common Plug & Play bus. UniBus replaces the need for ribbon cables and specialised connectors.



3 - Local Expansion

Inner Range SIFER Smart Card Readers & Keypads

The SIFER Smart Card Reader is a multi-drop RS-485 reader for use with MIFARE® based cards, including the high-security Inner Range MIFARE® DESFire©® EV1/EV2 cards. SIFER readers and cards deliver AES encryption right through to the Access Module, offering far superior security than traditional Wiegand based readers. As SIFER readers utilise a superset of the OSDP protocol, the readers may also be deployed on any system capable of using OSDP. Up to 16 SIFER readers may be connected to the dedicated RS-485 reader port on the Integriti Intelligent LAN Access Module (ILAM) or the Integriti Access Controller (IAC) for full Reader-In and Reader-Out operation. Up to 4 SIFER readers may be connected to the Integriti Standard LAN Access Module (SLAM). SIFER readers and Keypads are IP67 rated and available with site-specific encryption keys.

3 - Local Expansion

SkyTunnel

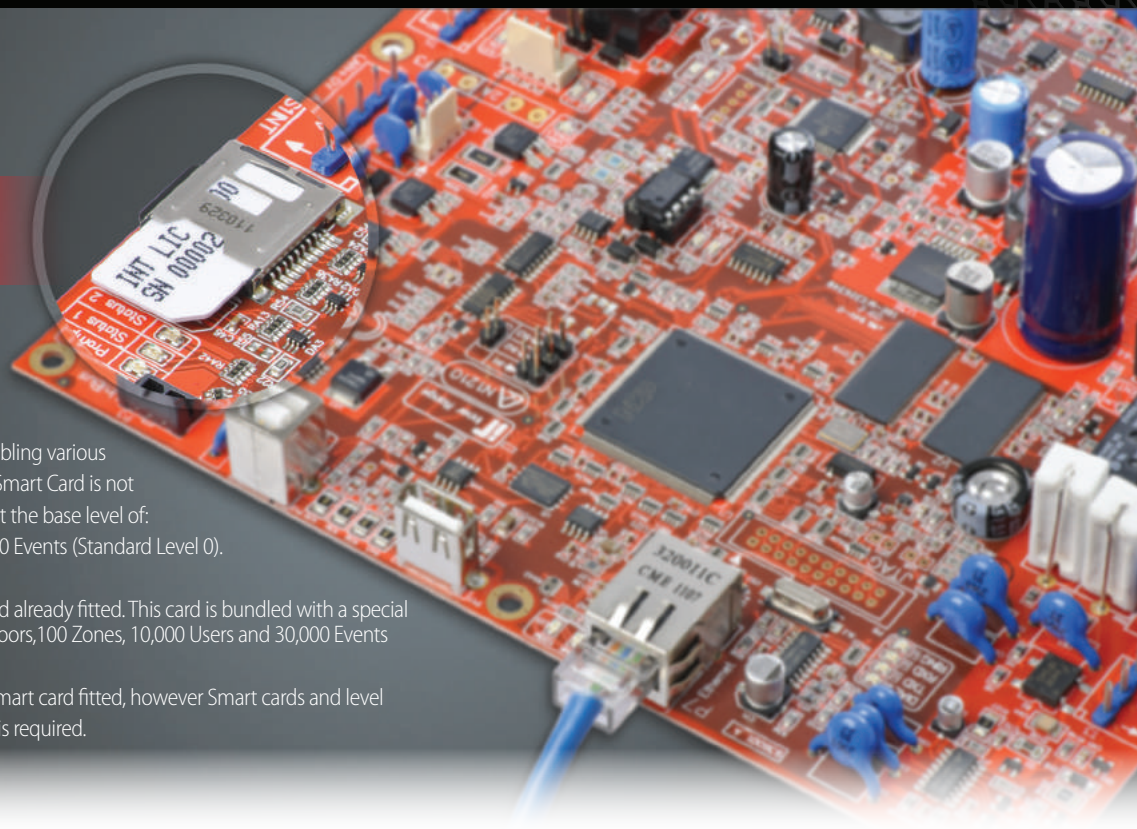
SkyTunnel is an industry-first cloud-based service that provides hassle-free connection of Integriti hardware, software and Integriti Mobile Apps over the Internet. No more wasted hours configuring routers and ports. The SkyTunnel service also allows Integriti Controllers to report alarms via IP directly to Multipath-IP or Patriot equipped monitoring centres without any additional STU hardware or PSTN connections.

integriti

DATA SHEET

Hardware Smart Card

Smart Card Levels



Smart Cards are employed in Integriti Controllers (ISC/IAC) as a means of setting the Controller's "Operating Level" dimensions and/or enabling various additional hardware feature options. If a Smart Card is not fitted to a Controller then it will operate at the base level of: 16 Doors,100 Zones, 200 Users and 10,000 Events (Standard Level 0).

The IAC Controller ships with a Smart Card already fitted. This card is bundled with a special "IAC Level 0" option which enables: 16 Doors,100 Zones, 10,000 Users and 30,000 Events

The ISC Controller does not ship with a Smart card fitted, however Smart cards and level upgrades are available where expansion is required.

Operating Levels for Integriti ISC/IAC Controllers

- Level 1 - **INTG-996020L1**
  40 Doors, 200 Zones, 2,000 (10,000*) Users, 20,000 (30,000*) Events
- Level 2 - **INTG-996020L2**
  80 Doors, 600 Zones, 10,000 Users, 30,000 Events
- Level 3 - **INTG-996020L3**
  160 Doors, 2,000 Zones, 65,000 Users, 60,000 Events
- Level 4 - **INTG-996020L4**
  240 Doors, 3,000 Zones, 100,000 Users, 100,000 Events
- Level 5 - **INTG-996002L5** *(Hardware expansion kit**)*
  240 Doors, 3,000 Zones, 1,000,000 Users, 100,000 Events

**10,000 users included as standard with IAC controllers only*
***A plug-on hardware based user expansion kit is required for Level 5 operation (Part# INTG-996002L5)*

Where a Controller already has a Smart Card fitted, the level can be upgraded or additional feature options applied at any time. The Smart Card does not need to be physically replaced, a licence is simply applied through the software, or locally via the keypad.

Level upgrades for the Integriti ISC/IAC Controllers

- Level 0 to Level 1 - **INTG-996020U01**
- Level 1 to Level 2 - **INTG-996020U12**
- Level 1 to Level 3 - **INTG-996020U13**
- Level 1 to Level 4 - **INTG-996020U14**
- Level 2 to Level 3 - **INTG-996020U23**
- Level 2 to Level 4 - **INTG-996020U24**
- Level 3 to Level 4 - **INTG-996020U34**

Integriti users are global entities, and every user in an Integriti system is synchronised to all enrolled controllers. Therefore, it is essential that all Integriti controllers in a multi-controller site have the same Smart Card level to accommodate the entire user database. The Level 5 INTG-996002L5 hardware expansion requires that all controllers be fitted with a Level 4 Smart Card.

Optional Features

Level 0 Smart Card (Blank Card) - **INTG-996020**

The level 0 Smart Card can store any of the optional feature licences listed below. The level 0 Smart Card should be used where it is not necessary to use a level 1 or greater Smart Card. A level 0 Smart Card can be upgraded to any higher level option at a future time.
(INTG-996020 is not required for IAC Controllers)

Allow CS Remote Connection (Subscription) - **INTG-996029**

The Allow CS Remote Connection licence allows an Integriti Controller (ISC/IAC) fitted with a level 1 or higher Smart Card, to be remotely managed by a security installer using the Integriti Commissioning Software (CS). Remote connections include TCP/IP, SkyTunnel and PSTN. Direct USB connection is not considered a remote connection. The Allow CS Remote Connection licence is an annual subscription.

Smartphone-Controller Interface - **INTG-996021**

This licence allows Apple or Android devices using the Integriti Mobile App to connect to an Integriti Controller (ISC/IAC).

Each Smartphone-Controller interface licence allows up to 5 simultaneous user connections with each user being allocated a connection slot for a fixed 7 day period which starts from their last successful login.
If a user has not logged in within a 7 day period their slot may be used by another user.

http://www.innerrange.com/pd/Integriti-System/Mobile-Applications/Integriti-Mobile

The hardware based Smartphone-Controller and software based Smartphone-Server interfaces work independently of each other and are licenced separately. ***Please see page 11 of the Product Catalogue for Smartphone-Server Interface.***

C-Bus Lighting High-Level Interface - **INTG-996027**

This licence will allow integration of a Clipsal C-Bus lighting control system to an Integriti Controller (ISC/IAC). Integration to C-Bus allows fully automated control of lighting systems for energy management and security purposes. The connection uses TCP/IP or RS232 serial between the Integriti Controller and the Clipsal Network Interface (CNI).

Automation (BMS) High-Level Interface - **INTG-996022**

The Automation high-level Interface allows an Integriti Controller (ISC/IAC) to connect to a 3rd party Home or Building Management System via a TCP/IP or RS232 serial connection. The interface uses a full-duplex ASCII based protocol delivering a flexible and easy to integrate solution. Integriti's Standard and Advanced level automation interface features are included with this option.

BACnet/IP & Modbus Integration - **INTG-996228B BACnet/IP | INTG-996228M Modbus**

For BACnet/IP this licence allows an Integriti Controller (ISC/IAC) to integrate with an Inner Range factory supplied Building Management System (BMS) gateway device. This licence can only be issued in consultation with the Inner Range pre-sales design team and their professional services will be required to program the interface. For Modbus this licence allows Integriti's built-in Modbus communications interface to be activated and configured by the system integrator without the need for consultation with the Inner Range pre-sales design team.

Elevator Management System High-Level Interface - **INTG-996023**

This licence allows an Integriti Controller (ISC/IAC) to integrate with a variety of lift manufacturers. This licence can only be issued in consultation with and through the Inner Range pre-sales design team and their professional services will be required to program the interface. Interface protocols available at the time of writing are KONE, OTIS and ThyssenKrupp, although not all models of each manufacturer are supported. Check with the Inner Range pre-sales design team before committing to any particular interface. (High-Level Schindler Lift Integration is achieved using a licence in the Integriti Software - see page 15 of the Product Catalogue)

Optional Features

Honeywell Fire Panel Integration - **INTG-996239**

There are two methods for integration with Honeywell fire systems: standard and advanced. The standard option (INTG-996239) is a simplistic "receiver" method which allows an Integriti Controller (ISC/IAC) to receive alarm events directly from the Honeywell fire panel's serial printer interface when they occur. This option is suitable to trigger alerts and actions within the Integriti system as they are received, however monitoring the real-time status of alarm points is not supported. Advanced integration makes use of the Inner Range Modbus INTG-996228M & Virtual Expander Module(s) Part INTG-996026 (requires the fire alarm panel to be fitted with a Honeywell Notifier Modbus gateway card). Integration via Modbus makes it possible to display the real-time status
(i.e. Alarm, Tamper, Enabled, Disabled, Offline, Online) of the fire panel points within Integriti schematic maps and process and send fire alarms & alerts via the Integriti system. For detailed technical information please refer to the Honeywell fire system integration guide.

High Security Fence IP High-Level Interface - **INTG-996025**

This licence will allow integration between an Integriti Controller (ISC/IAC) and a high security fence system. The integration allows the fence system to be monitored and controlled directly from the Integriti software. Dynamic fence icons may be used to graphically represent fence zones and other fence objects within Integriti's software schematics. To date, the following high security fence systems have been integrated:

- **Druid (by Nemtek)**
- **Intrepid (by Southwest Microwave)**
- **Forcefield / Sabra Fence (by ASF)**

Advanced Peer-to-Peer Functionality - **INTG-996030**

Peer-to-Peer describes the communication functionality that exists directly between Controllers without any dependency upon the Integriti server. This provides superior levels of continued operation in the event that the Integriti server is offline. Peer-to-Peer functionality is used to deliver the following features:

1. Controller to Controller alarm reporting. Alarms may be routed from multiple Controllers to a single Controller that can report the alarms to a monitoring station.

2. Global anti-passback. Allows door anti-passback logic to span doors that are connected to two or more separate Controllers.

3. Cross-Controller logic mapping. Allows conditional logic to operate across inputs, outputs and system objects resident on two or more separate

Controllers. Option 1 is included as standard in all Integriti ISC/IAC Controller. Options 2 & 3 are enabled with the INTG-996030 Advanced Peer-to-Peer licence in each Controller.

Virtual Expander Modules (Per Module) - **INTG-996026**

The Virtual Expander licence enables virtual expander modules to be added to Integriti Controllers (ISC/AIC) and is licenced on a per module basis. Each virtual expander module provides an additional 32 zone inputs and 32 auxiliary outputs to be used for logic/automation control. This negates the need to install physical expander modules where inputs and outputs are only used for logic control purposes.

Locker Bank Control - **INTG-996235**

Locker Bank Control allows an Integriti Controller (ISC/IAC) to control electronic locks in a logical fashion for various locker scenarios. The quantity of lockers per bank can be customised to suit the customer's requirements using one of three supported modes: 1 - Predefined Access Mode, 2 - Dynamic "One Per User" Mode. 3 - Dynamic "Unlimited" Mode, Locker bank functionality is used in conjunction with Integriti access control modules and card readers.

Aperio Door Integration (Per Door) - **INTG-996032** SimonsVoss Door Integration (Per Door) - **INTG-996033** Salto Sallis Door Integration (Per Door) - **INTG-996024**

This licence will allow Assa Abloy Aperio, SimonsVoss or Salto Sallis wireless doors to be integrated with the Integriti system hardware and is licenced on a per door basis. Up to 8 doors can be integrated per Integriti Access Controller (IAC) or Intelligent LAN Access Module (ILAM), or 2 doors with the Standard LAN Access Module (SLAM).

Controller Comparison Table

Main Controller Features	Security Controller	Access Controller
Power Supply On-Board (Powered with 16VAC)	Y	N[1]
Connector for External SMART PSU (13.75VDC PSU)	N	Y
Connection for Battery	Y	N
Detector Power Connections	Y	N
PSTN Dialler On-Board	Y	N[2]
Ethernet IP Reporting on Multipath-IP Network	Y	Y
General Purpose Zone Inputs	16	-
General Purpose Relay Outputs	2	-
Siren Driver Outputs (Speaker)	2	-
Door Lock Relay Outputs	-	2
DOTL Relay Outputs	-	2
Wiegand Reader Connection Ports	-	4
Valid Read Outputs	-	4
Invalid Read Outputs	-	4
Arm Input	-	4
Request Exit Input	-	2
Request Entry Input	-	2
Door Reed Input	-	2
Door Tongue Sense Input	-	2
Cabinet Tamper Input	1	1
Watchdog Output	1	1
UniBus Host	Y	Y
USB Ports	Y	Y
Ethernet Port	Y	Y
Serial Port (Port Zero)	Y	Y
RS-485 Module LAN Port	Y	Y
RS-485 Reader LAN Port	-	Y

Smart Card Levels & Licences Supported	Security Controller	Access Controller
IAC Level 0 Smart Card Fitted	N	Y - Includes 10,000 Users
Smart Card Fitted as Standard	N	Y
Support for Levels 1, 2, 3 & 4	Y	Y
Support for Level 5 User Expansion Kit (Allows 1,000,000 Users on-board)	Y	Y
Smart Card Additional Licences (All Types)	Y	Y

RS-485 Module LAN Expansion	Security Controller	Access Controller
Maximum Module Count on LAN	250	250
Maximum Modules of Any One Type	99	99
Integriti & Concept RS-485 Module Types Supported	All[3]	All[3]

Controller - UniBus Device Support	Security Controller	Access Controller
UniBus 8 Input Expander	Y - up to 2	-
UniBus 8 Relay Expander	Y - up to 4	Y - up to 4[4]
UniBus 2 Door Expander	-	Y - up to 3
UniBus RS-232 / RS-485 UART	Y - up to 4	Y - up to 4
UniBus 16 Floor Lift Interface	Y - up to 6	Y - up to 6
UniBus 4 Analogue		

[1] Use Integriti 3Amp or 8Amp SMART Power Supplies with IAC
[2] Use Peer-to-Peer to forward alarms to a dialler on an ISC. Alternately use a T4000 3G Communicator
[3] Older Concept modules may not be supported or original functions may differ. Concept Touchscreen not supported
[4] UniBus relays can be used for general purpose outputs when addressed to Aux 1~16 on IAC, and will mimic the Lock & DOTL outputs on doors 1-8 when mapped to Aux 17~32

integriti

DATA SHEET

Security Controller (ISC)

The Integriti Security Controller (ISC) is an IP-based master controller for the Integriti modular hardware system. Equipped with 16 Zone Inputs, 2 Auxiliary Relay Outputs, Power Supply, Ethernet Port, Modem, and Internal/External Siren outputs, the ISC can be used either stand-alone or expanded further via its UniBus and RS-485 Sub-LAN ports. The flexible, modular design of the ISC allows a single stand-alone controller to be expanded to form a network of IP or RS-485 expansion modules supporting up to 3,000 Zone Inputs, 3,000 Outputs, 250 Areas and over 1,000 Card Readers and 240 Doors. User capacity of up to 100,000 users is available as a standard expansion option, and capacity for 1,000,000 users is also available with the Level 5 User expansion kit. (Part. INTG-996002L5)

The ISC also offers a UniBus in-cabinet expansion interface where a variety of UniBus I/O and communications devices can be connected directly to the controller and housed within the same tamper-protected enclosure. Integriti's multi-controller architecture allows any number of ISC's to be combined within the Integriti software package to form a globally managed small, medium or enterprise sized system where the entire network of controllers is managed as a whole. This architecture allows for an infinite number of Readers, Doors, Areas, Zone Inputs and Outputs.

ISC Controller RS-485 LAN Expansion

Further expansion and functionality is realised with the addition of sub-LAN expansion modules which are connected to the Integriti Security Controller via the RS-485 LAN. These modules can also be connected via standard Ethernet networks using LAN over Ethernet modules. (Part. 995093 see page 69 of Product Catalogue).

Main Controller Features

- RJ45 - 10/100 Ethernet Port
- RS-485 Sub-LAN
- USB Master & Slave Ports
- UniBus In-Cabinet Expansion Interface
- Multipath-IP / GSM STU Port (Port Zero RS-232)
- 16 Zone Inputs - Multistate or Analogue
- 2 Auxiliary Output Relays & separate Watch Dog Output
- Dedicated Tamper Input
- Internal & External Siren Outputs
- RJ-12 PSTN Dialler/Modem Connection
- Intelligent Power Control via Smart Fuses
- 32 Bit ARM CPU with Real Time Clock
- 64 MB RAM / 4 GB Micro SD Memory
- Smart Card Slot (Smart cards are used for setting system dimensions)
- Firmware Upgrade via USB, LAN or Software

Ethernet Connected Services

- Connectivity to Integriti Software
- SkyTunnel® Cloud Services & Smart Phone connectivity
- Peer to Peer communications
- Automation Interface
- BMS / HVAC Integration
- EMS / Lift Access Control Integration

UniBus Device Compatibility Guide		UniBus Host Module			
		ISC	IAC	8 Zone Expander	ILAM
UniBus Device	8 Zone Expander	2	0	3	0
	8 Relay Expander	4	4	4	2
	2 Door / 2 Reader Expander	0	3	0	3
	16 Floor Lift Interface	6	6	6	6
	RS-232/RS-485 UART	4	4	0	0
	Analogue Expander	4	0	6	0
	2nd Network Interface Card	1	1	0	0

Hardware Expansion Capabilities

- Zone Inputs - Expandable to 32 via UniBus – 3,000 via RS-485 Sub-LAN
- Auxiliary Outputs - Expandable to 32 via UniBus – 3,232 via RS-485 Sub-LAN
- Doors – Expandable to 240 via RS-485 Sub-LAN
- Readers - Expandable to 1,584 via RS-485 Sub-LAN
- On-board User capacity -100,000 at Level 4, 1,000,000 with Level 5 User expansion kit fitted
- On-board Review Events - Expandable to 100,000
- Ports - RS-232 / RS-485 Serial Ports - Expandable to 8 with UniBus UART

Integriti ISC Standard Operating Level

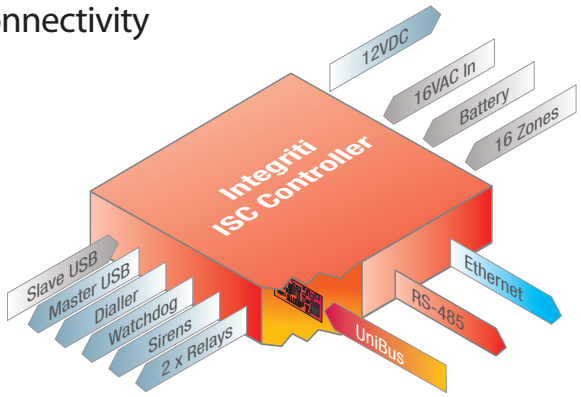
- 16 Doors, 100 Zones, 200 Users, 10,000 Events (Level Zero/no SMART card fitted)

ISC Operating Level Expansion Options

- INTG-996020L1 - Level 1 SMART Card: 40 Doors, 200 Zones, 2,000 Users, 20,000 Events
- INTG-996020L2 - Level 2 SMART Card: 80 Doors, 600 Zones, 10,000 Users, 30,000 Events
- INTG-996020L3 - Level 3 SMART Card: 160 Doors, 2,000 Zones, 65,000 Users, 60,000 Events
- INTG-996020L4 - Level 4 SMART Card: 240 Doors, 3,000 Zones, 100,000 Users, 100,000 Events
- INTG-996002L5 - Level 5 User expansion kit: 240 Doors, 3,000 Zones, 1,000,000 Users, 100,000 Events*
- See page 23-25 for full details on SMART card options

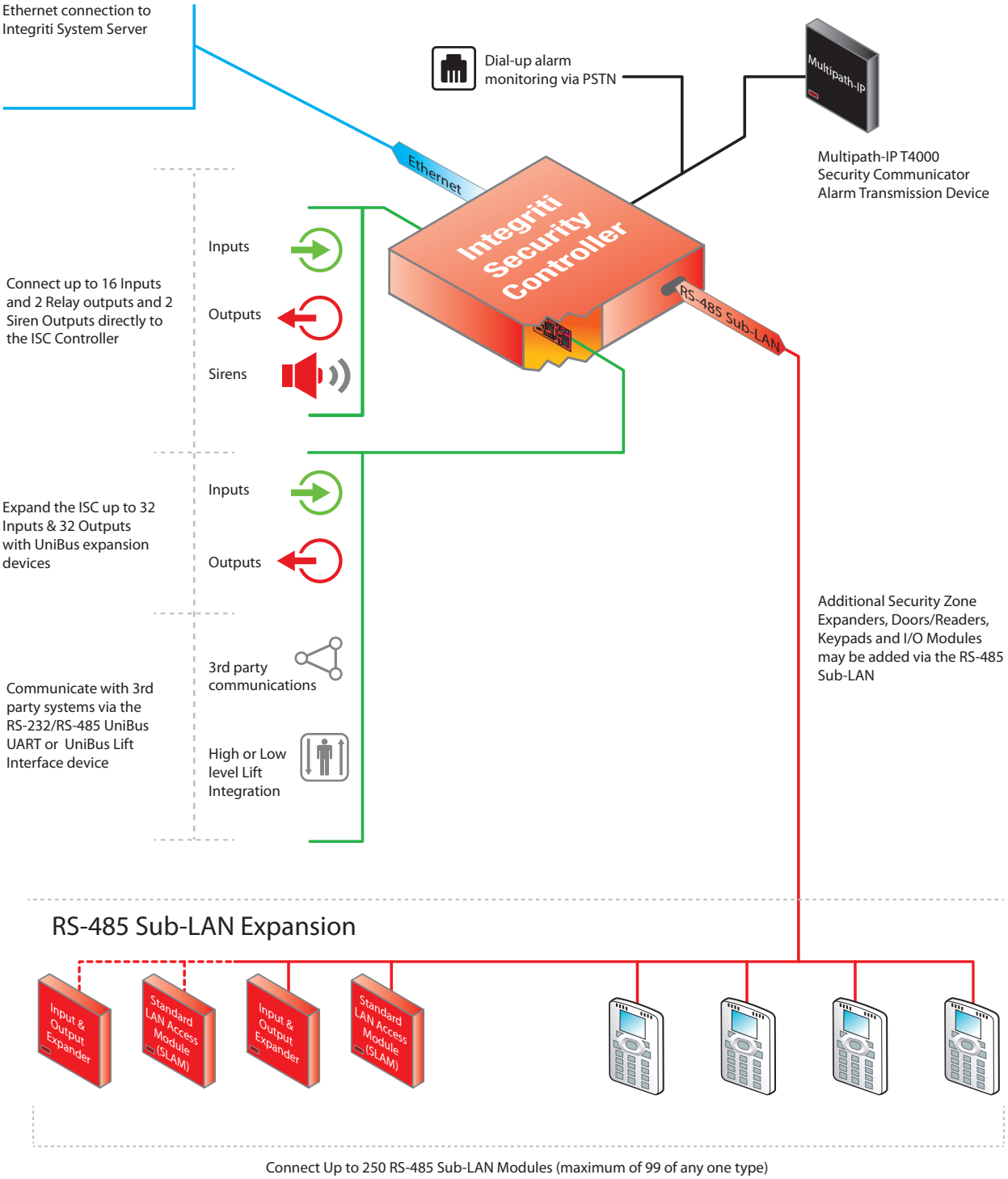
* Level 5 is a physical expansion kit which is attached to the ISC Controller. (The ISC must first be operating at Level 4)

Connectivity



Integriti Security Controller Architecture

The ISC directly supports up to 32 Inputs and 32 Outputs with further I/O expansion and access control via the RS-485 Sub-LAN



Connect Up to 250 RS-485 Sub-LAN Modules (maximum of 99 of any one type)

Specifications

Physical

Enclosure Dimensions:	Medium size enclosure 460(L) x 358(W) x 85(D) (mm)
PCB Dimensions:	200(L) x 200(W) x 45(D) (mm)
Weight:	8.2 k.g (Includes mains transformer, 7AH battery and cover)
Installation Environment:	0ºC - 50ºC @15% - 90% Relative humidity (non-condensing)
Cabinet Battery Bracket:	To suit 12V 7AH sealed lead acid battery

Electrical

Power Supply Type:	Type A (EN50131-1)
Transformer Input Voltage:	240V AC -10% / +10%. 50Hertz
Transformer Output:	16.5V AC. 50 Hertz
Current Consumption:	Maximum 500 mA from 240V AC Source
Fuse Protection:	Separate AC mains input fuse. 1.0 AMP Slow Blow M205 (20mm)
PCB AC Input Voltage:	16 to 18V AC. 50/60 Hertz
Battery Charger Output:	13.75VDC -0.15/+.05 V (AC power required)
12V, Sealed Battery Capacity:	Use 7.2AH or 18AH Lead Acid Type: Max 18AH
Battery Input Fuse:	5 Amperes
Low Battery Alarm:	< 11V DC +/- 100mV
Deep Discharge Protection:	Activates at 10.4 V +/-100mV. Restores at 12.4V +/- 100mV
LAN "POS" & DET+:	Output Voltage: 13.75V DC -0.15/+.05 V (When AC power Present)
LAN "POS" & DET+ Smartfuse trip current:	2 Amperes
Maximum Ripple:	At maximum ancillary load current: < 200mV P-P / 75mV RMS
Low DC Voltage Alarm:	< 11V DC +/- 100mV
Siren Drivers:	Each capable of driving a 4 Ohm speaker (or 2 x 8 Ohm in parallel)

RS-485 & UniBus Parameters

UniBus In-Cabinet Expansion:	Up to 6 UniBus devices
RS-485 Sub-LAN:	Up to 250 RS-485 Sub-LAN Modules (maximum of 99 of any one type)

Current Consumption

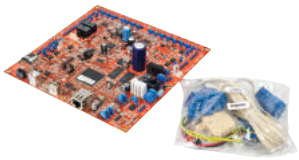
AC Source	JP5 Setting	Total Current Limit	Static Controller Current	Battery Capacity	Max Ancillary Current
1.5A Plug Pack:	Not shorted	1.3 AMP	275mA	7 AH	700mA
Transformer:	Shorted	2.2 AMP	275mA	7 AH	1.2A
Transformer:	Shorted	2.2 AMP	275mA	18 AH	480mA

Compliance

Electrical	CE TELEPERMIT
Environmental	RoHS

Ordering Options

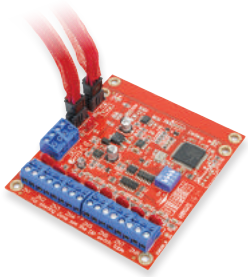
Integriti ISC in Medium Enclosure
INTG-996001EUPS – For Europe



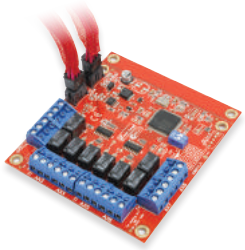
Integriti ISC PCB & Accessories
INTG-996001EUPCB&K – For Europe

Integriti SMART Cards
INTG-996020 - Blank SMART Card (Serialised)
INTG-996020L1 - Level 1 SMART Card
INTG-996020L2 - Level 2 SMART Card
INTG-996020L3 - Level 3 SMART Card
INTG-996020L4 - Level 4 SMART Card
INTG-996002L5 - Level 5 User Expansion Kit (Requires Level 4)

Ordering Options - UniBus Devices for ISC

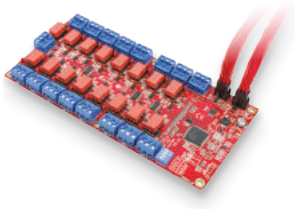


INTG-996500PCB&K
Integriti UniBus 8 Zone Input Expander PCB & Accessories (Includes 270mm UniBus patch cable)



INTG-996515PCB&K
Integriti UniBus 8 Relay Auxiliary Expander PCB & Accessories (Includes 270mm UniBus patch cable)

INTG-996520PCB&K
Integriti UniBus 2 Port RS-232/RS-485 UART PCB & Accessories (Includes 270mm UniBus patch cable)



INTG-996540PCB&K
Integriti UniBus 16 Floor Lift Interface device PCB & Accessories (Includes 270mm UniBus patch cable)

Spare UniBus patch cables
INTG-996791SS - UniBus Patch Cable 150mm
INTG-996791S - UniBus Patch Cable 220mm
INTG-996791L - UniBus Patch Cable 270mm
INTG-996791LL - UniBus Patch Cable 475mm
INTG-996791XL - UniBus Patch Cable 675mm

integriti

DATA SHEET

Access Controller (IAC)

The Integriti Access Controller (IAC) is a state-of-the-art IP connected intelligent Controller designed for Access Control applications. The IAC can directly manage up to 8 doors locally or up to 240 doors via RS-485 Sub-LAN expansion.
All decision making is intelligently processed by the Controller with no reliance on the system server (should the connection to the server be offline).
The result is a solution that is incredibly quick, robust and highly intelligent.
The main Controller is equipped with connections for 2 Doors and 4 Wiegand Card Readers, a Watchdog Output, Ethernet and USB ports and a dedicated RS-485 reader port. Additional connections for Doors and Wiegand Readers can be added via the IAC's UniBus port with up to 3 UniBus 2 Door/2 Reader expansion devices (Part. INTG-996535PCB&K), this allows for flexible configurations of 2, 4, 6 or 8 doors, and up to 10 Wiegand readers. The RS-485 Reader port accommodates up to 16 Inner Range SIFER or compatible third party OSDP multi-drop readers, providing 'in & out' directional access control for each door.
The IAC can also be used for integration of wireless door locking systems from Assa Abloy Aperio, SimonsVoss or Salto Sallis. *Please see our website for Wireless Locking system Integration Guides for more details.*
Larger systems may consist of many IAC's networked together to form an enterprise-wide IP connected intelligent access control solution. Each IAC can support up to 3,000 Zone Inputs, 3,000 Outputs, 250 Areas and over 1,000 Card Readers and 240 Doors. User capacity of up to 100,000 users is available as a standard expansion option, and capacity for 1,000,000 users is also available with the Level 5 User expansion kit. (Part. INTG-996002L5)

IAC IS NOW SHIPPING WITH 10,000 USER CAPACITY AS STANDARD

ABOVE:
IAC shown in 8 Door / 10 Reader configuration. (IAC with UniBus 2 Door / 2 Reader expansion devices connected). Housed in the WideBody enclosure with hinge plate, 8Amp PSU, Fire Door override relay card and 2x 17Ah batteries

UniBus Device Compatibility Guide		UniBus Host Module			
		ISC	IAC	8 Zone Expander	ILAM
UniBus Device	8 Zone Expander	2	0	3	0
	8 Relay Expander*	4	4	4	2
	2 Door / 2 Reader Expander	0	3	0	3
	16 Floor Lift Interface	6	6	6	6
	RS-232/RS-485 UART	4	4	0	0
	Analogue Expander	4	0	6	0
	2nd Network Interface Card	1	1	0	0

**Relays can be used for general purpose outputs when mapped to Aux 1~16 on IAC, and will mimic the Lock & DOTL outputs on doors 1-8 when mapped to Aux 17~32*

Main Controller Features

- 2 Door Interfaces (Lock Relays) expandable to 8 via UniBus
- Reader Port – Encrypted RS-485, Up to 16 SIFER Readers
- Reader Port – RS-485/OSDP, Up to 16 compatible OSDP Readers
- Wiegand Reader ports – 4, expandable to 10 via UniBus
- Aperio, SimonsVoss, Salto Sallis integration - up to 8 Doors via RS-485 Reader port
- 2 DOTL Relay Outputs, expandable to 8 via Unibus
- RJ45 - 10/100 Ethernet Port
- SkyTunnel/Multipath-IP Alarm reporting (via RS-232 STU device)
- Peer-to-Peer Dialler Alarm Reporting (via an ISC Controller)
- Advanced Peer-to-Peer Mode
- RS-485 Sub-LAN
- USB Master & Slave Ports
- UniBus In-Cabinet Expansion Interface
- Dedicated Watch Dog Output
- Dedicated Tamper Input
- 32 Bit ARM CPU, 64 MB RAM, 4 GB Micro SD Memory
- Firmware Upgrade via USB or Software
- Choice of 3Amp or 8Amp Power Supply and enclosure options
- Built-in module locater buzzer

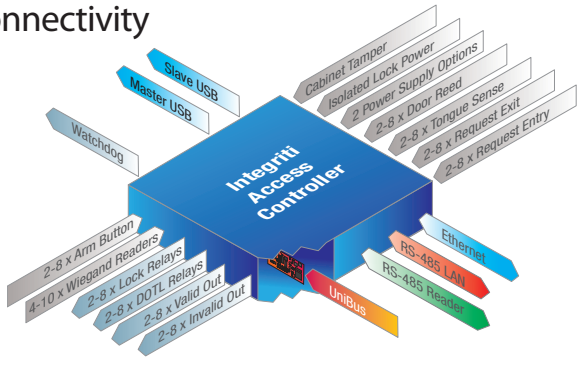
Integriti IAC Standard Operating Level

- 16 Doors, 100 Zones, 10,000 Users, 30,000 Events (IAC Level 0 standard option)**

IAC Operating Level Expansion Options

- INTG-996020L1 - Level 1 SMART Card: 40 Doors, 200 Zones, 2,000 (10,000*) Users, 20,000 (30,000*) Events
- INTG-996020L2 - Level 2 SMART Card: 80 Doors, 600 Zones, 10,000 Users, 30,000 Events
- INTG-996020L3 - Level 3 SMART Card: 160 Doors, 2,000 Zones, 65,000 Users, 60,000 Events
- INTG-996020L4 - Level 4 SMART Card: 240 Doors, 3,000 Zones, 100,000 Users, 100,000 Events
- INTG-996002L5 - Level 5 User expansion kit: 240 Doors, 3,000 Zones, 1,000,000 Users, 100,000 Events***
- See page 23-25 for full details on SMART card options

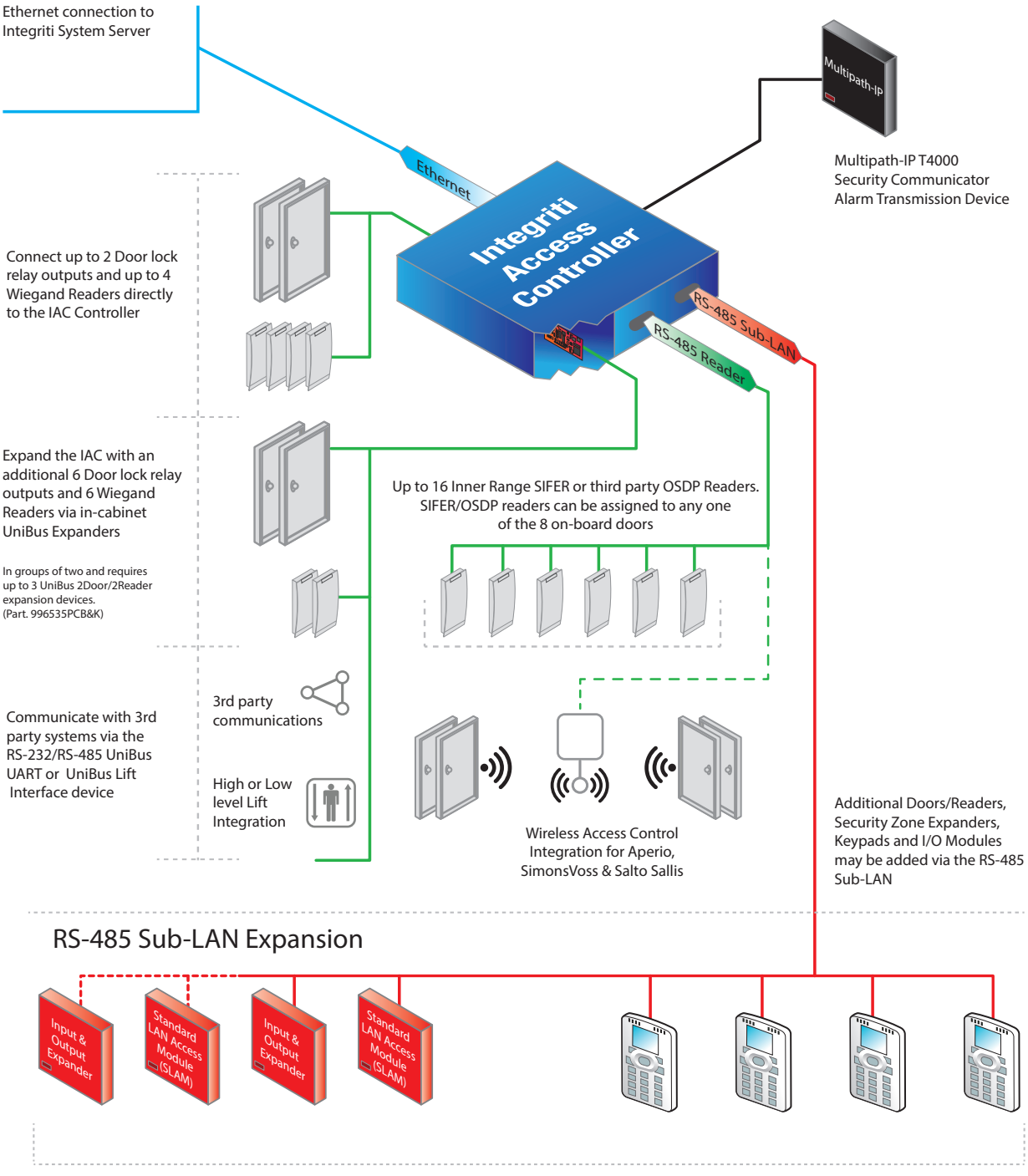
Connectivity



**The quantity show in brackets is only applicable to IAC Controllers as the "IAC Level 0" factory option has been bundled with the Controller as standard.*
***Where the Smart Card is removed or replaced with a standard Level 0 Smart Card the IAC will revert to 16 Doors, 100 Zones, 200 Users, 10,000 Events*
**** Level 5 is a physical expansion kit which is attached to the IAC Controller. (The IAC must first be operating at Level 4)*

Integriti Access Controller Architecture

The IAC directly supports configurations for 2, 4, 6 or 8 doors with up to 16 SIFER or OSDP Readers for both in and out access control on all doors



Connect Up to 250 RS-485 Sub-LAN Modules (maximum of 99 of any one type)

Specifications

Physical

Enclosure Dimensions:	Medium - 460(L) x 358(W) x 85(D) (mm): Part# 995201PE3 or 995201PE8 - houses 1 x INTG-996035+ 1 x INTG-996535*
	XLarge - 702(L) x 358(W) x 85(D) (mm): Part# 995203PE3 or 995203PE8 - houses 1 x INTG-996035 + up to 3 x INTG-996535*
	WideBody - 580(L) x 510(W) x 95(D) (mm): Part# 995204PE3 or 995204PE8 - houses 1 x INTG-996035 + up to 3 x INTG-996535*
	Rack Mount - 2RU 680(L) x 420(W) x 85(D) (mm): Part# 995220PE3 or 995220PE8 - houses 1 x INTG-996035 + up to 2 x INTG-996535*
PCB Size Code:	Integriti "A" size
PCB Dimensions:	200(L) x 200(W) x 45(D) (mm)
Weight:	8.2 k.g. (In medium enclosure including mains transformer, 7AH battery and cover)
Installation Environment:	0ºC - 70ºC @15% - 90% Relative humidity (non-condensing)

Electrical (For PCB Only)

Power Supply Input:	11V to 14VDC (from external Integriti 3Amp or 8Amp SMART PSU)
Current Consumption:	150mA standby, 220mA with on-board lock relays on, add 15mA for each active DOTL relay
NOTE: Current consumption does not include the current required by readers or other external devices such as locks, buzzers, lamps or any device attached to the DOTL, Valid, Invalid, RS-485 Reader and UniBus connections	
Reader Head Supply O/P:	5V/13.8V DC, 300mA maximum per reader, 1Amp max for all readers
Over Current Protection:	Reader +V connections. Protected with self-resetting PTC's
Typical Reader Current:	Allow 50~120mA for small Proximity Readers, 120~180mA for standard Proximity Readers (See reader datasheets for specific detail)
RS-485 Reader LAN Current:	Allow 75~150mA per SIFER reader connected

Contact Ratings

Lock Relays:	5 Amps @ 30VDC
DOTL Relays:	1 Amp @ 30VDC (Door Open Too Long output)

Connections

Ethernet:	10/100 Ethernet Port
USB Host:	USB type "A" connection
USB Slave:	USB type "B" connection
Port Zero:	5 Pin header for PC or Multipath-IP STU connection
Smart Card Slot:	For use with Smart Card (System Options Card)
Lock 1 & 2:	Includes Lock+, Lock-, NO/COM/NC
Door 1 & 2:	Includes Reed, 2 x 0v, Tongue, REN, REX, DOTL contacts
Wiegand Reader Ports x 4:	Includes Valid, Invalid, 0V, Reader+, D1, D0, ARM
Lock Power Input:	Includes Lock+, Lock- connections from external PSU
Cabinet Tamper:	2 pin connection for cabinet tamper switch
Watchdog Output:	2 pin connection for remote monitoring system
UniBus Port:	1 x UniBus Host expansion port for up to 6 local UniBus devices
RS-485 LAN:	1, Includes LAN+, LAN-, A, B. (LAN addressing set via DIP switches)
RS-485 Reader:	1 Includes LAN+, LAN-, A, B, Auto addressing for SIFER Readers
External Power:	10way header block for connection to Integriti power supplies

External Power Supply Monitoring (Compatible with IR SMART Power Supplies)

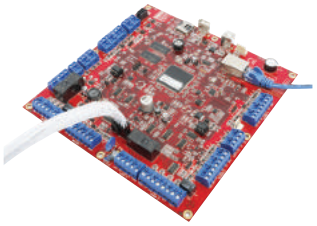
AC Fail:	External PS AC Fail
Low Battery:	External PS Low Battery
LAN Fuse:	External PS LAN Fuse
Detector Fuse:	External PS Detector Fuse
Low Volts:	External PS Low Volts
PSU Fail:	External PS Fail

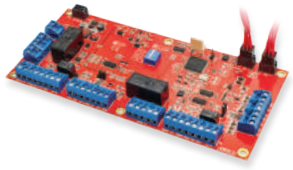
Compliance

Electrical	
Environmental	RoHS 

** Additional external power may be required for 3Amp models.*

Ordering Options





IAC Controller shown in 8 Door configuration.
Housed in a WideBody Enclosure with 8Amp SMART Power Supply & 3 x UniBus Door Expanders.
(IK-INTG-996035WB8PS Kit)

The optional Fire door emergency release relay card is also shown.
(Part INTG-995916)

Integriti IAC Controllers

INTG-996035PCB&K
Integriti IAC Controller PCB

UniBus Door Expander

INTG-996535PCB&K
Integriti UniBus 2 Door Expander PCB & Accessories
(Includes 270mm UniBus patch cable)

INTG-995201PEEU3

INTG-995203PEEU8

INTG-995204PEEU8

INTG-995220PEEU3

Enclosures to Suit IAC

Medium - INTG-995201PEEU8 with 8Amp SMART PSU *Houses 1 x INTG-996035PCB&K & 1 x INTG-996535PCB&K*

Medium - INTG-995201PEEU3 with 3Amp SMART PSU *Houses 1 x INTG-996035PCB&K & 1 x INTG-996535PCB&K**

Medium – INTG- 995201I empty enclosure only

XLarge - INTG-995203PEEU8 with 8Amp SMART PSU *Houses 1 x INTG-996035PCB&K & up to 3 x INTG-996535PCB&K*

XLarge - INTG-995203PEEU3 with 3Amp SMART PSU *Houses 1 x INTG-996035PCB&K & up to 3 x INTG-996535PCB&K**

XLarge - 995203 empty enclosure only

WideBody - INTG-995204PEEU8 with 8Amp SMART PSU *Houses 1 x INTG-996035PCB&K & up to 3 x INTG-996535PCB&K*

WideBody - INTG-995204PEEU3 with 3Amp SMART PSU *Houses 1 x INTG-996035PCB&K & up to 3 x INTG-996535PCB&K**

WideBody - 995204 empty enclosure only

WideBody - INTG-999027 hinged expansion plate kit to suit 995204

Rack Mount - INTG-995220PEEU8 2RU drawer with 8Amp SMART PSU *Houses 1 x INTG-996035PCB&K & up to 2 x INTG-996535PCB&K*

Rack Mount - INTG-995220PEEU3 2RU drawer with 3Amp SMART PSU *Houses 1 x INTG-996035PCB&K & up to 2 x INTG-996535PCB&K**

Rack Mount - 995220 empty enclosure only

INTG-996092EU

INTG-996091PCB&K

Power Supplies to suit IAC

INTG-996092EU 8Amp 13.75VDC SMART Power Supply Module, PSU only

INTG-996091PCB&K 3Amp 13.75VDC SMART Power Supply PCB & accessories

DATA SHEET

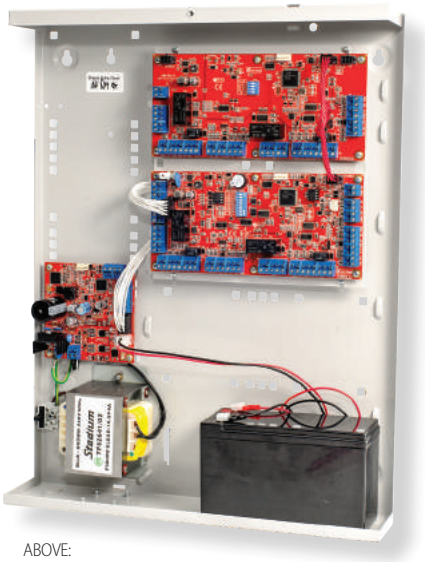
Intelligent LAN Access Module (ILAM)

The Integriti Intelligent LAN Access Module (ILAM) can be used to control and monitor up to 8 Doors or Lift cars on the Integriti RS-485 LAN, (or via IP using LAN over Ethernet modules - Part. 995093 see page 69 of Product Catalogue).
The base module supports 2 doors/2 readers and is expandable up to 8 doors/8 readers with the simple addition of 2 Door expander boards via the UniBus in-cabinet expansion interface.

The Integriti Intelligent LAN Access Module offers a complete suite of programmable options to provide advanced high-security access control, security area control and door alarm monitoring functions. Offline intelligence is also provided via the on-board database to provide access control functionality and event logging even if communications to the master controller are severed. Upon re-connection, all buffered events and any programming changes are automatically synchronised with the master Controller (ISC/IAC).

The ILAM is also used for integration of wireless door locking systems from Assa Abloy Aperio, SimonsVoss or Salto Sallis. Please see our website for Wireless Locking system Integration Guides for more details.

The power supply requirement is 11 to 14VDC and a range of Integriti plug on external 2Amp, 3Amp or 8Amp Switch Mode power supplies are available. The SMART 3Amp & 8Amp models are fully monitored via the Intelligent LAN Access Module.



ABOVE:

ILAM shown in 4 Door / 4 Reader configuration. (ILAM with UniBus 2 Door / 2 Reader expansion device connected) Housed in the Medium size 995201PE3 enclosure with 3Amp SMART Power Supply.

Integriti Intelligent LAN Access Module with UniBus In-Cabinet Expansion

- Up to 8 Doors
- Up to 8 Wiegand readers or 16 SIFER RS-485 Readers
- Up to 8 Lift cars

Features

- RS-485 LAN connectivity
- RS-485 Reader connectivity (up to 16 SIFER or third party OSDP Readers)
- Reader options to control Doors, Lifts, Areas and User Logon
- Supports Wiegand card readers up to 88bits
- Reader outputs with individual self-resetting overcurrent protection
- UniBus in-cabinet expansion interface
- Dedicated lock power input
- External Integriti power supply connection
- Full monitoring of external Integriti power supply
- Heavy duty lock relays
- Reader Valid & Invalid outputs
- Door reed & tongue sense inputs per door
- Door request to enter & exit inputs per door
- DOTL relay outputs per door
- Dedicated cabinet tamper input
- Small PCB size 200 x 95mm
- Over-The-Wire firmware upgradable
- Built-in module locater buzzer

UniBus Device Compatibility Guide		UniBus Host Module			
		ISC	IAC	8 Zone Expander	ILAM
UniBus Device	8 Zone Expander	2	0	3	0
	8 Relay Expander	4	4	4	2
	2 Door / 2 Reader Expander	0	3	0	3
	16 Floor Lift Interface	6	6	6	6
	RS-232/RS-485 UART	4	4	0	0
	Analogue Expander	4	0	6	0
	2nd Network Interface Card	1	1	0	0

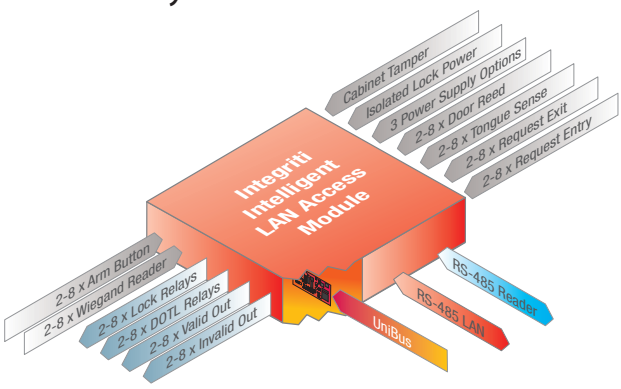
Doors, Expansion & Integration Options

- Expandable to 8 Doors (2 Doors on-board)
- Expandable to 8 Wiegand Readers (2 Readers on-board)
- Five enclosure sizes allow 2, 4, 6 or 8 Door/Reader configurations
- Three plug on external power supply options (2A, SMART 3A or SMART 8A Switch Mode)
- Aperio, SimonsVoss, Salto Sallis integration - up to 8 Doors via RS-485 Reader port
- Lift button I/O interfacing via optional UniBus Lift interface card (Up to 96 Floors)
- Expandable to 16 Inner Range SIFER or third party OSDP RS-485 readers via the dedicated RS-485 reader port

Offline Intelligence

- Offline intelligence provided for all Wiegand readers and standard lock outputs
- Offline Access Control database for 100,000 users
- Offline time periods
- Offline event database of 100,000 events

Connectivity



Specifications

Physical

Enclosure Options:	Small - 252(L) x 358(W) x 85(D) (mm): Part# 995200PE2 or 995200PE3 - houses 1 x INTG-996018*
	Medium - 460(L) x 358(W) x 85(D) (mm): Part# 995201PE2, 995201PE3 or 995201PE8 - houses 1 x INTG-996018 + up to 2 x INTG-996535*
	XLarge - 702(L) x 358(W) x 85(D) (mm): Part# 995203PE2, 995203PE3 or 995203PE8 - houses 1 x INTG-996018 + up to 3 x INTG-996535*
	WideBody - 580(L) x 510(W) x 95(D) (mm): Part# 995204PE3 or 995204PE8 - houses 1 x INTG-996018 + up to 3 x INTG-996535*
	Rack Mount - 2RU 680(L) x 420(W) x 85(D) (mm): Part# 995220PE2, 995220PE3 or 995220PE8 - houses 1 x INTG-996018 + up to 3 x INTG-996535*
PCB Size Code:	Integriti "B" size
PCB Dimensions:	200(L) x 94(W) x 45(D) (mm)
Weight:	8.2 k.g. (Based on medium enclosure, mains transformer, 7AH battery and cover)
Installation Environment:	0ºC - 70ºC @15% - 90% Relative humidity (non-condensing)

Electrical (For PCB Only)

Power Supply Input:	11V to 14VDC
Current Consumption:	110mA standby. 175mA with lock relays on
NOTE: Current consumption does not include the current required by readers or other external devices such as locks, buzzers, lamps or any device attached to the DOTL, Valid, Invalid, RS-485 Reader and UniBus connections	
Over Current Protection:	Reader +V connections. Protected with self-resetting PTC's

Contact Ratings

Lock Relays:	5 Amps @ 30VDC
DOTL Relays:	1 Amp @ 30VDC (Door Open Too Long output)

Connections

Lock 1 & 2:	Includes Lock+, Lock-, NO/COM/NC
Door 1 & 2:	Includes Reed, 2 x 0v, Tongue, REN, REX, DOTL contacts
Wiegand Reader 1 & 2:	Includes Valid, Invalid, 0V, Reader+, D1, D0, ARM
Lock Power:	Includes Lock+, Lock- connections from external PSU
Cabinet Tamper:	2 pin connection for cabinet tamper switch
UniBus Port:	1 x UniBus Host expansion port
RS-485 LAN:	1, Includes LAN+, LAN-, A, B. (LAN addressing set via DIP switches)
RS-485 Reader:	1, Supports up to 16 Inner Range SIFER or compatible OSDP readers, or 1 Salto Sallis, Aperio or SimonsVoss wireless access control hub)

External Power Supply Monitoring (Compatible with IR SMART PSU Devices)

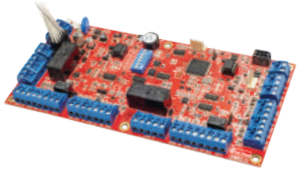
AC Fail:	External PS AC Fail
Low Battery:	External PS Low Battery
LAN Fuse:	External PS LAN Fuse
Detector Fuse:	External PS Detector Fuse
Low Volts:	External PS Low Volts
PSU Fail:	External PS Fail

Compliance

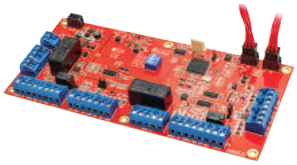
Electrical	
Environmental	RoHS

**Additional external power is required for 6 and 8 door configurations.*

Ordering Options



Intelligent LAN Access Module PCB & Kit
INTG-996018PCB&K
Intelligent LAN Access Module PCB & Kit with 2 Doors & 2 Readers on-board



UniBus 2 Door / 2 Reader Expansion Board
INTG-996535PCB&K
UniBus 2 Door / 2 Reader expansion-board PCB & Kit

Reader Options

Inner Range SIFER Smart Card Reader
INTG-994720
RS-485 multi-drop 128 bit AES encrypted DESFire© EV1/EV2 reader.
INTG-994720MF
SIFER Smart Card Reader - As above + Multi-Format enabled to read the Card Serial Number of 3rd party cards
INTG-994725
SIFER Keypad/Reader
INTG-994725MF
SIFER Keypad/Reader Multi-Format enabled

Enclosure Options

995200PE3 small enclosure shown

Spare Mounting Plates for Medium, Large and WideBody Enclosures
999026 - Medium mounting plate to suit Integriti PCB's
999023 - Medium mounting plate to suit Concept PCB's
999006 - Large mounting plate to suit Concept or Integriti PCB's***
INTG-999027 - 2nd tier hinged expansion plate to suit WideBody enclosure

Enclosures

Small
INTG-995200PEEU2 - 2Amp PSU*
INTG-995200PEEU3 - 3Amp SMART PSU*

Medium
INTG-995201PEEU2 - 2Amp PSU*
INTG-995201PEEU3 - 3Amp SMART PSU*
INTG-995201PEEU8 - 8Amp SMART PSU**

XLarge
INTG-995203PEEU2 - 2Amp PSU*
INTG-995203PEEU3 - 3Amp SMART PSU*
INTG-995203PEEU8 - 8Amp SMART PSU**

WideBody
INTG-995204PEEU3 - 3Amp SMART PSU*
INTG-995204PEEU8 - 8Amp SMART PSU**

Rack Mount Drawer
INTG-995220PEEU2 2RU - 2Amp PSU*
INTG-995220PEEU3 2RU - 3Amp SMART PSU*
INTG-995220PEEU8 2RU - 8Amp SMART PSU**

Please see enclosure section or website for further details on enclosures.
Part numbers containing "EU" are for the European market
** Additional external power may be required for 2 and 3Amp models.*
*** Product scheduled for future release in Europe*
**** Suitable for INTG-995203 series enclosures only*

DATA SHEET

Standard LAN Access Module (SLAM)

The Integriti Standard LAN Access Module (SLAM) can be used to control and monitor up to 2 doors on the Integriti RS-485 LAN, (or via IP using LAN over Ethernet modules - Part. 995093 see page 69 of Product Catalogue).

The module supports 2 doors and up to 4 Inner Range RS-485 SIFER or third party OSDP readers to accommodate entry and exit readers on both doors. Alternatively, 2 Wiegand readers may be connected to allow control and monitoring of a single door with entry and exit readers or 2 doors with a single reader each.

The SLAM offers a complete suite of programmable options to provide advanced high-security access control, security area control and door alarm monitoring functions. Cached functionality is also provided via the on-board database to provide offline access control operation for up to 2,000 user cards if communications to the master Controller (ISC/IAC) are lost. Cache expiry time for the module can be configured with expiry times ranging from 1 hour to 4 months. In addition, each user has an option to be stored permanently within the modules cache, particularly useful for situations where certain staff may need to be guaranteed access if the module is offline.

The SLAM is also used for integration of wireless door locking systems from Assa Abloy Aperio, SimonsVoss or Salto Sallis. Please see our website for Wireless Locking system Integration Guides for more details.

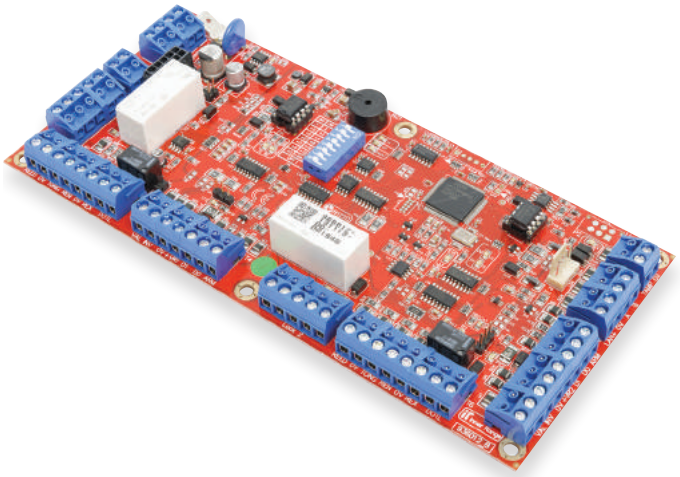
The power supply requirement is 11 to 14VDC and a range of Integriti plug on external 2Amp, 3Amp or 8Amp Switch Mode power supplies are available. The SMART 3Amp & 8Amp models are fully monitored via the Standard LAN Access Module.

Heavy duty relays are provided for lock switching, along with auxiliary outputs for "Valid", "Invalid" and "Door Open Too Long Warning" to control LEDs and/or buzzers.

Programming options allow for each Reader to be configured independently and security area control to be integrated with access control where required. Door Contacts and/or Tongue Sense inputs are utilized to provide "Door Forced" and "Door Open Too Long" alarms. Any spare zones may be used as general purpose zone inputs for use with PIR's, PE Beams, etc.

Features

- Offline 2,000 user card cache
- RS-485 Reader connectivity (up to 4 SIFER or compatible OSDP Readers)
- Entry and exit readers for both doors when using Inner Range SIFER or third party OSDP readers
- Reader options to control Doors, Lifts, Areas and Keypad User Logon
- Supports Wiegand card readers up to 88bits
- Wiegand reader outputs with individual self-resetting overcurrent protection
- Aperio, SimonsVoss, Salto Sallis integration - up to 2 Doors via RS-485 Reader port
- Dedicated lock power input
- External Integriti power supply connection
- Full monitoring of external Integriti SMART power supply
- Heavy duty lock relays
- Reader Valid & Invalid outputs
- Door reed & tongue sense inputs per door
- Door request to enter & exit inputs per door
- DOTL relay outputs per door
- Dedicated cabinet tamper input
- RS-485 LAN connectivity
- Over-The-Wire firmware upgradeable
- Small PCB size 200 x 95mm
- Built-in module locater buzzer

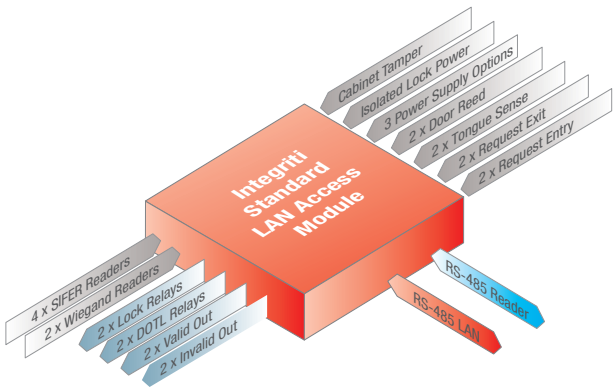


SLAM can be used for Integration with Aperio, SimonsVoss and Salto Sallis Wireless Door Locking Systems

Offline Cache Features

- Offline cache provided for 2,000 user cards
- Oldest card is overwritten by newest card when cache is full
- Configurable cache expiry times
- User cards can be made permanent in cache
- REX & REN buttons are also cached

Connectivity



Specifications

Physical

Enclosure Options:	Small - 252(L) x 358(W) x 85(D) (mm): Part# 995200PE2 or 995200PE3 - houses 1 x INTG-996012*
	Medium - 460(L) x 358(W) x 85(D) (mm): Part# 995201PE2, 995201PE3 or 995201PE8 - houses up to 3 x INTG-996012*
	XLarge - 702(L) x 358(W) x 85(D) (mm): Part# 995203PE2, 995203PE3 or 995203PE8 - houses up to 5 x INTG-996012*
	WideBody - 580(L) x 510(W) x 95(D) (mm): Part# 995204PE3 or 995204PE8 - houses up to 6 x INTG-996012*
	Rack Mount - 2RU 680(L) x 420(W) x 85(D) (mm): Part# 995220PE2, 995220PE3 or 995220PE8 - houses up to 4 x INTG-996012*
PCB Size Code:	Integriti "B" size
PCB Dimensions:	200(L) x 94(W) x 45(D) (mm)
Weight:	8.2 k.g. (Based on medium enclosure, mains transformer, 7AH battery and cover)
Installation Environment:	0ºC - 70ºC @15% - 90% Relative humidity (non-condensing)

Electrical (For PCB Only)

Power Supply Input:	11V to 14VDC
Current Consumption:	110mA standby. 175mA with lock relays on
NOTE: Current consumption does not include the current required by readers or other external devices such as locks, buzzers, lamps or any device attached to the DOTL, Valid, Invalid and RS-485 Reader connections	
Over Current Protection:	Reader +V connections. Protected with self-resetting PTC's

Contact Ratings

Lock Relays:	5 Amps @ 30VDC
DOTL Relays:	1 Amp @ 30VDC (Door Open Too Long output)

Connections

Lock 1 & 2:	Includes Lock+, Lock-, NO/COM/NC
Door 1 & 2:	Includes Reed, 2 x 0v, Tongue, REN, REX, DOTL contacts
Wiegand Reader 1 & 2:	Includes Valid, Invalid, 0V, Reader+, D1, D0, ARM
Lock Power:	Includes Lock+, Lock- connections from external PSU
Cabinet Tamper:	2 pin connection for cabinet tamper switch
RS-485 LAN:	1, Includes LAN+, LAN-, A, B. (LAN addressing set via DIP switches)
RS-485 Reader Port:	1, Supports up to 4 Inner Range SIFER or compatible OSDP readers, or 1 Salto Sallis, Aperio or SimonsVoss wireless access control hub

External Power Supply Monitoring (Compatible with Inner Range 3 & 8Amp SMART PSU's)

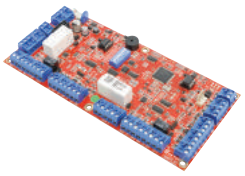
AC Fail:	External PS AC Fail
Low Battery:	External PS Low Battery
LAN Fuse:	External PS LAN Fuse
Detector Fuse:	External PS Detector Fuse
Low Volts:	External PS Low Volts
PSU Fail:	External PS Fail

Compliance

Electrical	CE
Environmental	RoHS

** Additional external power may be required.*

Ordering Options



Standard LAN Access Module (SLAM)
INTG-996012PCB&K
Standard LAN Access Module PCB & Kit.

Reader Options

Inner Range SIFER Smart Card Reader
INTG-994720
RS-485 multi-drop 128 bit AES encrypted DESFire© EV1/EV2 reader.
INTG-994720MF
SIFER Smart Card Reader - As above + Multi-Format enabled to read the Card Serial Number of 3rd party cards
INTG-994725
SIFER Keypad/Reader
INTG-994725MF
SIFER Keypad/Reader Multi-Format enabled

Enclosure Options

995200PE3 small enclosure shown

Spare Mounting Plates for Medium, Large and WideBody Enclosures
999026 - Medium mounting plate to suit Integriti PCB's
999023 - Medium mounting plate to suit Concept PCB's
999006 - Large mounting plate to suit Concept or Integriti PCB's***
INTG-999027 - 2nd tier hinged expansion plate to suit WideBody enclosure

Enclosures

Small
INTG-995200PEEU2 - 2Amp PSU*
INTG-995200PEEU3 - 3Amp SMART PSU*

Medium
INTG-995201PEEU2 - 2Amp PSU*
INTG-995201PEEU3 - 3Amp SMART PSU*
INTG-995201PEEU8 - 8Amp SMART PSU**

XLarge
INTG-995203PEEU2 - 2Amp PSU*
INTG-995203PEEU3 - 3Amp SMART PSU*
INTG-995203PEEU8 - 8Amp SMART PSU**

WideBody
INTG-995204PEEU3 - 3Amp SMART PSU*
INTG-995204PEEU8 - 8Amp SMART PSU**

Rack Mount Drawer
INTG-995220PEEU2 2RU - 2Amp PSU*
INTG-995220PEEU3 2RU - 3Amp SMART PSU*
INTG-995220PEEU8 2RU - 8Amp SMART PSU**

Please see enclosure section or website for further details on enclosures.
Part numbers containing "EU" are for the European market
** Additional external power may be required for 2 and 3Amp models.*
*** Product scheduled for future release in Europe*
**** Suitable for INTG-995203 series enclosures only*

SIFER READER

The SIFER card reader is a Smart Card reader designed and manufactured by Inner Range. 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. SIFER readers utilise the Mifare DESFire© EV1/EV2 card format.

As SIFER readers utilise a superset of the OSDP protocol, the readers may also be deployed on any system capable of using OSDP. SIFER 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
- Integriti Intelligent LAN Access Module (ILAM) - Up to 16 Readers
- Integriti Standard LAN Access Module (SLAM) - Up to 4 Readers

SIFER readers are IP67 rated and available with site-specific encryption keys.

Three card ordering options are available:

1. **SIFER-P:** Pre-programmed 'stock' cards with card number printed. The most cost-effective option but card customisation is not supported. 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. Printed with factory card number.
3. **SIFER-C:** Custom batch orders configured by the 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 the factory.

Multi-Format Version

The SIFER Multi Format Card reader offers an identical set of features to the Standard SIFER Reader with additional support for reading the CSN of third party 13.56Mhz credentials.

Features

- Secure 128bit AES Encryption
- Encrypted from Card Through to Access Module
- ·Mifare DESFire© EV1/EV2 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
- Integriti Auto Reader Discovery
- OSDP Compatible
- Read Card Serial Number (CSN) From 3rd Party Cards (Multi-Format Version Only)
- Support for Custom Site Codes and Site Specific Encryption
- User Programmable Cards Offer Great Flexibility For Installers
- Global Configuration From Integriti Systems (including firmware updates)
- Small Footprint (Dimensions: 39 (W) x 93 (H) x 15 (D) mm)

SIFER Connectivity Guide	SIFER Host Module		
	IAC	SLAM	ILAM
SIFER Reader Qty	16	4	16

A plug-on SIFER Reader board is available for EliteX & PrismaX Keypads. When fitted. SIFER access cards can be presented at the Keypads for card & PIN login or for access control on a local door.

Specifications

Physical

Reader Size:	93(L) x 39(W) x 15(D) (mm)
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:	-35ºC to 65ºC @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 with AES encryption
Credentials:	Read Card Serial Number (CSN) from 3rd party cards (MF Model Only)

Connections

Pigtail Cable Length:	500mm
Pigtail Extension Cable Type:	2-pair 7/0.20 twisted pair data cable as minimum. 2-pair 14/0.20 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
Total Overall Cable Length:	1000 meters total on one RS-485 reader port guaranteed
Max Readers:	Up to 16 with IAC & ILAM, Up to 4 with SLAM
Compatible Integriti Host Modules:	Standard LAN Access Module (SLAM), Intelligent LAN Access Module (ILAM), 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 Integriti 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
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
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:	75-100mA typical, 150mA MAX with all LED's driven at full brightness

Compliance

Electrical:	CE
Environmental:	RoHS

***SIFER-C cards are programmed with a custom encryption key and will require at least one SIFER Reader Configuration card with the initial batch. The SIFER Reader Configuration Card is available under Part Number 994614CNF*

Ordering Options

INTG-994720
SIFER Smart Card Reader

INTG-994720MF
SIFER Smart Card Reader - Multi Format Version

Credentials

ISO Cards

INTG-994610
SIFER-P DESFire© EV2 4K ISO (Pre-programmed- Printed)

INTG-994612
SIFER-U DESFire© EV2 4K ISO (User Programmable - Printed)

INTG-994614**
SIFER-C DESFire© EV2 4K ISO (Custom Programmed - Printed)

Key FOB's

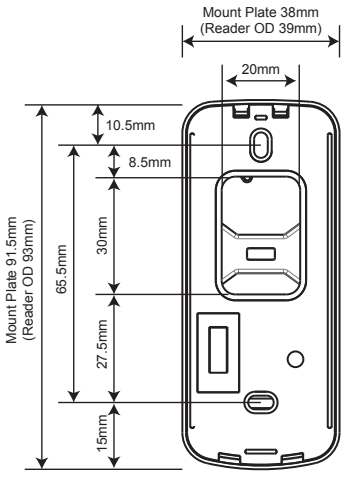
INTG-994616
SIFER-P DESFire© EV2 4K FOB (Pre programmed - Printed)

INTG-994618
SIFER-U DESFire© EV2 4K FOB (User Programmable - Printed)

INTG-994620**
SIFER-C DESFire© EV2 4K FOB (Custom Programmed - Printed)

Management Tools

INTG-994750EU SIFER Card Programming Station
INTG-994751 SIFER Card Enrollment Station



SIFER KEYPAD

The SIFER Keypad is a combined IP67 rated Keypad and Smart Card reader that allows dual credential Card & PIN high security access control. (PIN only or Card only is also supported)

The SIFER Keypad is a multi-drop RS-485 device that employs 128 bit AES encryption from the card/keypad through to the door module, providing a far superior level of security than that of traditional Wiegand based keypads & card readers.

SIFER Keypads utilise the Mifare DESFire© EV1/EV2 card format. As SIFER Keypads utilise a superset of the OSDP protocol, the keypads may also be deployed on any system capable of using OSDP. SIFER Keypads 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 Keypads/Readers
- Integriti Intelligent LAN Access Module (ILAM) - Up to 16 Keypads/Readers
- Integriti Standard LAN Access Module (SLAM) - Up to 4 Keypads/Readers

SIFER Keypads are IP67 rated and available with site-specific encryption keys. Three card ordering options are available for use with the SIFER Keypad.

1. **SIFER-P:** Pre-programmed 'stock' cards with card number printed. The most cost-effective option but card customisation is not supported. 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. Printed with factory card number.
3. **SIFER-C:** Custom batch orders configured by the 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 the factory.

Features

- Secure 128bit AES Encryption
- Encrypted from Keypad/Card through to Access Module
- Supports Card&PIN, Card only or PIN only modes
- Auto dimming backlit Silicon rubber keypad
- Mifare DESFire© EV1/EV2 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
- Integriti Auto Reader Discovery
- OSDP Compatible
- Read Card Serial Number (CSN) From 3rd Party Cards (Multi-Format Version Only)
- Support for Custom Site Codes and Site Specific Encryption
- User Programmable Cards Offer Great Flexibility for Installers
- Global Configuration From Integriti Systems (including firmware updates)
- Small Footprint (Dimensions: 64 (W) x 106(H) x 18 (D) mm)

Multi-Format Version

A SIFER Multi-Format Keypad/Card reader is also available and offers an identical set of features to the Standard SIFER Keypad with additional support for reading the CSN of third party 13.56 Mhz credentials.

SIFER Connectivity Guide	SIFER Host Module		
	IAC	SLAM	ILAM
SIFER Reader Qty	16	4	16

A plug-on SIFER Reader board is available for EliteX & PrismaX Keypads. When fitted. SIFER access cards can be presented at the Keypads for card & PIN login or for access control on a local door.

SIFER KEYPAD Smart Card Reader

Specifications

Physical

Reader Size:	106(L) x 64(W) x 18(D) (mm)
Keypad Button Size:	12.3 X 9 (MM) Auto-dimming back lit
Mounting Plate:	102.7(L) x 60.2(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: -	35ºC to 65ºC @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 with AES encryption
Credentials:	Read Card Serial Number (CSN) from 3rd party cards (MF Model Only)

Connections

Pigtail Cable Length:	500mm
Pigtail Extension Cable Type:	2-pair 7/0.20 twisted pair data cable as minimum. 2-pair 14/0.20 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
Total Overall Cable Length:	1000 meters total on one RS-485 reader port guaranteed
Max Readers:	Up to 16 with IAC & ILAM, Up to 4 with SLAM
Compatible Integriti Host Modules:	Standard LAN Access Module (SLAM), Intelligent LAN Access Module (ILAM), 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 Integriti 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

Keypad, LED & Beeper Indicators

Keypad:	Backlit auto-dimming silicon rubber keypad with a highly tactile operation feel
LED Configuration:	Brightness, Colours & Feedback modes - configurable via Integriti Software
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
Beeper Feedback Options:	Valid/Invalid card badge, Door Open tool long (DOTL), Area Alarm, Entry/Exit Delay

Power Requirements

Power supply	11V-14V DC< 500mV ripple
Current consumption	75mA – 115 mA, 165 mA max, depends on LED's configuration

Compliance

Electrical:	CE
Environmental:	RoHS

***SIFER-C cards are programmed with a custom encryption key and will require at least one SIFER Reader Configuration card with the initial batch. The SIFER Reader Configuration Card is available under Part Number 994614CNF*

Ordering Options

INTG-994725
SIFER Keypad/Smart Card Reader

INTG-994725MF
SIFER Keypad/Smart Card Reader - Multi Format Version

Credentials

ISO Cards

INTG-994610
SIFER-P DESFire© EV2 4K ISO (Pre-programmed- Printed)

INTG-994612
SIFER-U DESFire© EV2 4K ISO (User Programmable - Printed)

INTG-994614**
SIFER-C DESFire© EV2 4K ISO (Custom Programmed - Printed)

FOB's

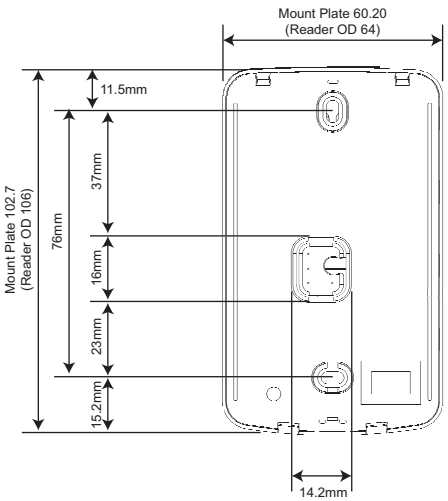
INTG-994616
SIFER-P DESFire© EV2 4K FOB (Pre-programmed - Printed)

INTG-994618
SIFER-U DESFire© EV2 4K FOB (User Programmable - Printed)

INTG-994620**
SIFER-C DESFire© EV2 4K FOB (Custom Programmed - Printed)

Management Tools

INTG-994750EU SIFER Card Programming Station
INTG-994751 SIFER Card Enrolment Station



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DATA SHEET

SIFER Credentials

A wide variety of credentials are available to suit Inner Range SIFER card readers. SIFER credentials are available in various form factors for use with physical and logical access control systems. All SIFER credentials use the highly secure MIFARE® DESFire©® EV2 card format. Form factor types for SIFER credentials include: ISO Cards, Key Fobs, self-adhesive Tags/Coils and Wristbands.
Three ordering options are available for each form factor type.

SIFER-P: Pre-programmed 'Stock' Credentials.

SIFER-P credentials are pre-programmed with the Inner Range Global Encryption Key and can be used with standard SIFER Readers without any need for card or reader configuration. SIFER-P credentials are supplied with a pre-programmed site code and a card number that is guaranteed to be unique and are 'locked' to disallow re-programming in the field. SIFER-P credentials are supplied with the SIFER-P mark and are printed with the unique card number.

SIFER-U: User-programmable Credentials.

SIFER-U credentials have an identical set of specifications to that of SIFER-P with the major difference being that they can be re-programmed in the field. By default SIFER-U credentials are shipped pre-programmed with the Inner Range SIFER Global Encryption Key and can be used with standard SIFER Readers without any need for card or reader configuration. Although SIFER-U credentials are supplied pre-programmed, the site code and encryption key can be re-programmed in the field using a SIFER card programming station. (It is not recommended to re-program SIFER-U card numbers as they are already unique)

When SIFER-U credentials have been re-programed, the SIFER readers must also be re-configured to use the same encryption key. To perform the Reader configuration a "Reader Configuration Card" must be produced using the SIFER card programming station.
SIFER-U customisation is a process that is carried out by the installer and as such the unique encryption key must be stored and managed for safekeeping by the installer, this facilitates additional card batches at a future date. Where a unique SIFER-U encryption key has been lost it cannot be recovered.

SIFER-U: Gold Card Service.

As an alternative to the installer specifying their own custom encryption key, Inner Range offers a 'Gold Card' service, providing the installer with a unique Gold Key Configuration Card ('Gold Card'). The Gold Card delivers a guaranteed unique custom encryption key for use with the SIFER programming station and SIFER-U credentials. Inner Range assigns a unique encryption key from the reserved 'Gold Card' range. The encryption key is then associated with the customer's site to facilitate future card orders. The encryption key is securely stored within Inner Range where it cannot be viewed or shared. Being a reserved key, the key can never be manually entered using a SIFER programmer.

SIFER-C: Custom Programmed Credentials & Reader Configuration Cards.

The SIFER-C option allows installers to order reader configuration cards and user credentials from the factory with specific custom programming.
SIFER-C allows the card number range, site code and encryption key to be programmed to order. SIFER-C card numbers are guaranteed to be unique and are 'locked' to disallow credential re-programming in the field. SIFER-C credentials are supplied with the SIFER-C mark and are printed with the unique card number. Where SIFER-C credentials are to be deployed the SIFER readers/keypads on the site must also be re-configured to use the matching encryption key. To accommodate this a Reader Configuration Card (994614CNF) is also required.

Ordering Options

Standard SIFER Credentials. All credentials are MIFARE® DESFire©® EV2 4K

ISO Cards
SIFER-P ISO Card **INTG-994610**
SIFER-U ISO Card **INTG-994612**
SIFER-C ISO Card **INTG-994614**

Silicon Wrist Bands
SIFER-P Wristband **INTG-994625P**
SIFER-U Wristband **INTG-994625U**
SIFER-C Wristband **INTG-994625C**

Special Order Multi Application Cards & Fobs*
INTG-994614A Dual Application ISO card SIFER/Aperio
INTG-994614H Dual Application ISO card SIFER/HID
INTG-994614AH Tri Application ISO card SIFER/Aperio/HID

Key Fobs
SIFER-P Key Fob **INTG-994616**
SIFER-U Key Fob **INTG-994618**
SIFER-C Key Fob **INTG-994620**

SIFER-U Gold Card
INTG-994612G for use with SIFER-U credentials

INTG-994620A Dual Application Key Fob SIFER/Aperio
INTG-994620H Dual Application Key Fob SIFER/HID
INTG-994620AH Tri Application Key Fob SIFER/Aperio/HID
**All multi-application credentials must be based on MIFARE® DESFire©® EV1/EV2 media (56 bit)*

Self Adhesive 20mm Coils
SIFER-P Tag/Coil **INTG-994621P**
SIFER-U Tag/Coil **INTG-994621U**
SIFER-C Tag/Coil **INTG-994621C**

SIFER Reader Configuration Card
INTG-994614CNF for use with SIFER-C credentials & SIFER readers and Keypad Readers

OSDP <> Wiegand Converter

The OSDP <> Wiegand Converter is a small inline device, capable of operating 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:

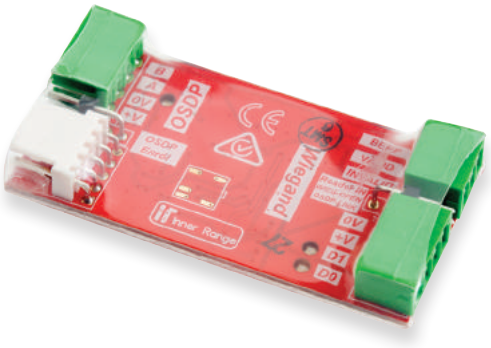
- 128bit AES encrypted communication path
- 4-core cables to the module, while still offering beeper, valid and invalid LED control
- Longer cable runs
- More flexible wiring configurations (for example, daisy-chaining readers together for a single run back to the module).

In practice, this allows up to 16 Wiegand readers to be connected directly to an Integriti Access Module (4 for SLAM), allowing read-in and read-out abilities on all doors. This is perfect if upgrading an existing site with access control to Integriti.

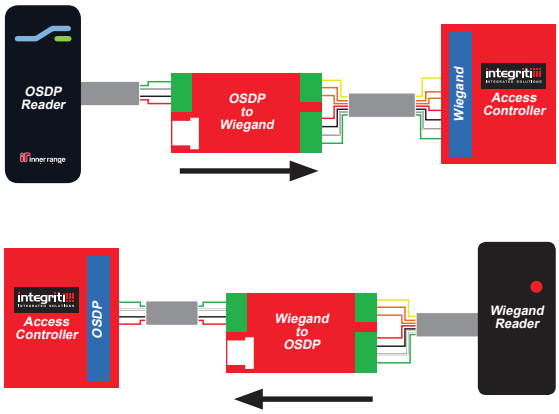
The advanced control that Integriti offers for a Wiegand reader's beeper and valid/invalid LEDs are also available when connected to the OSDP <> Wiegand Converter. This allows numerous area events like arm success or failure, entry delay, exit delay, alarm and area arm warning, or door events like door unlocked and held open too long to make use of the inbuilt Wiegand reader's 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 access modules where the system is being upgraded to use an Integriti ISC/IAC Controller.



Connectivity



Specifications

Physical

PCB Size:	85(L) x 35(W) x 15(D) (mm) Including connectors
Mounting Method:	Within a secure location - can be mounted using velcro strips
Installation Environment:	0º to 65º Celsius. 15-85% Relative humidity (non-condensing)

Reader Protocols

Device Communications:	OSDP, SIFER & Wiegand

Connections

OSDP Port:	4 pin connector +V, 0v, A, B
Wiegand Reader:	4 pin connector D0, D1, +V, 0
Wiegand LED & Beeper:	3 pin connector Invalid LED, Valid LED, Beeper
Port 0:	5 pin connector to suit Port 0 cable (993030USB)

Reader Security

OSDP Communications Bus:	128bit AES encryption

Device Configuration

Configurable options include:	RS-485 OSDP Baud Rate, Wiegand bit length, OSDP reader primary LED colour, OSDP reader 2nd LED colour, SIFER reader LED brightness, SIFER reader speaker volume

Power Requirements

Input:	11-14V DC
Current Consumption:	Idle 20mA - Peak 35mA (Not including any connected readers, LEDS or beepers)

Compliance

Electrical:	CE
Environmental:	RoHS

Ordering Options

INTG-994200
OSDP <> Wiegand Converter

Features

- Convert Wiegand to OSDP format
- Convert OSDP to Wiegand format
- Auto reader enrollment in OSDP to Wiegand mode
- Configurable via HyperTerminal using a Port 0 Cable (993030USB)
- Configurable options include:
  - RS-485 OSDP Baud Rate
  - Wiegand bit length
  - OSDP reader primary LED colour
  - OSDP reader 2nd LED colour
  - SIFER reader LED brightness
  - SIFER reader speaker volume

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DATA SHEET

SIFER Card Programming Station

The SIFER Card Programming Station is an installer tool featuring a USB connected SIFER programming head, which is used in conjunction with the accompanying SIFER Card Programming Software. This system allows SIFER "User Programmable" cards, known as SIFER-U cards to be encoded with customised site codes and encryption keys by the installer. The programming station is also used to create the SIFER Reader Configuration Card which is necessary to configure SIFER readers to decrypt the sites unique encryption key.

SIFER-U cards are available as ISO style cards or FOBS and are readily available from Inner Range distributors. Before leaving the Inner Range factory each SIFER-U cards is pre-programmed, with a standard encryption key, site code and unique card number. This allows SIFER-U cards to be used in the field as they are, or they can be encoded to the installer's requirements using the SIFER Programming Station.

The SIFER Programmer allows the installer to encode card details of their own choosing, and the following aspects can be changed:

- Site Code
- Encryption Key (32 HEX Digits)

It is also possible to change the card number, however this is usually unnecessary as every SIFER-U card already carries a unique card number which is etched onto the card. If a SIFER-U cards standard site code or card number are to be changed, the default encryption key must also be changed.

Encoding Parameters

- Site Codes: Between 1 – 16.7 million (16,777,215) (some site codes are reserved for Inner Range use)
- Encryption Key: Specified 32 digit hexadecimal string or automatically generated by the Card Programming Software
- Card Numbers: Between 1– 4.3 billion (4,294,967,295)

Specifications

Electrical Specifications

Power Supply Source:	5V DC from PC USB Port.
Output to PC:	USB 2.0

Mechanical Specifications

The SIFER Card Programming Station is supplied as a desktop unit which may be wall mounted if required.

Dimensions: Length:	190mm
Width:	134mm
Height:	65mm
USB Cable length:	1.5 metres

Installation environment should be maintained at a temperature of 0º to 50º Celsius and 15% to 90% Relative humidity (non-condensing)

Software

Programming Station Software:	Windows software, downloadable from Inner Range website

SIFER-U Tag/Coil **INTG-994621U**

SIFER-U Wristband **INTG-994625U**

SIFER-U Gold Card

INTG-994612G for use with SIFER-U credentials

Ordering Options

Management Tools

INTG-994750EU SIFER Card Programming Station

Credentials

ISO Cards

INTG-994612
SIFER-U DESFire© EV2 4K ISO (User Programmable - Printed)

FOB's

INTG-994618
SIFER-U DESFire© EV2 4K FOB (User Programmable - Printed)

DATA SHEET

SIFER Card Enrolment Station

The SIFER Card Enrollment Station is designed to conveniently allow SIFER cards to be enrolled into an Inner Range Integriti system at a computer workstation using the Integriti software.

This allows system administrators to enroll new SIFER cards into the Integriti system without the need to physically enter the card data into the system.

Specifications

Electrical Specifications

Power Supply Source:	5V DC from PC USB Port.
Output to PC:	USB 2.0
Integriti/Infiniti Software Compatibility	V4.1 or later.

Mechanical Specifications

The SIFER Card Programming Station is supplied as a desktop unit which may be wall mounted if required.

Dimensions: Length:	190mm
Width:	134mm
Height:	65mm
USB Cable length:	1.5 metres

Installation environment should be maintained at a temperature of 0º to 50º Celsius and 15% to 90% Relative humidity (non-condensing)

Ordering Options

Management Tools

INTG-994751 SIFER Card Enrollment Station

DATA SHEET

8 Zone LAN Expander

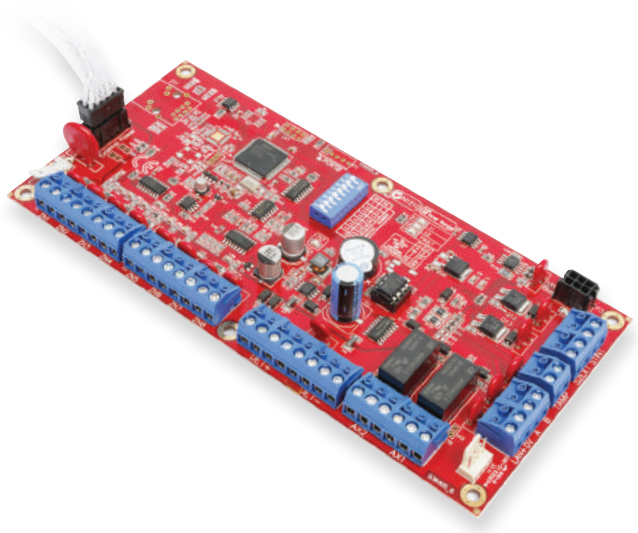
The Integriti 8 Zone LAN Expander Module connects directly to the Integriti or RS-485 LAN and provides an additional 8 Zone Inputs, 2 Auxiliary Outputs and 2 Siren drivers.

Up to 99 Zone Expander Modules can be connected to the RS-485 LAN (or via IP using LAN over Ethernet modules - Part. 995093 see page 69 of Product Catalogue).**

The 8 Zone LAN Expander Module also offers a UniBus in-cabinet expansion interface allowing further expansion of Zone Inputs and Auxiliary Outputs using plug on UniBus expansion devices fitted within the same tamper-protected enclosure. Up to 32 Zone Inputs or 32 Auxiliary Outputs can be connected to the Module (32 Zones and 26 Auxiliaries or 24 Zones and 32 Auxiliaries at the same time).

The power supply requirement is 11 to 14VDC and a range of Integriti plug on external 2Amp, 3Amp or 8Amp switch mode power supplies are available. Integriti external power supplies are fully monitored via the 8 Zone Expander Module.

*** Where it is necessary to connect large numbers of Zone Expanders to the Integriti RS-485 LAN, the use of LAN Isolators or other LAN retransmission devices such as Fibre Modems or CLOE modules is recommended. The total amount of zone inputs available in the system is dependent on the SMART card level fitted to the Controller (See the Integriti ISC/IAC Controller data sheets for details).*



UniBus Device Compatibility Guide		UniBus Host Module			
		ISC	IAC	8 Zone Expander	ILAM
UniBus Device	8 Zone Expander	2	0	3	0
	8 Relay Expander	4	4	4	2
	2 Door / 2 Reader Expander	0	3	0	3
	16 Floor Lift Interface	6	6	6	6
	RS-232/RS-485 UART	4	4	0	0
	Analogue Expander	4	0	6	0
	2nd Network Interface Card	1	1	0	0

Features

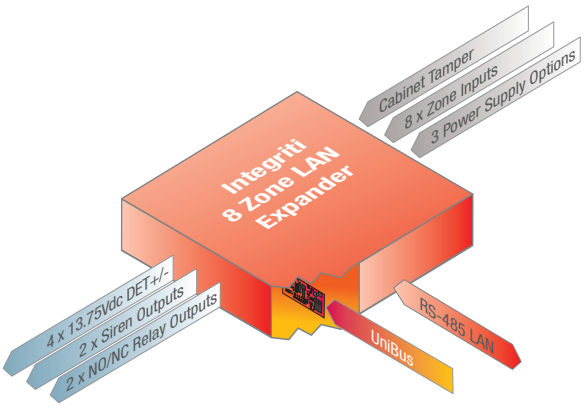
- RS-485 LAN connectivity
- UniBus In-Cabinet Expansion Interface
- 8 Zone Inputs - Multistate or Analogue
- 2 Auxiliary Output Relays
- External Integriti power supply connection
- Three options for power supply size 2Amp, 3Amp & 8Amp
- Six enclosure size options
- Dedicated Tamper Input
- Internal & External variable tone Siren Outputs
- 4 Terminals supplying 13.75VDC nominal Detector Power
- Over-The-Wire firmware upgradable
- On-board diagnostic LED's to assist with commissioning and troubleshooting
- Small PCB size 200 x 95mm
- Built-in module locater buzzer

Expansion Capabilities

- Zone Inputs - Expandable to 32 via UniBus***
- Auxiliary Outputs (Relays) - Expandable to 32 via UniBus***

****32 Zones and 26 Auxiliaries or 24 Zones and 32 Auxiliaries at the same time*

Connectivity



inner range

8 Zone LAN Expander

Specifications

Physical

Enclosure Options:	XSmall - 252(L) x 263(W) x 85(D) (mm): Part# 995200XS
	Small - 252(L) x 358(W) x 85(D) (mm): Part# 995200PE2 or 995200PE3
	Medium - 460(L) x 358(W) x 85(D) (mm): Part# 995201PE2, 995201PE3 or 995201PE8
	XLarge - 702(L) x 358(W) x 85(D) (mm): Part# 995203PE2, 995203PE3 or 995203PE8
	WideBody - 580(L) x 510(W) x 95(D) (mm): Part# 995204PE3 or 995204PE8
	Rack Mount - 2RU 680(L) x 420(W) x 85(D) (mm): Part# 995220PE2, 995220PE3 or 995220PE8
PCB Size Code:	Integriti "B" size
PCB Dimensions:	200(L) x 94(W) x 45(D) (mm)
Weight:	300g (For PCB & accessories Only)
Installation Environment:	0ºC - 70ºC @15% - 90% Relative humidity (non-condensing)

Electrical (For PCB Only)

Power Supply Input:	11V to 14VDC
Current Consumption:	60mA standby. 100mA with both Aux relays on

NOTE: Current consumption does not include the current required by detectors or other external devices such as buzzers, lamps or any device attached to the DET+, LAN+ and UniBus connections

Contact Ratings

Aux Relays:	2 Amps @ 30VDC

Connections

Zone Inputs:	8 x Multistate Zone Inputs
Aux Outputs:	2 x Relay Output NO|COM|NC
Cabinet Tamper:	2 pin connection for cabinet tamper switch
UniBus Port:	1 x UniBus Host expansion port
RS-485 LAN:	1, Includes LAN+, LAN-, A, B. (LAN addressing set via DIP switches)
Siren Outputs:	1 x Internal & 1 x External variable tone Siren Outputs*
Power Supply:	1 x Integriti External Power Supply Connection
Power Outputs:	4 x 13.75Vdc nominal outputs (DET+/DET- Detector Power)

External Power Supply Monitoring (Compatible with IR SMART PSU Devices)

AC Fail:	External PS AC Fail
Low Battery:	External PS Low Battery
LAN Fuse:	External PS LAN Fuse
Detector Fuse:	External PS Detector Fuse
Low Volts:	External PS Low Volts
PSU Fail:	External PS Fail

Compliance

Electrical	CE
Environmental	RoHS

**Siren drivers fitted from PCB revision "B"*

Ordering Options

INTG-996005PCB&K
8 Zone LAN Expander Module PCB & Kit

UniBus expansion options to suit above
See separate data sheets for UniBus devices

INTG-996500PCB&K
UniBus 8 Zone Expansion device

INTG-996515PCB&K
UniBus 8 Relay(Aux) Expansion device

INTG-996540PCB&K
UniBus 16 Floor Lift Interface device

Enclosure Options

995200PE3 small enclosure shown

Enclosures

Small
INTG-995200PEEU2 - 2Amp PSU*
INTG-995200PEEU3 - 3Amp SMART PSU*

Medium
INTG-995201PEEU2 - 2Amp PSU*
INTG-995201PEEU3 - 3Amp SMART PSU*
INTG-995201PEEU8 - 8Amp SMART PSU**

XLarge
INTG-995203PEEU2 - 2Amp PSU*
INTG-995203PEEU3 - 3Amp SMART PSU*
INTG-995203PEEU8 - 8Amp SMART PSU**

WideBody
INTG-995204PEEU3 - 3Amp SMART PSU*
INTG-995204PEEU8 - 8Amp SMART PSU**

Rack Mount Drawer
INTG-995220PEEU2 2RU - 2Amp PSU*
INTG-995220PEEU3 2RU - 3Amp SMART PSU*
INTG-995220PEEU8 2RU - 8Amp SMART PSU**

Spare Mounting Plates for Medium, Large and WideBody Enclosures

999026 - Medium mounting plate to suit Integriti PCB's
999023 - Medium mounting plate to suit Concept PCB's
999006 - Large mounting plate to suit Concept or Integriti PCB's***
INTG-999027 - 2nd tier hinged expansion plate to suit WideBody enclosure

Please see enclosure section or website for further details on enclosures.
Part numbers containing "EU" are for the European market
** Additional external power may be required for 2 and 3Amp models.*
*** Product scheduled for future release in Europe*
**** Suitable for INTG-995203 series enclosures only*

DATA SHEET

UniBus 4 Way Analogue Input Expander

The UniBus 4 Way Analogue Input Expander provides the capability to monitor, report and action on analogue values within an Integriti system. The device can be programmed to operate an auxiliary when an analogue level from one or more of its independent analogue inputs exceeds or goes below a pre-programmed trigger point. Analogue levels can be monitored and controlled in scaled units through the Integriti software or at any EliteX Terminal.

The Analogue input device is hosted via a UniBus connection to the Integriti Security Controller (ISC) or the Integriti 8 Zone LAN Expander. The device is designed for installation within the same tamper-protected enclosure as its UniBus host module.

Each of the 4 inputs can be configured to operate in any one of 3 modes

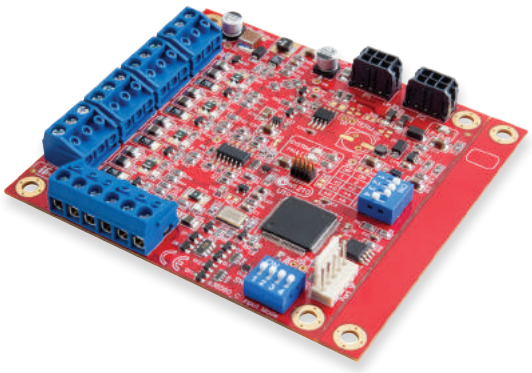
1) Serial Mode - For use with the Inner Range Serial Temperature Sensor (Part. 995089)
2) Voltage Monitor Mode - For monitoring voltages from 0 to 10V DC
3) Current Loop Monitor Mode - For monitoring current from 4 to 20mA DC

The Analogue Module allows the programmer or installer a variety of selectable mode settings and levels with which to configure the system to the particular application. The trigger point, output auxiliary, tamper levels and hysteresis values may be individually selected for each input.

Host Module Compatibility

The UniBus 4 Way Analogue Input Expander is compatible with the following UniBus Host Modules:

- Integriti ISC Controller (Part. INTG-996001 series) - Connect up to 4
- Integriti 8 Zone RS-485 LAN Expander (Part. INTG-996005PCB&K) - Connect up to 6



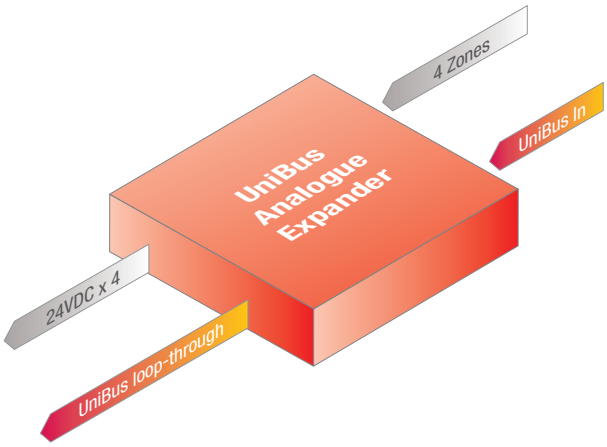
UniBus Device Compatibility Guide		UniBus Host Module			
		ISC	IAC	8 Zone Expander	ILAM
UniBus Device	8 Zone Expander	2	0	3	0
	8 Relay Expander	4	4	4	2
	2 Door / 2 Reader Expander	0	3	0	3
	16 Floor Lift Interface	6	6	6	6
	RS-232/RS-485 UART	4	4	0	0
	Analogue Expander	4	0	6	0
	2nd Network Interface Card	1	1	0	0

Features

- 4 Universal Analogue Zone Inputs
- 3 mode options per input - Serial, Voltage or Current loop
- Compatible with Inner Range Serial Temperature Sensor (Part. 995089 - See page 68)
- Programmable hysteresis setting
- DIP switch addressable first zone 1, 5, 9, 13, 17, 21, 25, 29
- 24V DC output for current loop supply
- UniBus loop-through connectors
- 2 LED status/fault indicators
- Resettable surge protected inputs
- Over-The-Wire firmware upgradeable
- Integriti "C" size footprint 94 x 94mm
- Can be installed above other "C" size PCB's**
- A Snap off strip is included to allow installation above Integriti "B" size PCB's**

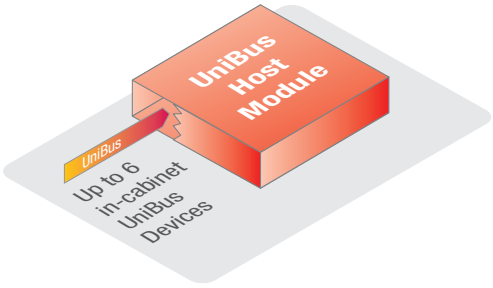
*** 35mm standoff kit required - Part Number 999009*

Connectivity



UniBus 4 Way Analogue Input Expander

UniBus Installation



UniBus Devices are designed for installation within the same enclosure as the UniBus host module. A UniBus host can interface a maximum of six UniBus devices in any combination, provided they are all within the intended functionality of the host module

Specifications

Physical

PCB Size Code:	Integriti "C" size
PCB Size:	94(L) x 94(W) (mm)
PCB size including snap off strip:	105(L) x 94(W) (mm)
Height:	15(D)(mm) (28mm with UniBus cable connected)
Installation Environment:	0ºC - 70ºC @15% - 90% Relative humidity (non-condensing)

Electrical

Power Supply Input:	11V to 14V DC via host module
Static Current Consumption:	50mA idle ~ 230mA (Max with all inputs in loop mode supplying 20mA per input)
CL+ Outputs:	24V DC Current Loop Output Voltage
1W+ Output:	5VDC for connection to +DAL on 995089 Serial Temperature Sensor

Connections

Analogue Inputs:	4
CL+:	1 per Input
1W+	1
Serial Sense Inputs	4
UniBus Port:	1
UniBus Loop-through Port:	1
Connection to Host Module:	Via 270mm UniBus patch lead (supplied)

Power Considerations

The UniBus host module supplies current and static device current to all connected UniBus devices.
Total current consumption is, therefore the sum of all:
- Static Current of all connected UniBus devices
- Static Current of host module
- Host module battery charging current
- Ancillary devices connected to all DET+, CL+, 1W+ connections
- Ancillary devices connected to host module's RS-485 LAN+

Compliance

Electrical	CE
Environmental	RoHS

Ordering Options

Serial Temperature Sensor
The sensor records the temperature and converts it to an 8-bit digital value. The digital data is then sent to the Analogue Module to be processed. Each Serial Temperature Sensor is supplied with a wall mounting kit and requires no further calibration.

995089
Serial Temperature Sensor

INTG-996560PCB&K
Integriti UniBus Analogue Input Expander PCB & Accessories (Includes 270mm UniBus patch cable)
(Due for release late 2018)

Spare UniBus patch cables
INTG-996791SS - UniBus Patch Cable 150mm
INTG-996791S - UniBus Patch Cable 220mm
INTG-996791L - UniBus Patch Cable 270mm
INTG-996791LL - UniBus Patch Cable 475mm
INTG-996791XL - UniBus Patch Cable 675mm

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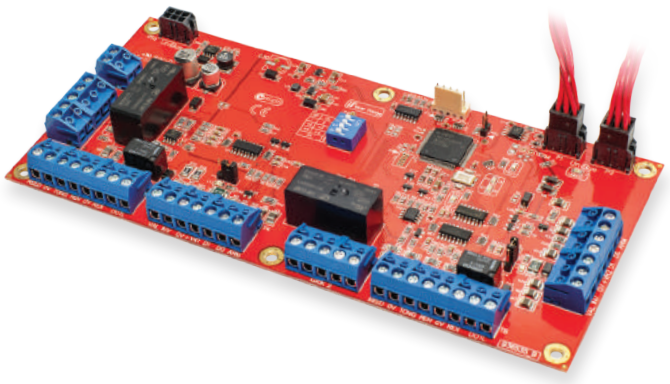
UniBus 2 Door / 2 Reader Expander

The UniBus 2 Door / 2 Reader Expander can be used to provide control and monitoring of 2 additional Doors or Readers on a compatible UniBus host module. When connected to the Integriti Intelligent LAN Access Module, the UniBus 2 Door / 2 Wiegand Reader expander can provide installation configurations for 4, 6 or 8 doors. SIFER or third party OSDP RS-485 readers can be assigned via the host module for Read In & Read Out access control on each door.

The UniBus 2 Door / 2 Reader Expander is designed for installation within the same tamper-protected enclosure as its UniBus host module. The UniBus device is connected directly to the host module or daisy-chained to another UniBus device via the UniBus patch cable supplied. Up to 3 UniBus 2 Door / 2 Reader Expander devices can be connected.



Host Module Compatibility

The UniBus 2 Door / 2 Reader Expander is compatible with the following UniBus Host Modules:

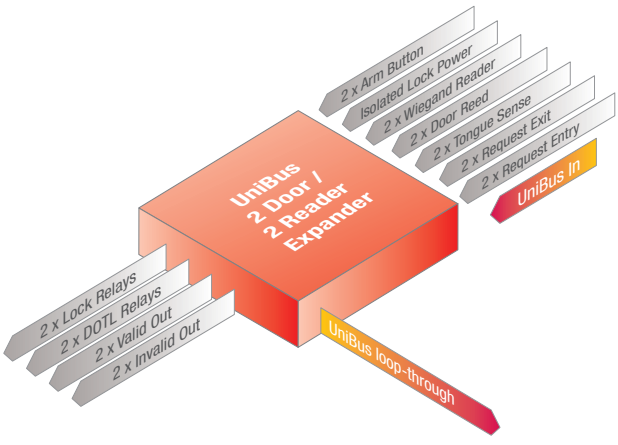
- Integriti Intelligent LAN Access Module (Part. INTG-996018PCB&K)
- Integriti IAC Controller (Part. INTG-996035PCB&K)

UniBus Device Compatibility Guide		UniBus Host Module			
		ISC	IAC	8 Zone Expander	ILAM
UniBus Device	8 Zone Expander	2	0	3	0
	8 Relay Expander	4	4	4	2
	2 Door / 2 Reader Expander	0	3	0	3
	16 Floor Lift Interface	6	6	6	6
	RS-232/RS-485 UART	4	4	0	0
	Analogue Expander	4	0	6	0
	2nd Network Interface Card	1	1	0	0

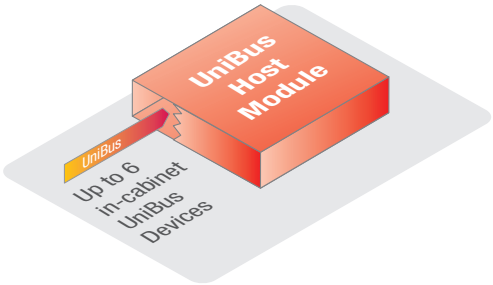
Features

- Provides an additional 2 Doors / 2 Wiegand Readers for Host Module
- Assign Read In & Read Out SIFER or third party OSDP RS-485 readers for each door via the Host Module
- UniBus connectivity to Host Module
- Reader options to control Doors, Lifts, Areas and User Logon
- Supports Wiegand card readers up to 88bits
- Reader outputs with individual self-resetting over current protection
- UniBus loop-through connectors
- LED Status & Fault Indicators
- Dedicated lock power input
- Heavy duty lock relays
- Reader Valid & Invalid Outputs
- Door reed & tongue sense inputs per door
- Door request to enter & exit inputs per door
- DOTL relay outputs per door
- Integriti "B" size footprint 200 x 94mm

Connectivity



UniBus Installation



UniBus Devices are designed for installation within the same enclosure as the UniBus host module. A UniBus host can interface a maximum of six UniBus devices in any combination, provided they are all within the intended functionality of the host module

Specifications

Physical

PCB Size Code:	Integriti "B" size
PCB Size:	200(L) x 94(W) x 45(D) (mm)
Height:	20(D) (mm) (45mm with UniBus cable connected)
Installation Environment:	0ºC - 70ºC @15% - 90% Relative humidity (non-condensing)

Electrical

Power Supply Input:	11V to 14VDC via host module
Current Consumption:	40mA idle
	110mA both lock relays on
	135mA both lock & DOTL relays on

NOTE: Current consumption does not include the current required by readers or other external devices such as locks, buzzers, lamps or any device attached to the DOTL, Valid, Invalid, RS-485 Reader and UniBus connections

Over Current Protection:	Reader +V connections. Protected with self-resetting PTC's

Contact Ratings

Lock Relays:	5 Amps @ 30VDC
DOTL Relays:	1 Amp @ 30VDC (Door Open Too Long output)

Connections

Lock 1 & 2:	Includes Lock+, Lock-, NO/COM/NC
Door 1 & 2:	Includes Reed, 2 x 0v, Tongue, REN, REX, DOTL contacts
Wiegand Reader 1 & 2:	Includes Valid, Invalid, 0V, Reader+, D1, D0, ARM
Lock Power:	Includes Lock+, Lock- connections from external PSU
UniBus Port:	3 x UniBus connections for loop-through and connection to host module

Power Considerations

The UniBus host module supplies static device current to all connected UniBus devices.

Total current consumption is, therefore the sum of all:

- Static Current of all connected UniBus devices
- Static Current of host module
- Host module battery charging current
- Card Readers and Ancillary devices connected to DOTL, Valid & Invalid connections

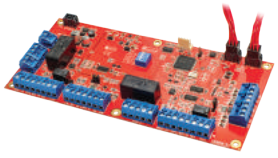
Lock Power Considerations

Lock power is supplied directly from an Integriti SMART PSU (Housed in the same enclosure) and is the sum of the maximum current required by all connected locking device hardware.

Compliance

Electrical	CE
Environmental	RoHS

Ordering Options



INTG-996535PCB&K
Integriti UniBus 2 Door Expander PCB & Accessories (Includes 270mm UniBus patch cable)

Spare UniBus patch cables
INTG-996791SS - UniBus Patch Cable 150mm
INTG-996791S - UniBus Patch Cable 220mm
INTG-996791L - UniBus Patch Cable 270mm
INTG-996791LL - UniBus Patch Cable 475mm
INTG-996791XL - UniBus Patch Cable 675mm

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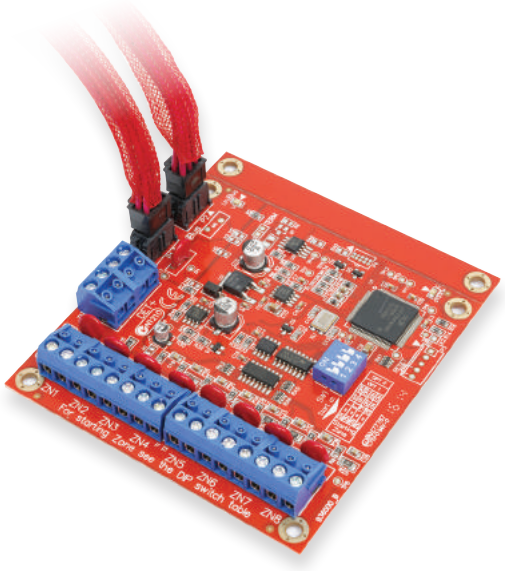
UniBus 8 Zone Expander

The UniBus 8 Zone Expander connects to an Integriti Security Controller (ISC) or an 8 Zone LAN Expander via the UniBus Port. It provides an additional 8 Zone Inputs that support all Integriti Zone Types including Multistate and Counter types along with extra detector power supply connections (DET+) to simplify device wiring.

The UniBus 8 Zone Expander is designed for installation within the same tamper-protected enclosure as its UniBus host module. The UniBus device is connected directly to the host module or another UniBus device via the UniBus patch cable supplied.



Host Module Compatibility

The UniBus 8 Zone Expander is compatible with the following UniBus Host Modules:

- Integriti ISC Controller (Part. INTG-996001 series) - Connect up to 2
- Integriti 8 Zone RS-485 LAN Expander (Part. INTG-996005PCB&K) - Connect up to 3

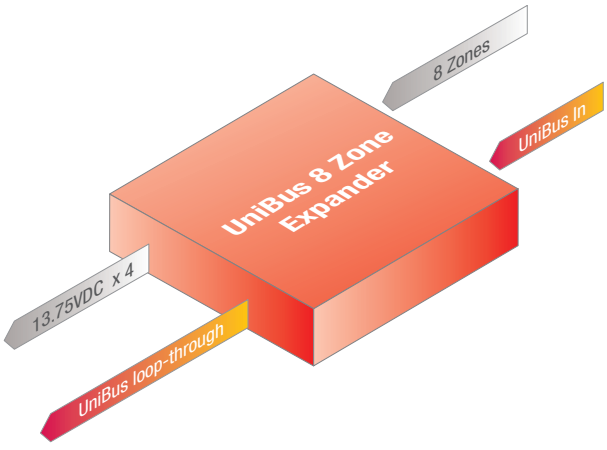
UniBus Device Compatibility Guide		UniBus Host Module			
		ISC	IAC	8 Zone Expander	ILAM
UniBus Device	8 Zone Expander	2	0	3	0
	8 Relay Expander	4	4	4	2
	2 Door / 2 Reader Expander	0	3	0	3
	16 Floor Lift Interface	6	6	6	6
	RS-232/RS-485 UART	4	4	0	0
	Analogue Expander	4	0	6	0
	2nd Network Interface Card	1	1	0	0

Features

- 8 Universal Zone Inputs
- Support for Multistate EOL circuits
- Support for counter type inputs
- Programmable de-bounce times
- DIP switch addressable first zone 1, 9, 17 or 25
- UniBus loop-through connectors
- 4 Way DET+ 13.75V outputs
- 2 LED status/fault indicators
- Surge protected inputs
- Over-The-Wire firmware upgradable
- Integriti "C" size footprint 94 x 94mm
- Can be installed above other "C" size PCB's**
- A Snap off strip is included to allow installation above Integriti "B" size PCB's**

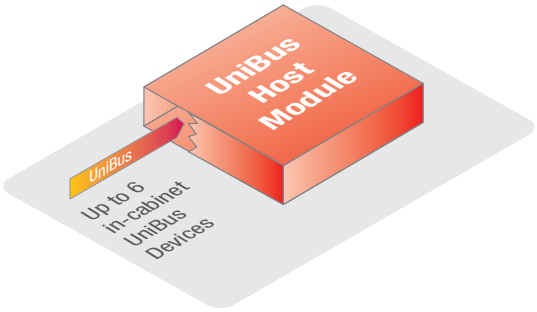
*** 35mm standoff kit required - Part Number 999009*

Connectivity



UniBus 8 Zone Expander

UniBus Installation



UniBus Devices are designed for installation within the same enclosure as the UniBus host module. A UniBus host can interface a maximum of six UniBus devices in any combination, provided they are all within the intended functionality of the host module

Specifications

Physical

PCB Size Code:	Integriti "C" size
PCB Size:	94(L) x 94(W) (mm)
PCB size including snap off strip:	105(L) x 94(W) (mm)
Height:	15(D) (mm) (28mm with UniBus cable connected)
Installation Environment:	0ºC - 70ºC @15% - 90% Relative humidity (non-condensing)

Electrical

Power Supply Input:	11V to 14V DC via host module
Static Current Consumption:	75mA. (not including detector power)
DET+:	Output Voltage 13.75V DC - sourced from host
DET+ Output Current:	Limited to available current from host

Connections

Zone Inputs:	8
DET+ Out:	4
UniBus Port:	1
UniBus Loop-through Port:	1
Connection to Host Module:	Via 270mm UniBus patch lead (supplied)

Power Considerations

The UniBus host module supplies DET+ current and static device current to all connected UniBus devices.

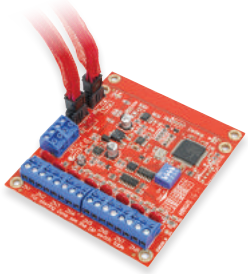
Total current consumption is, therefore the sum of all:

- Static Current of all connected UniBus devices
- Static Current of host module
- Host module battery charging current
- Ancillary devices connected to all DET+ connections
- Ancillary devices connected to host module's RS-485 LAN+

Compliance

Electrical	CE
Environmental	RoHS

Ordering Options



INTG-996500PCB&K
Integriti UniBus 8 Zone Input Expander PCB & Accessories (Includes 270mm UniBus patch cable)

Spare UniBus patch cables
INTG-996791SS - UniBus Patch Cable 150mm
INTG-996791S - UniBus Patch Cable 220mm
INTG-996791L - UniBus Patch Cable 270mm
INTG-996791LL - UniBus Patch Cable 475mm
INTG-996791XL - UniBus Patch Cable 675mm

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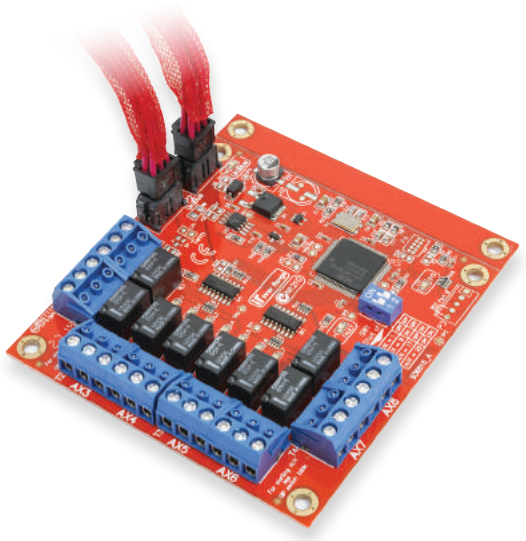
UniBus 8 Relay Auxiliary Expander

The UniBus 8 Relay Auxiliary Expander provides 8 independent, high current normally open or normally closed relay outputs, offering a general purpose interface in applications such as warning devices (strobes, etc.), building automation and process control.

The UniBus 8 Relay Expander is designed for installation within the same tamper-protected enclosure as its UniBus host module. The UniBus device is connected directly to the host module or another UniBus device via the UniBus patch cable supplied.



Host Module Compatibility

The UniBus 8 Relay Expander is compatible with the following UniBus Host Modules:

- Integriti ISC Controller (Part. INTG-996001 series) - Connect up to 4
- Integriti IAC Controller (Part. INTG-996035PCB&K) - Connect up to 4**
- Integriti 8 Zone RS-485 LAN Expander (Part. INTG-996005PCB&K) - Connect up to 4
- Integriti ILAM RS-485 LAN Access Module (Part. INTG-996018PCB&K) - Connect up to 2*

** Relays will mimic the Lock & DOTL outputs on ILAM doors 1-8 (Aux 1~16)*

***Relays can be used for general purpose outputs when mapped to Aux 1~16 on IAC, and will mimic the Lock & DOTL outputs on doors 1-8 when mapped to Aux 17~32*

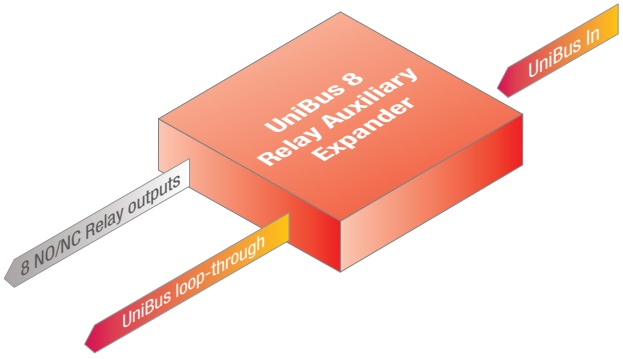
UniBus Device Compatibility Guide		UniBus Host Module			
		ISC	IAC	8 Zone Expander	ILAM
UniBus Device	8 Zone Expander	2	0	3	0
	8 Relay Expander	4	4	4	2
	2 Door / 2 Reader Expander	0	3	0	3
	16 Floor Lift Interface	6	6	6	6
	RS-232/RS-485 UART	4	4	0	0
	Analogue Expander	4	0	6	0
	2nd Network Interface Card	1	1	0	0

Features

- 8 Universal Relay Outputs
- Normally Open or Normally Closed Outputs per relay
- DIP switch addressable first Auxiliary (Relay) 1, 9, 17 or 25
- UniBus loop-through connectors
- 2 LED status/fault indicators
- Over-The-Wire firmware upgradable
- Integriti "C" size footprint 94 x 94mm
- Can be installed above other "C" size PCB's**
- A Snap off strip is included to allow installation above Integriti "B" size PCB's**

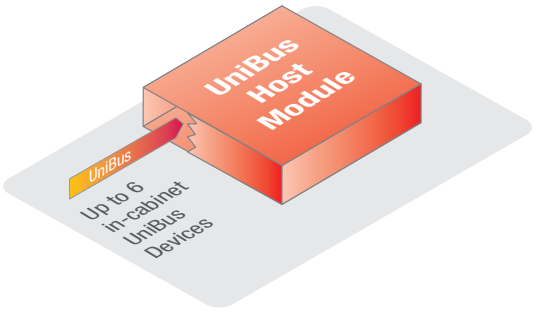
*** 35mm standoff kit required - Part Number 999009*

Connectivity



UniBus 8 Relay Auxiliary Expander

UniBus Installation



UniBus Devices are designed for installation within the same enclosure as the UniBus host module. A UniBus host can interface a maximum of six UniBus devices in any combination, provided they are all within the intended functionality of the host module

Specifications

Physical

PCB Size Code:	Integriti "C" size
PCB Size:	94(L) x 94(W) (mm)
PCB Size Including Snap Off Strip:	105(L) x 94(W) (mm)
Height:	15(D) (mm) (28mm with UniBus cable connected)
Installation Environment:	0ºC - 70ºC @15% - 90% Relative humidity (non-condensing)

Electrical

Power Supply Input:	11V to 14V DC via host module
Static Current Consumption:	45mA PLUS 16mA per relay Approximately 175mA when all Relays are on

Contact Rating

Maximum Switching Current:	1.0 Amp @ 24VDC. or 0.5 Amp @ 50VAC (Per Relay) NOTE: While the relays have higher AC Voltage contact ratings, the manufacturer does not recommend connection of AC voltages above 50VAC to the relay contact connections.

Connections

Relay Contacts:	8 x NO/NC outputs - 24 Connections
UniBus Port:	1
UniBus Loop-through Port:	1
Connection to Host Module:	Via 270mm UniBus patch lead (supplied)

Power Considerations

The UniBus host module supplies DET+ current and static device current to all connected UniBus devices.

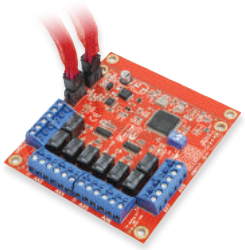
Total current consumption is, therefore the sum of all:

- Static Current of all connected UniBus devices
- Static Current of host module
- Host module battery charging current
- Ancillary devices connected to all DET+ connections
- Ancillary devices connected to host module's RS-485 LAN+

Compliance

Electrical	CE
Environmental	RoHS

Ordering Options



INTG-996515PCB&K
Integriti UniBus 8 Relay Auxiliary Expander PCB & Accessories (Includes 270mm UniBus patch cable)

Spare UniBus patch cables
INTG-996791SS - UniBus Patch Cable 150mm
INTG-996791S - UniBus Patch Cable 220mm
INTG-996791L - UniBus Patch Cable 270mm
INTG-996791LL - UniBus Patch Cable 475mm
INTG-996791XL - UniBus Patch Cable 675mm

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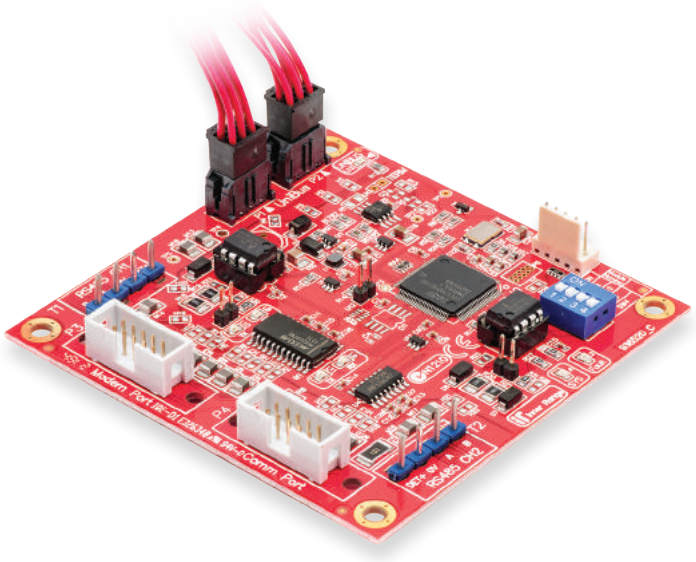
UniBus 2 Port RS-232/RS-485 UART

The UniBus 2 Port UART provides 2 high speed, software configurable, Serial Ports allowing connection of serial peripheral devices.

Up to 4 UniBus UART devices may be connected to an Integriti Security or Access Controller. DIP switch options allow each Port to be configured for RS-232 or RS-485 operation.

The UniBus 2 Port UART is designed for installation within the same tamper-protected enclosure as its UniBus host module. The UniBus device is connected directly to the host module or another UniBus device via the UniBus patch cable supplied.

Specific RS-232 cables are available separately for the connection of a computer, modem or other serial devices including the Inner Range GSM modem or Multipath IP STU.



Host Module Compatibility

The UniBus 2 Port UART is compatible with the following UniBus Host Modules:

- Integriti ISC Controller (Part. INTG-996001 series) - Connect up to 4
- Integriti IAC Controller (Part. INTG-996035PCB&K) - Connect up to 4

Aiphone GT Series Intercom Integration

Use the UniBus UART to interface to the Integriti - Aiphone GT Series DIN Rail Interface

See page 66 for further details.

IIS (Kenwei) Intercom Integration

Use the UniBus UART to interface directly to the IIS (Kenwei) Apartment Series Intercoms RS-485 LAN for a powerful integrated solution.

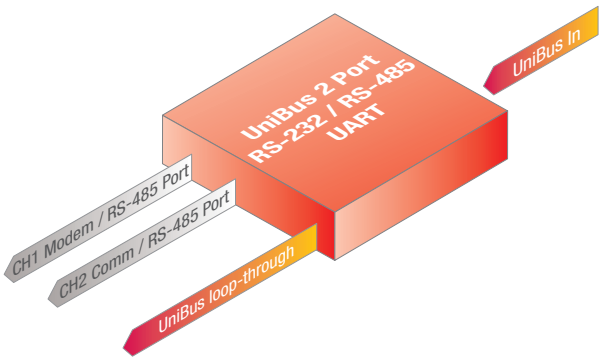
UniBus Device Compatibility Guide		UniBus Host Module			
		ISC	IAC	8 Zone Expander	ILAM
UniBus Device	8 Zone Expander	2	0	3	0
	8 Relay Expander	4	4	4	2
	2 Door / 2 Reader Expander	0	3	0	3
	16 Floor Lift Interface	6	6	6	6
	RS-232/RS-485 UART	4	4	0	0
	Analogue Expander	4	0	6	0
	2nd Network Interface Card	1	1	0	0

Features

- 2 Software configurable UART Ports
  - Channel 1 - RS-232 Modem / RS-485 Port
  - Channel 2 - RS-232 Comm / RS-485 Port
- DIP switch addressable module number 1, 2, 3 or 4
- DIP switch selectable CH1/CH2 mode, RS-232 or RS-485
- LED indication of CH1 & CH2 RX & TX activity
- LED UniBus status indicator
- 2 LED system status/fault indicators
- UniBus loop-through connectors
- Over-the-wire firmware upgradable
- Integriti "C" size footprint 94 x 94mm
- Can be installed above other "C" size PCB's**
- A Snap off strip is included to allow installation above Integriti "B" size PCB's**

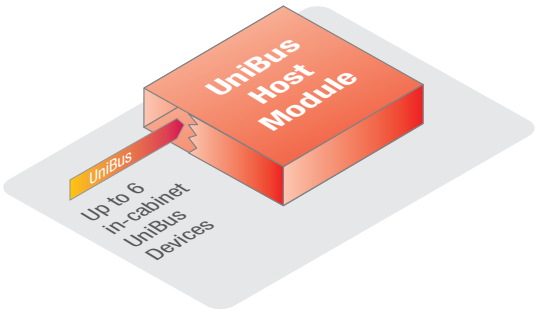
*** 35mm standoff kit required - Part Number 999009*

Connectivity



UniBus 2 Port RS-232/RS-485 UART

UniBus Installation



UniBus Devices are designed for installation within the same enclosure as the UniBus host module. A UniBus host can interface a maximum of six UniBus devices in any combination, provided they are all within the intended functionality of the host module

Specifications

Physical

PCB Size Code:	Integriti "C" size
PCB Size:	94(L) x 94(W) (mm)
PCB Size Including Snap Off Strip:	105(L) x 94(W) (mm)
Height:	15(D)(mm) (28mm with UniBus cable connected)
Installation Environment:	0ºC - 70ºC @15% - 90% Relative humidity (non-condensing))

Electrical

Power Supply Input:	11V to 14V DC via host module
Static Current Consumption:	40mA PLUS 5mA per active port

Connections

Port 1:	CH1 Modem Port or RS-485
Port 2:	CH2 Comm Port or RS-485
UniBus Loop-through Port:	1
Connection to Host Module:	Via 270mm UniBus patch lead (supplied)

Communications Formats

Port 1 (Modem):	Supports any Comms Task format that requires UART Serial Port communications, including all "Modem" Comms Task formats.
Port 2 (Comm):	Supports the Comms Task formats that utilize TXD/RXD and CTS/RTS for UART Serial Port communications. *"E Modem" and any formats that require CD, DSR, DTR or RI signals are not supported. Use Port 1 for these formats.*

Power Considerations

The UniBus host module supplies DET+ current and static device current to all connected UniBus devices.

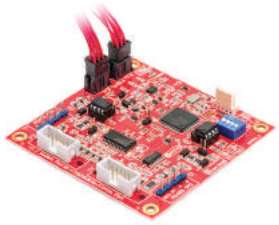
Total current consumption is, therefore the sum of all:

- Static Current of all connected UniBus devices
- Static Current of host module
- Host module battery charging current
- Ancillary devices connected to all DET+ connections
- Ancillary devices connected to host module's RS-485 LAN+

Compliance

Electrical	CE
Environmental	RoHS

Ordering Options



INTG-996520PCB&K
Integriti UniBus 2 Port RS-232/RS-485 UART PCB & Accessories (Includes 270mm UniBus patch cable)

Spare UniBus patch cables
INTG-996791SS - UniBus Patch Cable 150mm
INTG-996791S - UniBus Patch Cable 220mm
INTG-996791L - UniBus Patch Cable 270mm
INTG-996791LL - UniBus Patch Cable 475mm
INTG-996791XL - UniBus Patch Cable 675mm

Serial Port Patch Cables
993009 - Computer interface cable(DB9)
993026 - Serial Printer interface cable(DB25)
993027 - Modem interface cable(DB25)
993035 - Securitel interface cable(Flying leads)
995009 - Internal PC Interface cable kit.

Installed inside the cabinet to the DB9 knockout, to provide an external DB9 serial connection.

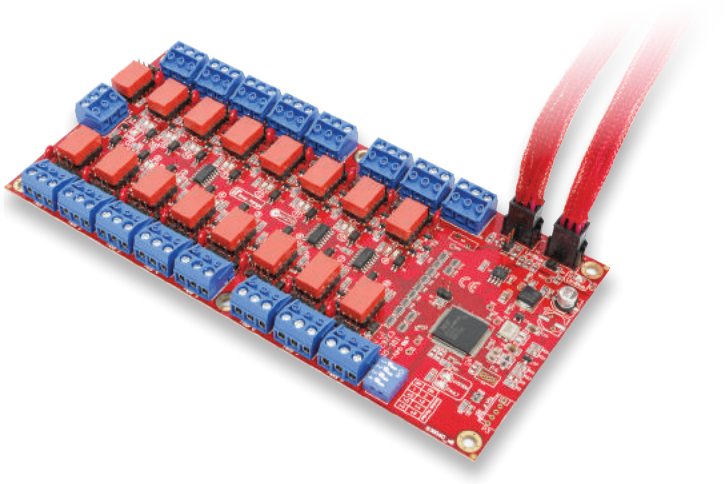
DATA SHEET

UniBus Lift Interface (Button Feedback)

The UniBus 16-Floor Lift Interface device provides an efficient integration between the Integriti Security System and a lift system. This facilitates managed and secure floor access for users within multi-story buildings and apartment blocks. The UniBus Lift Interface device utilises a low-level button feedback interface between Integriti and the lift system. It incorporates input conditioning and switching to provide the isolation required between the two systems.

Using an Integriti UniBus cable, the device connects directly to the Integriti host module or via another UniBus device.

Up to 6 UniBus 16-Floor Lift Interface devices can be connected to a single host module to provide access control for a single lift car servicing up to 96 floors. (Multiple lift cars require multiple host modules)

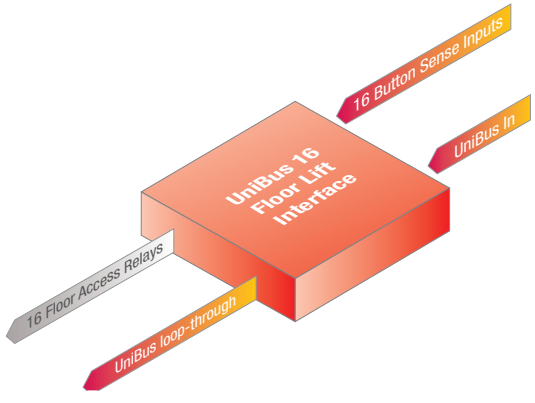


UniBus Device Compatibility Guide		UniBus Host Module			
		ISC	IAC	8 Zone Expander	ILAM
UniBus Device	8 Zone Expander	2	0	3	0
	8 Relay Expander	4	4	4	2
	2 Door / 2 Reader Expander	0	3	0	3
	16 Floor Lift Interface	6	6	6	6
	RS-232/RS-485 UART	4	4	0	0
	Analogue Expander	4	0	6	0
	2nd Network Interface Card	1	1	0	0

Features

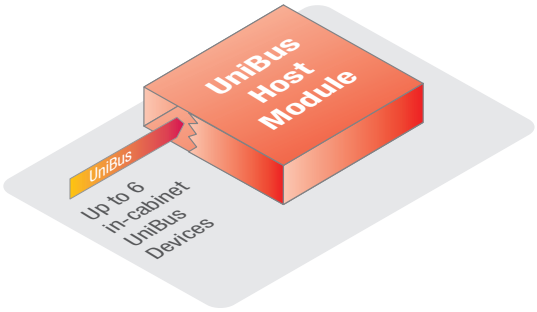
- Low level with button feedback UniBus connectivity
- Compatible with a range of Integriti host modules
- Manage 16 floors per device
- Connect up to 6 devices per Integriti host module
- Wide range of button input voltages
- Button sense input per floor
- Override input to allow free access mode
- Isolation between lift and Integriti system
- Firmware upgrades over-the-wire

Connectivity



UniBus Lift Interface (Button Feedback)

UniBus Installation



UniBus Devices are designed for installation within the same enclosure as the UniBus host module. A UniBus host can interface a maximum of six UniBus devices in any combination, provided they are all within the intended functionality of the host module

Specifications

Physical

PCB Size Code:	Integriti "B" size
PCB Size:	200(L) x 94(W) (mm)
Height:	15(D) (mm) (28mm with UniBus cable connected)
Installation Environment:	0ºC - 70ºC @15% - 90% Relative humidity (non-condensing)

Electrical

Power Supply Input:	11V to 14V DC via host module
Static Current Consumption:	55mA PLUS 16mA per relay. Approximately 310mA when all relays are on

Contact Rating

Maximum Switching Current:	500mA @ 16 – 48V DC/AC RMS 200mA @ 60 – 110V DC/AC RMS (30W / 62.5VA) 50VAC

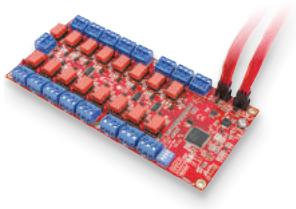
Connections

Relay Contacts:	16 x NC outputs
Override Input:	1
Button Sense Inputs:	16
UniBus Port:	1
UniBus Loop-Through Port:	1
Connection to Host Module:	Via 270mm UniBus patch lead (supplied)

Compliance

Electrical	CE
Environmental	RoHS

Ordering Options



INTG-996540PCB&K
Integriti UniBus 16 Floor Lift Interface device PCB & Accessories (Includes 270mm UniBus patch cable)

Spare UniBus patch cables
INTG-996791SS - UniBus Patch Cable 150mm
INTG-996791S - UniBus Patch Cable 220mm
INTG-996791L - UniBus Patch Cable 270mm
INTG-996791LL - UniBus Patch Cable 475mm
INTG-996791XL - UniBus Patch Cable 675mm

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DATA SHEET

EliteX OLED Keypad

elitex KEYPAD

The EliteX OLED 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 Integriti 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 display shows plain text navigation through operations and alarms, events and items are presented by name.

The keypad's 8 indicator LEDs can also display the real-time status of the security system.

For the Installer, EliteX can be used to program the entire Integriti system. (Macros excluded). This allows the installer to make quick and efficient changes as needed without need to access the Integriti software. The EliteX supports 12 Languages.

SIFER Reader option for EliteX.

A plug-on SIFER Reader kit is available for the EliteX Keypad. With this option fitted the keypad can be used as a reader for access control on doors or for high security "Card & PIN" dual credential authentication for login access to the Keypads menus.

Features

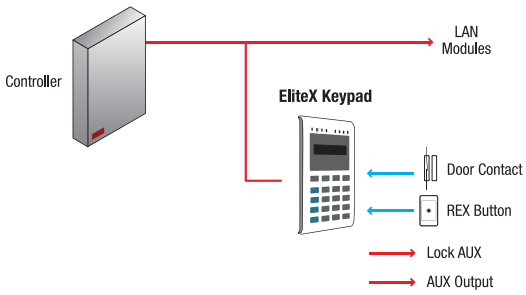
- Clear and easy to read 2-Line OLED display
- Programmable backlight brightness suitable for bright or low-light environments
- Slimline surface mount design
- Stylish design and neutral colours will look great in any environment
- Design style compliments the PrismaX Keypad (colour screen model)
- Backlit rubberised keypad provides a user-friendly tactile feel
- Eight LEDs provide area status, door functions, alarms and other conditions via programming options
- Instant help text available anytime, at the press of a key
- Multilingual firmware as standard (12 languages)
- Four arrow keys provide quick and convenient access to menu options
- Zone inputs and auxiliary outputs provided for connection of local I/O devices
- Programmable panic key and duress option
- Built-in module locater buzzer
- Tamper monitored housing
- Compatible with Integriti, Inception & Concept 4000 Systems

Features with SIFER Reader kit fitted

- Support for all SIFER credentials
- Support for 13.56Mhz cards(CSN Only)
- Support for Card access control
- Support for Card & PIN access control
- Support for Card only terminal login
- Support for Card & PIN terminal login

Connectivity

The EliteX Keypad is connected directly to the Integriti RS-485 LAN. Up to 99 Keypads may be installed per Integriti Controller.



Ordering Options

INTG-995400
EliteX Keypad

INTG-994721PCB&K
Plug-on SIFER Reader kit to suit EliteX or PrismaX Keypads

INTG-999059X
Security shroud to suit PrismaX/EliteX Keypad

Specifications

Physical

Housing Dimensions:	152(H) x 90(W) x 18(D) (mm)
Installation Environment:	0° - 50°C @ 15% to 85% relative humidity (non-condensing)

Electrical

Input Voltage:	11V – 14V DC
Operational Current:	14.4mA (Back-light & LEDS off), 42mA (Back-light & LEDS max brightness)
Operating Current with SIFER PCB:	46mA (Back-light & LEDS off), 186mA (Peak, Back-light & LEDS max brightness)
Auxiliary Open Collector Output Current:	18VDC, 500mA maximum each (PTC protected)

Display & Indicator Brightness

Display/ Keypad:	Variable brightness via programming (Can be turned off)
LED Indicators:	Variable brightness via programming

Indicators & I/O's

LED Indicators:	8
Aux Outputs (Open collector):	2
Universal I/O's:	2 (Input mode is compatible with original Elite, or EOL/Multi-state compatible)

Compliance

Electrical	CE
Environmental	RoHS

PrismaX Colour Graphic Keypad

prismaX KEYPAD

Sharing the same attractive design style as the EliteX, the PrismaX Keypad boasts a full-colour LCD display. End-users will delight in using the PrismaX keypad, with large clear text and icon-driven menus control of the Integriti system is made simple.

Just some of the functions supported include monitoring and acknowledging alarms and events, arming/disarming, unlocking/locking doors, controlling automation functions and isolating zones. Eight dual colour status LEDs can be used to display the armed/disarmed state of areas or for other intruder, access control or automation purposes. An in-built temperature sensor displays the room temperature and can also be integrated into the system for building automation control.

SIFER Reader option for PrismaX
A plug-on SIFER Reader kit is available for the PrismaX Keypad. With this option fitted the keypad can be used as a reader for access control on doors or for high security "Card & PIN" dual credential authentication for login access to the Keypads menus.

Please note: The PrismaX Keypad is designed as an end user interface for the Integriti system and as such only the end user related menus are supported. Where access to installation and commissioning menus is required the EliteX Keypad is recommended.

Features

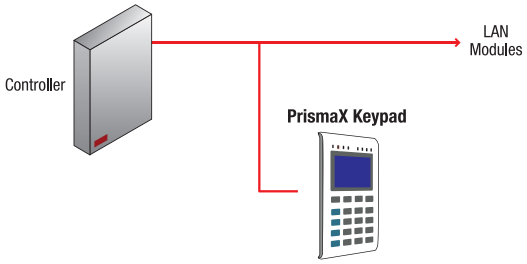
- Elegant slimline surface mount design
- Full colour LCD backlit screen
- Large – easy to read text
- Four arrow keys provide quick and convenient access to options in the graphic interface menu
- Tamper monitored housing
- Light sensitive auto-dimming brightness for LCD, Keypad and LED's
- Backlit rubberised keypad provides a user-friendly tactile feel
- Local temperature display
- 8 LED indicators for Area status display
- Instant help text available anytime, at the press of a key
- Programmable panic key and duress option
- Compatible with Integriti Systems only

Features with SIFER Reader board fitted

- Support for all SIFER credentials
- Support for 13.56Mhz cards(CSN Only)
- Support for Card access control
- Support for Card & PIN access control
- Support for Card only terminal login
- Support for Card & PIN terminal login

Connectivity

The PrismaX Keypad is connected directly to the Integriti RS-485 LAN. Up to 99 Keypads may be installed per Integriti Controller.



Ordering Options

INTG-996400
Integriti PrismaX Keypad

INTG-994721PCB&K
Plug-on SIFER Reader kit to suit PrismaX or EliteX Keypads

INTG-999059X
Security shroud to suit PrismaX/EliteX Keypad

Specifications

Physical	
Housing Dimensions:	152(H) x 90(W) x 18(D) (mm)
Installation Environment:	0° - 50°C @ 15% to 85% relative humidity (non-condensing)
Electrical	
Input Voltage:	11V – 14V DC
Operational Current :	Auto current limiting typically less than 100mA @12V (270mA Peak)
Operating Current with SIFER PCB:	Auto current limiting typically less than 100mA @12V (300mA Peak)
Indicators	
Speaker:	8-bit digital sound
LED Indicators:	Array of 8, Auto-dimming bi-colour LED
User Interface	
LCD Screen:	320 x 240 (QVGA) colour LCD
LCD Backlight:	Variable brightness via programming, Auto-dimming (Can be turned off)
Keypad Backlight:	Variable brightness via programming, Auto-dimming (Can be turned off)
System Outputs	
LED Indicators:	8
Beeper/Speaker:	1
Compliance	
Electrical	CE
Environmental	RoHS

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DATA SHEET

Weatherproof Keypad

The Weatherproof Keypad sports an incredibly robust design that is dust proof and highly water resistant. Rated to IP65, the solid aluminium case is stylish and vandal resistant.

Perfect for gate or door access control where the Keypad will be exposed to the environment. In addition to the single door/gate access control, users may also separately arm/disarm their alarm system or just their tenancy. Visible feedback of "valid/invalid PIN" and "area armed/disarmed status" is provided through the LEDs.

This wholly Inner Range solution does not require special user configuration (unlike previous solutions using third party products). All users have access to PIN code functionality, similar to that of a normal EliteX or PrismaX Keypad, but restricted to the connected door/area associated with the Keypad or user.

Features

Keypad

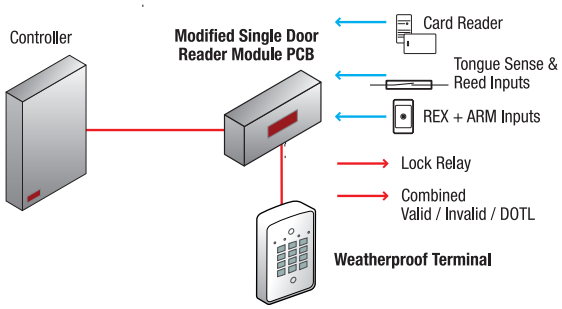
- Attractive, rugged case is highly vandal resistant
- Completely dust proof and highly water resistant IP65 rated case with no moving parts
- Control one door per keypad
- Control a security area associated with the door or user's special area
- Piezo effect push buttons with audible feedback
- Easy to install
- Displays login status and area status with "Code" and "Armed" LEDs
- Keypad lockout feature if >3 or 10 incorrect logins in a row
- Extendable flying leads provide option to house Reader Module in more sheltered location.

Reader Module PCB

- Provides reed and tongue sense monitoring
- Request to Enter (REN) and Request to Exit (REX) inputs provided
- On-board lock relay
- Fuse protection of keypad power

Connectivity

The Weatherproof Keypad is connected to the Controller RS-485 LAN through the supplied Reader Module. (Check memory allocations for module quantity with Concept Systems)



Specifications

Physical

Keypad Dimensions:	120(L) x 65(W) x 27(D) (mm)
Keypad Installation Environment:	-30º to +60º Celsius and 0 to 95% relative humidity (non-condensing). IP65 Moisture & Dust rating
PCB Dimensions:	95(L) x 95(W) (mm)
PCB Installation Environment:	0° – 50°C @ 15% to 85% Relative humidity (non-condensing)

Electrical

Input Voltage to PCB:	11-14VDC (Typically from separate power supply)
Operational Current:	Standby: 40mA
	Logged on: 45 to 55mA
	With lock relay active: 72mA
	All Auxiliaries active: 180mA
Fuse Protection:	500mA (Keypad/Reader power)

Inputs

Zone Inputs:	5 (May have predefined functions depending on programming options selected, i.e.: Door Reed, REX, REN, Tongue Sense and Arm button)
Reader Ports:	1 (used for keypad)

Outputs

Relay:	1 (Typically used for door lock)
Outputs (Open Collector):	5 (3 reserved for Valid/Invalid, Area Armed/Disarmed indication, keypad beeper)

Ordering Options

995010
Weatherproof Keypad (short form kit containing keypad and reader module PCB.
Requires external power supply).

995010PCB&K
Weatherproof Keypad PCB (supplied with PCB only)

Paradox RF Expander Module

The Inner Range - Paradox RF module is a cost-effective wireless RF solution that allows Paradox Magellan Wireless PIR's, reed switches, smoke detectors and remote control fobs to function on the Integriti or Concept Systems. Wireless functionality is added to the Inner Range Controller with the inclusion of Paradox Magellan wireless devices, with each Paradox Expander Module supporting 32 wireless detection zones (PIR's, reed switches and smoke detectors). The interface supports monitoring low battery alarms for all wireless devices.

The Paradox REM2 and REM3 remote control fobs provide bi-directional audible and visual feedback when arming or disarming the system and when controlling output auxiliaries. In addition to this, the REM 2 & 3 remotes feature an information button which can be used to indicate the current status of the security area.

All fobs feature buttons which can be programmed to provide different actions and four or six digit wireless PIN verification is also provided when using the REM3 remote control unit.

Paradox wireless devices:

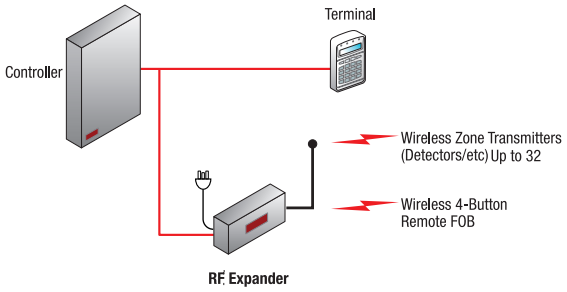
- Remote Controls & Fobs
- Motion Detectors
- Wireless Door Contacts (Reed Switches)

Features

- The Paradox RF Expander connects directly to the Integriti or Concept RS-485LAN
- Each expander will provide up to 32 wireless detection zones
- Cost effective RF Wireless Solution
- Fully compatible with selected Paradox Magellan wireless devices, Detectors, Door Contacts, RF Fobs and Smoke Detectors
- Bi-directional wireless audible & visual feedback on selected RF Fobs for area arming/disarming and output control
- Wireless PIN entry using selected models of RF Fobs
- Low Battery supervision & reporting from all wireless devices
- Wireless panic input

Connectivity

The RF expander is connected directly to the Controller RS-485 LAN. (Check memory allocations for module quantity with Concept Systems)



Specifications

Physical

Enclosure Dimensions:	150(L) x 166(W) x 32(D) (mm) (Not including antennae)
Installation Environment:	0° - 50°C @ 15% to 85% Relative humidity (non-condensing)

Electrical

Input Voltage:	PCB 11-14VDC (operational current 65mA)
Zone Inputs:	32 wireless zones
Key Fobs:	1 per user in Integriti Limit of 100 Fobs in Concept depending memory configuration

System Inputs

	Transmitter Low Battery, Transmitter Poll Fail and RF Jam, Cabinet Tamper, Module Low Volts,
	LAN Fail and Module Low Battery, RF Frequency Band RF Frequency 433.92MHz

Compatibility

Requires Concept 4000 Control module firmware V7.61 or newer. If Insight software is being used Version 4.2 or newer is required for full compatibility.

PIR's:	PMD1P, PMD75, PMD85
Wireless Door Contacts:	DCT10, DCTXP2, DCT2
Remote Control FOBS:	REM1, REM15, REM2, REM3
Asset Protector:	GS250
Panic Pendant:	REM101
Smoke Detectors:	SD738

Ordering Options

995025
RF Module Paradox (433 Mhz)

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DATA SHEET

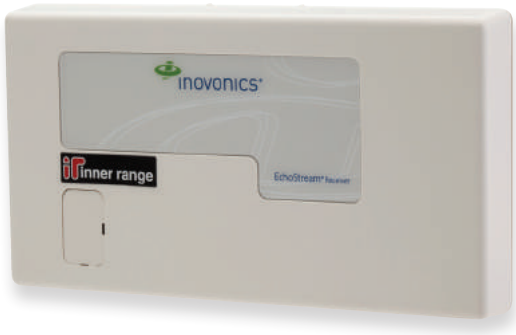
Inovonics RF Module

The Inner Range - Inovonics™ RF Expander is an RS-485 LAN based module which provides an interface for Inovonics™ Echostream wireless security transmitters such as detectors, universal transmitters and user pendants.

Up to 32 detectors can be monitored by each Module. User pendant transmissions can be received via any RF Expander Module in the system.

The range of an RF system can be expanded by using Inovonics™ Repeater units which allow RF signals to be forwarded onto the Expander Module.

User pendants and security transmitters can be easily registered into the Integriti system.

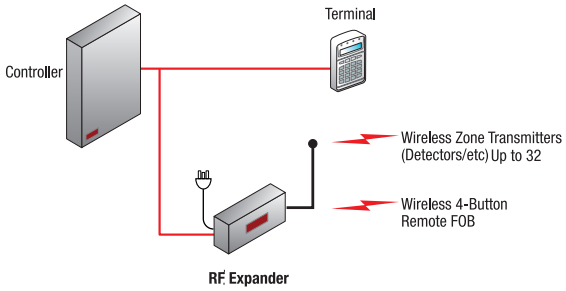


Features

- The Inovonics RF Expander connects directly to the Integriti or Inception RS-485 LAN
- Each Expander will provide up to 32 wireless detection zones
- Low Battery supervision & reporting from all wireless devices
- Frequency selectable to suit AU/NZ RF bands
- PCB only kit option available (for Europe only)
- World-renowned high quality RF wireless solution
- Fully compatible with Inovonics security range of transmitter devices including:
    - Body Worn Pendant Transmitters
    - Fixed Position Hold Up Pendant Transmitters
    - Universal Transmitters - Reed Switches/Contacts
    - Smoke Detectors
    - Glassbreak Detectors
    - PIR Motion Detectors
    - High Power Repeaters
- See the Inovonics Security Product Guide Australia / New Zealand for further details

Connectivity

The RF expander is connected directly to the Controller RS-485 LAN.



Specifications

Physical

Enclosure Dimensions:	165(L) x 92(W) x 28(D) (mm)
Installation Environment:	0° - 50°C @ 15% to 85% Relative humidity (non-condensing)

Electrical

Input Voltage:	PCB 11.5-14VDC (operational current 115mA)
Zone Inputs:	32 wireless zones
Key Fobs:	1 per user, only limited by user quantity available in controller

Inputs

	Transmitter Low Battery, Transmitter Poll Fail and RF Jam, Cabinet Tamper, Module Low Volts, LAN Fail and Module Low Battery

Compatibility

	Compatible with Integriti ISC/ IAC Controllers and Inception Controllers

Frequency Bands

Australia:	915-928 MHz
New Zealand:	921-928 MHz
Europe:	PCB Version only (For field installation into Inovonics EE4000 868-870 MHz Euro Receivers)

Ordering Options

996008
Inovonics RF Module (AU & NZ Only)

INTG-996008EUPCB&K
Inovonics Interface Module (PCB&Kit for Europe Only)

Aiphone GT Series - Integriti Interface

The Aiphone - Integriti Interface module is a small (2-Pole) DIN rail mount device which allows Integriti to receive events from Aiphone GT series intercom systems.

The module provides the communication link between the Aiphone 2 wire bus and the Integriti RS-485 UART port and allows Integriti to monitor events from lobby entrance and apartment based intercom stations.

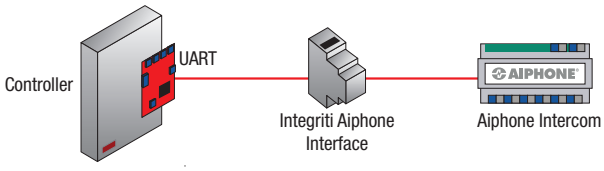
Where visitor access is granted by way of pressing the unlock button on the apartment intercom station, Integriti can listen to that request from the Aiphone system and subsequently unlock a door and/or provide the visitor with lift access to the appropriate floor.

Features

- Provides Integration between Aiphone GT series intercoms and the Integriti Access Control system
- Allows Integriti to unlock doors and/or provide lift/floor access for visitors based on intercom events
- Support for up to 250 apartment intercom stations
- Support for up to 4 lift cars
- Optically isolated communications
- Small DIN rail mount 2-Pole enclosure
- Can be installed alongside the DIN rail mounted Aiphone Intercom system
- Compatible with Aiphone GT series 2-wire intercom systems

Connectivity

The Integriti Aiphone Interface is connected to the Integriti Unibus UART RS-485 port and the Aiphone 2-wire Bus



Specifications

Physical

Enclosure Dimensions:	88(L) x 37(W) x59(D) (mm) (2-Pole DIN)
DIN Rail Compatibility:	35mm DIN rail
Installation Environment:	0° - 50°C @ 15% to 85% Relative humidity (non-condensing)

Electrical

Input Voltage Integriti:	Integriti UART RS-485 Port 11.5-14VDC, 7mA
Input Voltage Aiphone:	Aiphone 2-wire LAN 24VDC, 3.2mA

Communications

Integriti UART Configuration:	9600 Baud, 8 data bits, 1 Stop bit, Odd parity

Compatibility

Electrical	CE
Environmental	RoHS

Ordering Options

INTG-994210
Aiphone - Integriti Interface Module
(Due for release mid 2017)

integriti

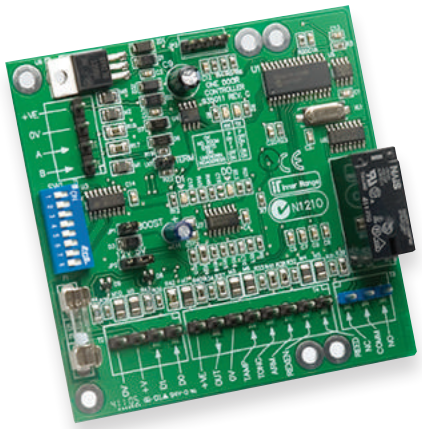
DATA SHEET

Single Door Access Module

Designed as a cost-effective and space-saving single door module, this device is perfect for organisations that only require a small number of access control doors or where installation space is a premium.

The Single Door Access Module supports one door, one Wiegand card reader and the required inputs and outputs for the control and monitoring of a single door. A single auxiliary output is provided for use as a general purpose output or to control reader LEDs and/or buzzers, indicate "Door Open Too Long" (DOTL), or used for "Valid/Invalid" feedback.

Configuration options allow for a broad range of card reader technologies and support is provided for multiple card reader formats.

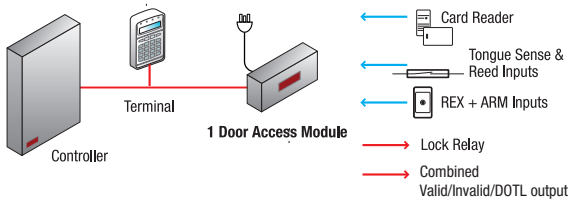


Features

- Supports magnetic swipe or Wiegand card readers without the need for an additional interface
- Standard version supports offline database of up to 31 backup cards
- Provides reed and tongue sense monitoring
- Request to Enter (REN), Request to Exit (REX) & Arm inputs provided
- Door Open Too Long (DOTL), valid and invalid output
- On-board lock relay
- Fuse protection of reader power

Connectivity

The 1 Door Access Module is connected directly to the Controller RS-485 LAN. (Check memory allocations for module quantity with Concept Systems)



Specifications

Physical

PCB Dimensions:	95(L) x 95(W) (mm)
Installation Environment:	0°C - 50°C @15 - 85% Relative humidity (non-condensing)

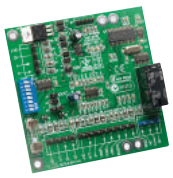
Electrical

Input Voltage to PCB:	11-14VDC (Typically from separate power supply)
Operational Current:	15mA
Max:	25mA with lock relay active. (NOT including Reader or Auxiliary Out current)
Fuse Protection:	500mA

Connections

Zone Inputs:	4 (May have predefined functions depending on programming options selected, i.e.: Door Reed, REX/REN, Tongue Sense and Arm button)
Reader Ports:	1
Outputs:	Relay 1 (Typically used for door locks)
Auxiliary Outputs (open collector):	1 (Typically used for Valid/Invalid indication)

Ordering Options

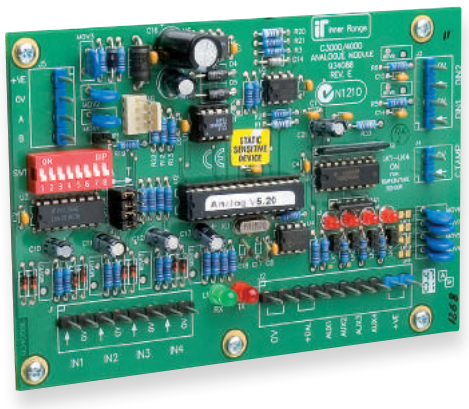


995011PCB&K
1 Door Access Module

Analogue Module

The Analogue Module provides the capability to monitor, report and action on analogue values within an Integriti or Concept system. This module can be programmed to operate an auxiliary when an analogue level from one or more of its independent analogue inputs exceeds or goes below a pre-programmed trigger point. Analogue levels can be monitored and controlled in scaled units through the Integriti software or at any EliteX Terminal.
The Analogue Module allows the programmer a variety of selectable mode settings and levels with which to configure the system to the particular application. The trigger point, output auxiliary, tamper levels and hysteresis values may be individually selected for each input.

The Analogue Modules requires firmware 5.20 or later for Integriti compatibility.



Features

- Four independent analogue inputs, each with its own programmable 'trigger point'
- 0-5V or 4-20mA types available • 8-bit resolution, 1% accuracy
- Compatible with the Serial Temperature Sensor (995089)
- LAN voltage monitoring
- Cabinet tamper input • Four output auxiliaries
- Two general purpose digital inputs (no EOL resistors)

Specifications

Physical

Cabinet Dimensions:	305(L) x 140(W) x 72(D) (mm)
PCB Dimensions:	140(L) x 95(W) (mm)
Installation Environment:	0°C - 50°C @15 - 85% Relative humidity
	(non-condensing)
Cabinet Dimensions (Temp Sensor):	116(L) x 77(W) x 14(D) (mm)

Electrical

Input Voltage to PCB:	11-14VDC
Operational Current:	~30mA
Input Voltage to PCB (Temp Sensor):	5VDC (1mA) from host Analogue Module

Inputs

Zone Inputs:	4 Analogue inputs, 2 general purpose zone Inputs
Input Range: Voltage Option:	0-5VDC uni-polar referenced to 0V input terminal
Current Loop Option:	4-20mA DC polarised, input termination resistor selectable
Input Impedance:	10kOhm set by input termination resistor. (ADC Input Impedance~10MOhm)
ADC Resolution:	8bit
Input Resolution:	20mV
Over Voltage Protection:	Yes
ESD Protection:	Yes

Outputs

Outputs (open collector):	4
Max. Switchable Current per output:	200mA
Max. Combined Output Current:	To be included within the constraints of the power supply source

Sensor Specification

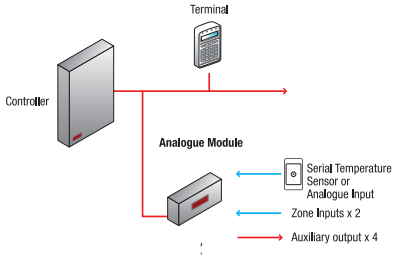
Temperature Range (Temp Sensor):	0°C - 125°C or -55°C - +70°C Resolution +/- 0.5°C

Accuracy

Temperature Sensor:	0°C - 70°C +/- 0.5°C, 70°C - 85°C +/- 1.0°C, 85°C - 125°C +/- 2.0°C

Connectivity

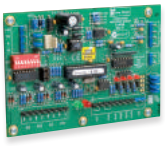
The Analogue Module is connected directly to the Integriti/Concept RS-485 LAN. (Check memory allocations for module quantity with Concept Systems).



Ordering Options

995088
Analogue Module (Voltage Mode) in metal enclosure
995088C
Analogue Module (Current Mode) in metal enclosure

995088PCB&K
Analogue Module (Voltage Mode. Short form kit)



Serial Temperature Sensor

The sensor records the temperature and converts it to an 8-bit digital value. The digital data is then sent to the Analogue Module to be processed. Each Serial Temperature Sensor is supplied with a wall mounting kit and requires no further calibration.

995089
Serial Temperature Sensor

integriti

DATA SHEET

LAN Over Ethernet Module (CLOE)

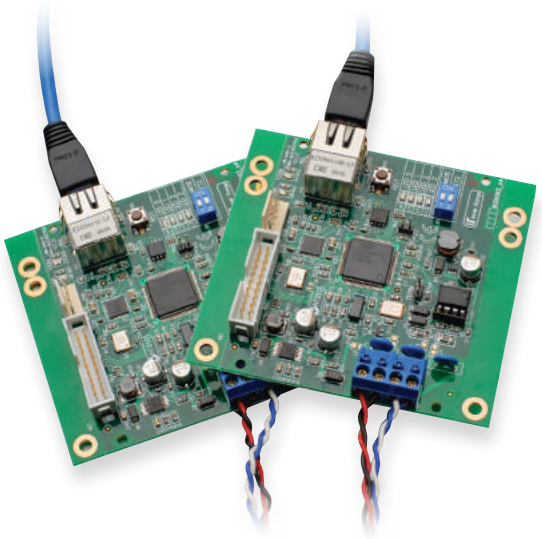
The LAN over Ethernet Interface (CLOE) provides a convenient interface for the Integriti or Concept RS-485 LAN to be distributed over standard TCP/IP Ethernet networks.

Ethernet connectivity allows the RS-485 LAN to operate over an IP network architecture including 802.3i (10baseT) and 802.3U (100baseT) switching and routing equipment. Wireless communications can also be achieved using a wireless router and Ethernet / 802.11 point to point RF solutions.

CLOE provides the full flexibility of Ethernet networks while maintaining the high security and scale of the standard RS-485 LAN architecture.

The CLOE system supports the TCP/IP protocol with all data encrypted using 128 bit AES encryption. Security is monitored in all RS-485 segments of the LAN providing alarms for network outages or module substitution conditions.

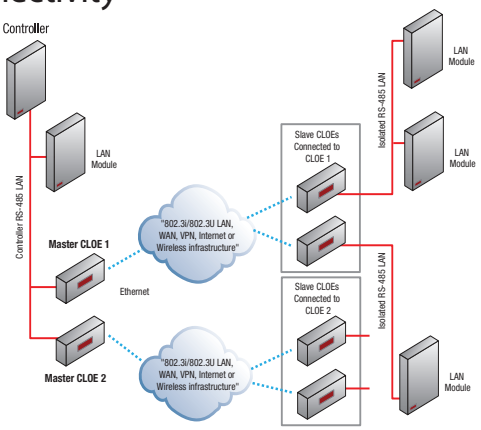
Every CLOE module can be assigned as a master or a slave via initial setup options and the master unit is configured with a static IP address while the slave units support static or dynamic addressing. The use of Ethernet networks also provides the added benefit of electrical isolation between RS-485 LAN segments.



Features

- Compatible with Integriti, Inception or Concept 4000 RS-485 LAN
- Transmit the RS-485 LAN over Ethernet Networks
- Convert Standard RS-485 LAN Modules into Ethernet LAN Modules
- Serial communication speeds of up to 19200 baud
- Extend the Integriti, Inception or Concept 4000 LAN distance
- Use wireless IP technologies to save wiring costs
- Use existing IP Networks to save wiring time & costs
- Deploy single Control Modules across multiple sites
- Provide electrical isolation between RS-485 LAN segments
- AES 128 bit encryption

Connectivity



Specifications

Physical

PCB Dimensions:	95(L) x 95(W) (mm)
Installation Environment:	0°C-50°C @ 15% to 85% Relative humidity (non-condensing)

Electrical

Input Voltage to PCB:	(11-14VDC)
Operational Current:	Typical: ~65 mA Max: 110mA
Ethernet LAN:	10baseT / 100baseT (802.3i / 802.3U)
Ethernet Connector:	RJ45

Ordering Options

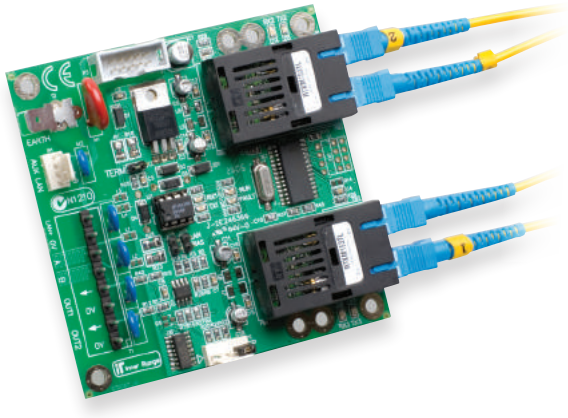
995093
LAN Over Ethernet Module

The Inner Range Fibre Modem provides two separate, optically isolated ports to the Integriti, Inception or Concept system LAN. A set of Fibre Modems is ideal for applications where modules are separated in different buildings and/or are separated by large distances.

In terms of an Integriti, Inception or Concept system, Fibre Modem links boost maximum LAN distance while providing immunity to earth loops, induced electrical noise and propagation of pulses from lightning strikes by virtue of the optical isolation.

The modems have two fibre ports which enable sets of Fibre Modems to be arranged in 'branch' or 'loop' configurations. Each fibre port utilises a pair of fibres per link to provide full-duplex communication. Up to 5 Fibre Modems can be connected in series.

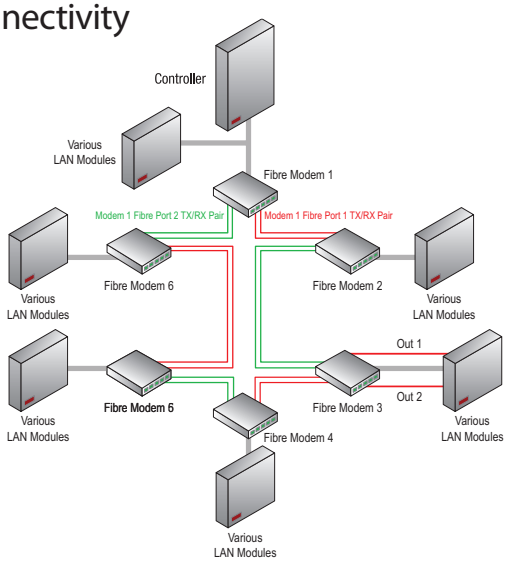
Both Single Mode and Multimode versions of the Fibre Modem are available.



Features

- Multimode Fibre Modems extend Controller LAN up to 3Km
- Single Mode Fibre Modems extend Controller LAN up to 13Km
- Electrical isolation from the remote LAN
- Fibre links immune to earth loops and induced noise
- Immune to propagation of electrical pulses due to lightning
- Supports loop and branch ("Y") configurations
- Redundant LAN path when Fibre Modems used in 'loop' configuration
- 'Loop Fault' and 'Branch Fault' auxiliary outputs

Connectivity



Specifications

Physical

Enclosure Dimensions:	238(L) x 118(W) x 74(D) (mm)
PCB Dimensions:	96(L) x 96(W) (mm) Note: Fibre Connector heads protrude 15mm from PCB
Installation Environment:	0° – 50°C @ 15% to 85% Relative humidity (non-condensing)
Fibre Optic Connections:	Type ST. 62.5/125 820nm multimode cable (Multimode)
	Type SC. 9/125 1310nm single mode cable (Single Mode)

Electrical

Input Voltage to PCB:	11-14VDC (From LAN or separate battery-backed external power supply)
Operational Current:	Min.: 20mA (idle) Max.: 120mA

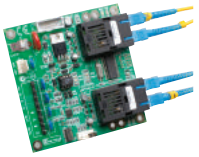
Optical

Tx Optical Power:	-12dBm (typical)
Rx Optical Power:	-24dBm (minimum for logic operation)
Max. Modem to Modem Optical Cable Distance (Multimode):	3km
Max. Modem to Modem Optical Cable Distance (Single Mode):	13km

Note: Single Mode Fibre Modem (995087) is supplied in the same plastic enclosure as the Multimode Fibre Modem (995081).
There is also provision to mount Fibre Modem PCBs in the Low Profile Enclosures along with Control Module and Expander Module PCBs

Ordering Options

995081
Multimode Fibre Modem



995087
Single Mode Fibre Modem

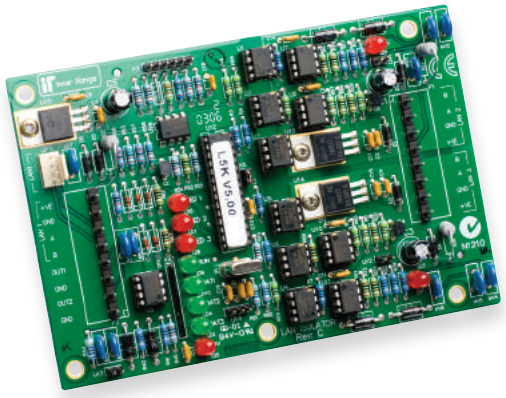
integriti

DATA SHEET

LAN Isolator

The LAN Isolator affords an Integriti, Inception or Concept system with optical isolation of RS-485 LAN wiring. It features 2 optically isolated sections (branches) which can be combined to work in an optional LAN 'loop' mode. The elimination of electrical connection between LAN sections serves as a means to break earth loops as well as extending the length of the LAN. Each LAN Isolator amplifies the signal and provides an additional 1500m of LAN distance.

In addition to this, the LAN Isolator monitors its LAN sections and can isolate sections of the LAN where problems are discovered. Also provided are outputs to indicate the status of the LAN allowing LAN section status and alarms to be reported as required.

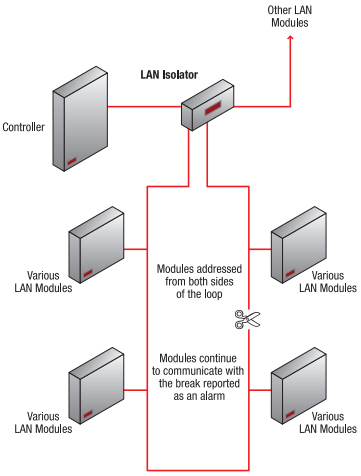


Features

- 5kV isolation between LAN sections
- Can help eliminate earth loops in the LAN
- Improved anti-surge protection
- Improved signal to noise ratio over longer cable runs
- Two downlink ports on each unit allow monitored 'Loop' wiring or two separate downlink 'Branches'
- Supports loop and branch ("Y") configurations
- Protects sections of the LAN from faults or tampering in other sections
- 'Loop Fail' and 'Branch Isolated' alarm outputs can be wired into any standard zone input
- Plastic enclosure supports base and cover tamper switches

Connectivity

The LAN Isolator is connected directly to the Controller RS-485 LAN. The configuration shown is loop mode, it can also be deployed as 2 separated branches.



Specifications

Physical

Cabinet Dimensions:	305(L) x 140(W) x 72(D) (mm)
PCB Dimensions:	140(L) x 92(W) (mm)
Installation Environment:	0° – 50°C @ 15% to 85% Relative humidity (non-condensing)

Electrical

Input Voltage to PCB:	11-14VDC (From LAN or separate battery backed external power supply)
Operational Current (Standby):	LAN1 section: 28mA, LAN2 or LAN3 section: 15mA
Operational Current (Busy):	LAN1 section: 65mA, LAN2 or LAN3 section: 30mA
Isolation:	LAN1 - LAN2: 5kV, LAN1 - LAN3: 5kV
Alarm Outputs:	'Loop Fail' and 'Branch Isolated'

Ordering Options

995080
LAN Isolator in metal enclosure

995080PCB&K
LAN Isolator short form kit

Multipath-IP

Multipath-IP

Multipath IP

Intelligent Alarm Transmission Systems

Multipath iP Alarm Monitoring

Intelligent Alarm Transmission Systems

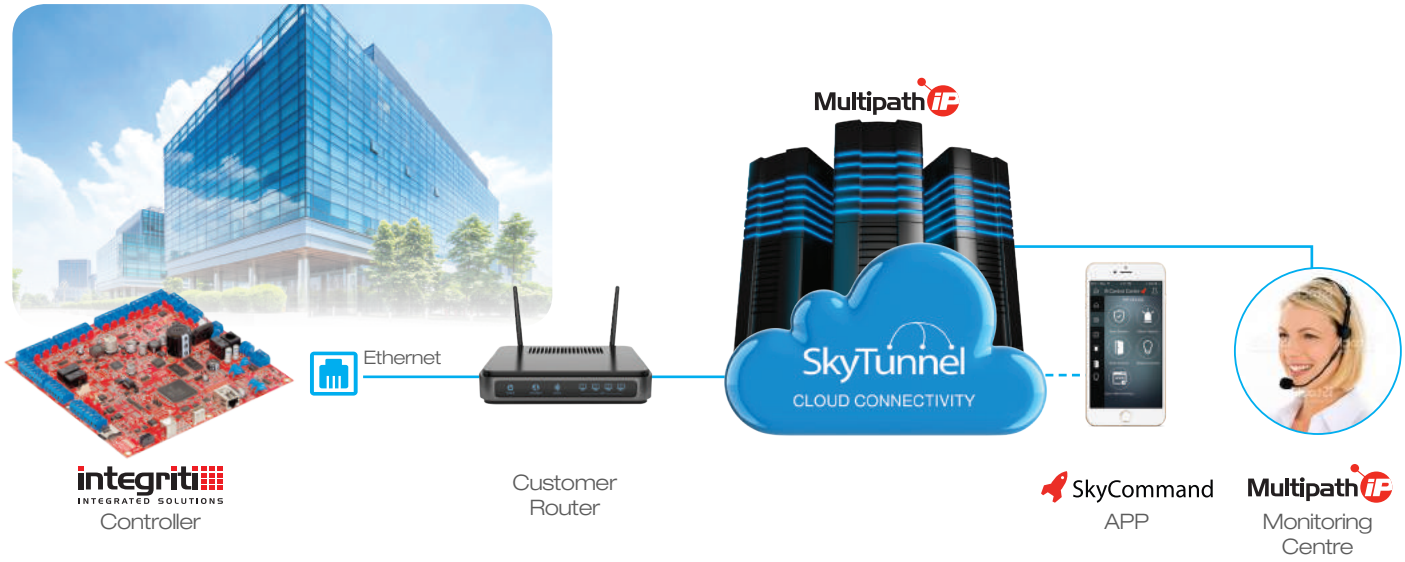
Multipath-IP is a state of the art multiple path IP alarm transmission system designed for low-cost monitoring through to high-security applications. Multipath-IP is a suite of products ranging from a variety of field hardware devices installed on the customer's premises to dedicated hardware systems installed within a monitoring station. The Multipath-IP service is available throughout Australia and New Zealand. The service will also be made available in additional regions in future.

Multipath-IP utilises leading edge internet protocol (IP) based technologies, combined with traditional alarm reporting systems to deliver critical alarm events to the monitoring centre via a secure, reliable and lightning-fast system.

High-security monitoring is achieved using a polled communication system where field hardware modules (STUs) communicate with the monitoring control room at intervals as frequent as every 10 secs. If these polls fail to be delivered within the allocated time, Multipath-IP is an agile solution which will attempt to re-establish the connection to the monitoring station using an alternative path and one of several alternative Telco providers. If a failed connection cannot be reestablished within a pre-determined time then an alarm is raised within the monitoring station.

Multipath-IP supports most existing alarm systems and is an ideal upgrade from traditional dial-up systems and the perfect replacement for outdated technologies such as direct line or Securitel. Installation of equipment into the customer's premises is a simple process with no ongoing programming required. Multipath-IP is independently certified to Australian Standard AS2201.5 class 5 which is the highest IP monitoring standard available.

SkyTunnel Reporting



T4000 Reporting

SkyCommand

Receive alarm notifications and control your alarm system like never before - anywhere at any time.

SkyCommand delivers alarm notifications and the freedom to control security areas, lights, heating/cooling and door access.

Multipath-IP

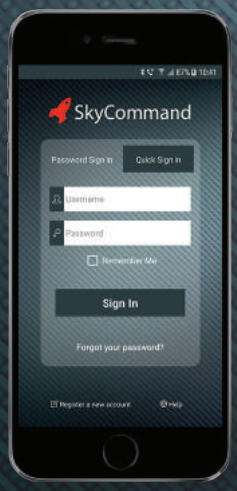
Features:

- Instant notifications for alarm events to your mobile phone*
- Arm and disarm your security system remotely
- Supports multiple sites and security areas
- Remotely turn on and off locks and appliances
- Create favorites lists for quick access to items
- Personalise items with images
- Notification and event history
- PIN or Biometric App entry and lock

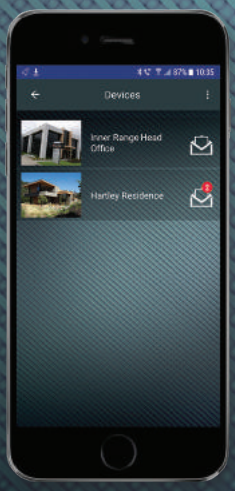
**Push Notification is a subscription service. Contact Inner Range for a SkyCommand Dealer form and pricing.*

Utilising T4000 high-level integration to an Integriti, Inception or Concept system, SkyCommand provides powerful control over door access, security and automation.

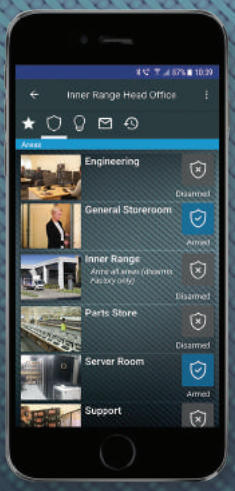
Third party alarms systems can also be controlled using the output on a T4000 via a key-switch input on any third party alarm panel.



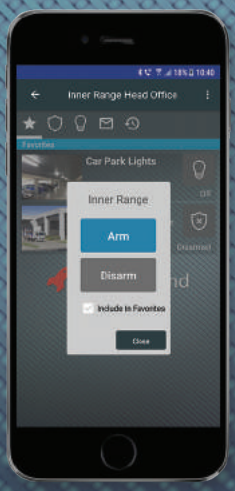
Easy Access



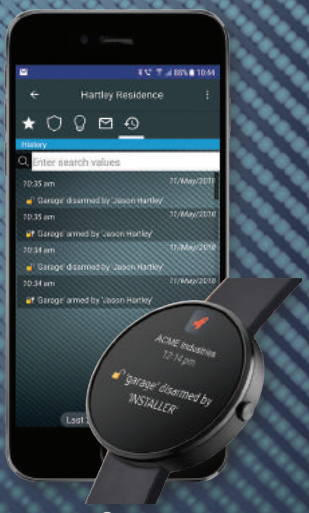
Multiple Sites



Multiple Areas



Simple Control



Notifications

Available now on:

ANDROID APP ON Google play

Available on the App Store

www.innerrange.com

inner range

Intelligent Security Solutions

Multipath iP
Intelligent Alarm Transmission Systems

DATA SHEET
T4000 Security Communicator

T4000 SECURITY COMMUNICATOR

The Multipath-IP T4000 is a highly advanced and cost-effective field device used to connect any Contact-ID dialer equipped alarm panel to a central monitoring station via multiple highly secure IP paths.

The versatile T4000 is packed with many industry-first features that make it the best tool in any Installer's toolbox. Its core strength focuses on ease of installation, ease of operation and low-cost security monitoring.

Along with all the features you have come to expect such as Dual 4G and Ethernet alarm transmission paths, The T4000 also brings modern capabilities to existing alarm systems such as smartphone apps and push notification service.*

Using its industry first "Router Functionality", the T4000 can even leverage Inner Range's SkyTunnel cloud-based infrastructure for seamless IP connectivity of Inner Range alarm systems.**

The T4000 also provides a communications path for upload/download programming of many popular alarm systems on the market when a PSTN line is not available at the installation site.

The T4000's small footprint allows it to retrofit easily into existing alarm system cabinets or be housed in its own security cabinet with a backup battery.

T4000 Lite

The Multipath-IP T4000 Lite features the same highly advanced feature set as the original T4000. The on-board battery charger and PSTN dial through functions are not fitted to the T4000 Lite, providing the perfect solution for the cost sensitive residential market in areas where the NBN is rolling out. With a smaller price tag, it is a great solution for installations where the T4000 Lite is being powered from an existing battery-backed alarm system.

** Push notification subscription required. ** Router data subscription required.*

Features

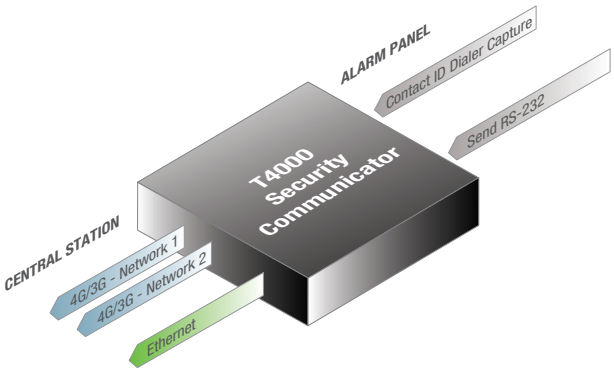
- Simple Plug and Play installation
- Ultra-fast 4G dual SIM polled communications paths
- 10/100 Mbps Ethernet port for high-speed polling
- Configurable bi-directional polling from 10 seconds to 5 minutes to meet the requirements of Australian Standard AS2201.5
- Secure 128Bit AES encrypted data transmission
- Over-the-air upload/download to compatible alarm systems using modem dial-up and serial pass-through methods
- Dialer Capture port to receive communications from any alarm panel equipped with a dialer and programmed to report Contact-ID
- High-level integration with Inner Range Integriti, Inception & Concept Systems
- Remote firmware update capability
- General purpose security input
- Relay output for control of external devices
- Remotely arm/disarm connected alarm system
- App that allows the end user to control their alarm system, i.e. arm/disarm, auxiliary control and automation. Available on Google Play and IOS stores web: https://skycommand.com.au
- Alarm reporting using Contact-ID and IRFast with text formats
- Compact and versatile form factor
- Easy to read functional LED status display
- 12-24VDC supply voltage
- Battery backup capability*** (Battery sold separately)

**** Not supported on T4000 Lite.*

Package Contents

- T4000 Security Communicator
- 3.5Dbi magnetic antenna - 2m cable
- Dual network SIM cards (Pre-Installed)
- Dialer Capture lead

Connectivity



* Not supported on Lite Model

inner range

Multipath iP
Intelligent Alarm Transmission Systems

DATA SHEET
T4000 Security Communicator

Specifications

Physical

Size:	101(L) x 98(W) x 35(D) (mm)
Weight:	190g
Mounting:	4 x M4 screws to chassis
Installation Environment:	0ºC - 50ºC @15% - 90% relative humidity (non-condensing)
Working Temperature Range:	-25ºC to +50ºC ambient unforced ventilation

Connections

Outputs:	1 Relay Output
Relay Contact Rating:	2Amp 30VDC
Inputs:	1 configurable (EOL or No-EOL)
Ethernet:	10/100 Mbps
PSTN (Phone):	RJ12 (Not fitted on Lite Model)
PABX (Panel):	RJ12 Contact-ID Dialer Capture
Serial:	RS-232, TTL

LED Indicators

Status Indicators:	Power/Battery
	Panel
	GSM Registration
	Host (Server Online)
	Alarms Buffered
	GSM Modem
	SIM1/2
	Ethernet Status (Link/Act)

Alarm Communications

Alarm Formats:	Contact ID, IRFast, IRFast + Text
Encryption:	128 bit AES

Upload / Download Data Pass-Through via IP (4G/3G/Ethernet)

Panel Connection:	Dial-up Modem, Serial RS232
Modem Modulation:	Bell 103, V21, V22

PSTN / PABX

PSTN Isolation Voltage:	1500v RMS
Max PABX line Voltage:	65V RMS
Max PABX Current:	30mA
PABX Output Level:	-10dBm
Max RF Power:	2 watts

Power Specifications

Input:	12-24VDC, 200mA nominal (18VDC 1 Amp recommended for Battery backup)
Fuse:	PTC protection + on-board fuse (non-replaceable)
Charger Supply Current @ 18 volts:	90mA (Idle) + 30mA (GSM Online) (Not supported on T4000 Lite)
Max Output Current:	500mA average
Typical Battery Backup Time:	72 hours (Not supported on T4000 Lite)
Minimum Battery Backup Time:	48 hours (Not supported on T4000 Lite)
Minimum Operating Voltage:	8 volts
Low Battery Sense Voltage (Typical):	11 volts

Battery Types

Recommended Battery:	12 Volt SLA (gel) type, 7 Amp-Hour (Not supported on T4000 Lite)

Compliance

Electrical:	
Environmental:	RoHS

For a full range of T4000 accessories see: InnerRange.com/T4000#Accessories

Ordering Options

T4000

INTG-9985304GEU - Europe

INTG-998530LT4G -Lite Model - Europe

998530NZ - New Zealand Network - Vodafone NZ/Spark NZ

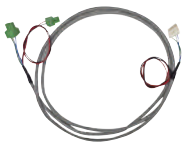
998530SPARK - New Zealand Network - Spark NZ

Accessories

999065
18VDC 1Amp plug pack power supply includes battery cables

995200XS
Extra Small Metal Enclosure

INTG-999028
Din Rail Clip Pack (2 Packs)



INTG-996795
Integriti/Concept Port Zero Interface Cable

INTG-996796
Integriti/Concept UART Interface cable

INTG-996797
Inception USB Interface cable

994093
6.5dBi Hi-Gain Antenna, 5m lead

994094
4.5dBi Hi-Gain Antenna, 10m lead

Multipath-IP

Multipath iP
Intelligent Alarm Transmission Systems

DATA SHEET

T4000X Expanded Security Communicator

In addition to all the standard T4000 features, the T4000X is equipped with an additional 8 inputs and 8 outputs.

The T4000X is ideal for simple monitoring and control applications as a 'stand-alone' 4G unit. Alternately the T4000X can be used to enhance an existing alarm panel, providing multiple area control from the SkyCommand mobile application. (via keyswitch wiring)

The T4000X inputs are self-aware and will detect the presence of a device and automatically enable reporting for the input. The inputs are also fully configurable from the SkyCommand dealer portal with sensible defaults that allow them to work straight 'out of the box'.

The built-in security area can be armed or disarmed from the SkyCommand app allowing simple end-user control.

Outputs can be configured to control a siren or strobe, creating a small 'stand-alone' alarm system. They can also be used to control key switch inputs on a 3rd party alarm panel. Each output has the flexibility to allow operation modes including on/off, toggle or timed control, ensuring that all different types of alarm system key switch control can be achieved.

Eight individual areas can be controlled from the SkyCommand app, end user feedback is provided to the app by intercepting the Contact-ID closing or opening signal generated by the alarm panel.

End users can receive push notifications to their smartphone from the T4000X if they have a current SkyCommand push notification subscription.

Features

- 8 zone inputs
- 8 outputs (open collector)
- Regulated 12 volt detector power supply
- Convenient installation options
- Controllable Arm/Disarm security area
- Fully configurable zone inputs (instant/24hour/EOL resistor)
- Programmable Siren/Strobe output function
- Remote firmware update
- Fully controllable from SkyCommand app
- Contact-ID, IRFast and optional text reporting

Ordering Options

INTG-998530X
T4000X 4G Expanded Security Communicator
(Due for release late 2018)

Specifications

Physical

Size:	103(L) x 99(W) x 48(D) (mm)
Weight:	250g
Mounting:	4 x M3 screws to chassis or hook and loop tape
Installation Environment:	0ºC - 50ºC @15% - 90% relative humidity (non-condensing)
Working Temperature Range:	-25ºC to +50ºC ambient unforced ventilation

T4000 Connections

Outputs:	1 Relay Output
Relay Contact Rating:	2Amp 30VDC
Inputs:	1 configurable (EOL or No-EOL)
Ethernet:	10/100 Mbps
PSTN (Phone):	RJ12
PABX (Panel):	RJ12 Contact-ID Dialer Capture
Serial:	RS-232, TTL

T4k Expander Board Connections

Outputs:	8 open-collector Output
Open-collector Rating:	100mA up to 24V
Inputs:	8 configurable zones (EOL or No-EOL)
Serial to T4000:	RS-232, TTL

LED Indicators

Status Indicators:	Power/Battery. Panel, GSM Registration
	Host (Server Online), Alarms Buffered
	GSM Modem, SIM1/2, Ethernet Status (Link/Act)

T4K Expander Board LED Indicators

Status Indicators:	Power, Comms

Alarm Communications

Alarm Formats:	Contact ID, IRFast, IRFast + Text
Encryption:	128 bit AES

Upload / Download Data Pass-Through via IP (4G/3G/Ethernet)

Panel Connection:	Dial-up Modem, Serial RS232
Modem Modulation:	Bell 103, V21, V22

PSTN / PABX

PSTN Isolation Voltage:	1500v RMS
Max PABX line Voltage:	65V RMS
Max PABX Current:	30mA
PABX Output Level:	-10dBm
Max RF Power:	2 watts

Power Specifications

Input: recommended for Battery backup)	12-24VDC, 220mA nominal (18VDC 1 Amp
Fuse:	PTC protection + on-board fuse (non-replaceable)
Charger Supply Current @ 18 volts:	110mA (Idle) + 30mA (GSM Online)
T4000 Max Output Current:	500mA
T4K Expander Max Output Current:	750mA
T4K Expander DET+ Voltage (typical):	13.8V (when supply is above 14V), 0V when supply is below 11V
Typical Battery Backup Time:	62 hours
Minimum Battery Backup Time:	32 hours
Minimum Operating Voltage:	8 volts
Low Battery Sense Voltage (Typical):	11 volts

Battery Types

Recommended Battery:	12 Volt SLA (gel) type, 7 Amp-Hour

Compliance

Electrical:	
Environmental:	RoHS

Power Supplies

Power Supplies

integriti
INTEGRATED SOLUTIONS

DATA SHEET

8Amp SMART Power Supply

The 8Amp 13.75VDC Smart Power Supply Unit (PSU) is a highly efficient power supply solution designed to meet the modern high spec requirements unique to access control and intruder systems. Monitoring of the power supply status is pivotal to the operation and performance of any security system, and the Integriti 8Amp Smart power supply delivers this very effectively.

When used with the Integriti system, the 8Amp Smart power supply offers Quick-Connect status monitoring of critical power-related aspects such as Battery Fault, Low Battery, Battery Not Present, Battery Failed Test, AC Supply Failure, Supply Low Volts, Power Supply Failure and status monitoring of all Smart Fuses. It also features general purpose AC Fail & Battery Fail alarm outputs and a separate Battery Charger output with Deep Discharge Protection.

The 8Amp Smart power supply features a highly reliable design that offers exceptional stability when used with the recommended battery type and is also suitable for providing power to card readers including Proximity type reader heads.

The Integriti 8Amp Smart power supply is designed primarily for use as a battery-backed supply for Integriti modules supporting the Quick-Connect "External Power" bus connection. This includes the Standard LAN Access Module (SLAM), the Integriti Intelligent LAN Access Module (ILAM), the Integriti 8 Zone LAN Expander and the Integriti Access Controller (IAC).

When used with these modules, the power supply and battery status may be monitored and reported via dedicated System Inputs on the Host Module, with no need to physically wire inputs for power supply monitoring.

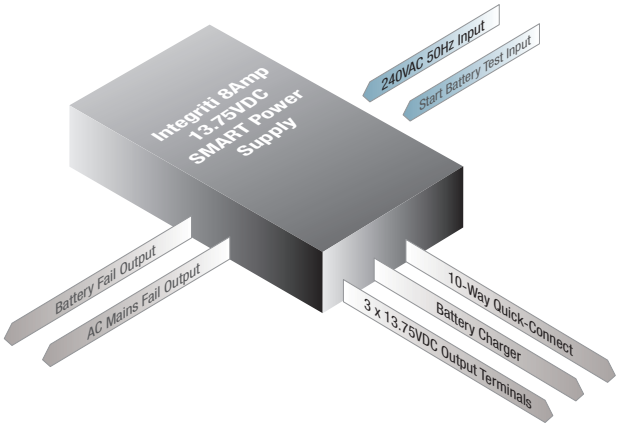
The Integriti 8Amp Smart power supply can also be used as a general purpose, battery-backed supply to power legacy or 3rd party equipment via the plug-on screw terminals.

SMART Features

The Integriti 8Amp SMART power supply is designed primarily for use as a battery backed supply for Integriti modules supporting the 10-way Quick-Connect "External Power" bus connection, these modules include:

- The Integriti Standard LAN Access Module (SLAM)
- The Integriti Intelligent LAN Access Module (ILAM)
- The Integriti 8 Zone LAN Expander
- The Integriti Access Controller (IAC)
- High-level monitoring of PSU status (with the above Integriti modules):
  - Battery Fault, Low Battery and Battery Not Present
  - Battery Failed Test
  - AC Supply Failure
  - Supply Low Volts
  - Power Supply Failure
  - LAN+ Smart Fuse Tripped
  - Detector+ Smart Fuse Tripped
- Dynamic battery testing
- Deep Discharge Battery protection
- Battery reverse polarity protection
- Quick-Connect PSU interface for Integriti modules
- Fully overload protected
- Smart Fuse protection
- Intelligent load sharing
- LED status indicators
- Universal low-level status outputs - AC Fail & Battery Fail
- Separate battery charger output
- Constant current limiting on battery charger output
- 3 x heavy duty DC output connections
- 240VAC IEC mains cable input

Connectivity



DATA SHEET

8Amp SMART Power Supply

Specifications

Physical

Size:	274(L) x 100W) x 64(D) (mm)
Weight:	1.1 kg (PSU Only)
Mounting:	4 x M4 screws to chassis
Installation Environment:	0ºC - 50ºC @15% - 90% relative humidity (non-condensing)
Working Temperature Range:	-25ºC to +50ºC ambient unforced ventilation

High-Level PSU Status Monitoring

(Available when connected to Integriti LAN modules via 10-way Quick-Connect cable)

Status Alarms:	AC Failure, Power Supply Low Volts, Battery Fault, Battery Low, Battery Not Present, Power Supply Failure, LAN+ Smart Fuse Tripped, Detector+ Smart Fuse Tripped, Battery Failed Test, Trigger Battery Test

Battery Alarm Thresholds

Low Battery Alarm:	11.0VDC
Deep Discharge Protection:	10.4VDC
Recovery From Deep Discharge:	12.2VDC

Connections

Outputs:	10-way Quick-Connect socket for Integriti modules
	3 x common 13.75VDC +/- Smart Fused heavy duty outputs, suits up to 14 gauge cable
	Battery charger connection (for 12V lead acid battery)
	Low-level AC Failure output (open collector output)
	Low-level Battery Fail output (open collector output)
	External Earth terminal for connection to enclosure
Inputs:	Start Battery Test Input Trigger (zero volt dry contact input)
	IEC type mains power input socket

LED Indicators

Status Indicators:	AC OK
	Battery Charging
Fault Indicators:	Battery Fault
	Fault on V+ Connection
	Fault on Quick-Connect PSU Connection

Power Specifications

Input:	240VAC, 50Hz, 1.1Amp
Mains Fuse:	2.0A (T)
Output Voltage:	13.75VDC
Max Output Current:	6.5Amp constant + 1.5Amp charger
	8.0Amp without charger (intelligent load sharing)
	10.0Amp short term with battery support
Load Regulation:	< 2.5% @ load 0-9 Amp
Output Ripple:	< 100mVRMS @ full load
Battery Charging:	CC/CV

Battery Types

Recommended Battery:	1 or 2, 18Ah 12V Sealed Lead Acid Only

Safety Standards

	AS/NZS 3820, Essential Safety Requirements for Electrical Equipment AS/NZS 60950.1:2011 Information Technology Equipment
	Safety AS/NZS CISPR 22:2009 Information Technology Equipment
	Radio Disturbance Characteristic
	Limits and methods of measurement. Class A, Class B with snap-on ferrite placed on the mains cable (Wurth 742 717 33)

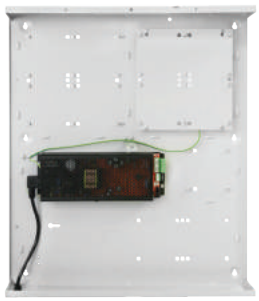
Compliance

Electrical:	
Environmental:	RoHS

Ordering Options

INTG-996092EU

Integriti 8Amp 13.75VDC SMART Power Supply Module, PSU only



INTG-995204PEEU8

WideBody Key Lockable Enclosure fitted with 8Amp 13.75VDC SMART Power Supply

INTG-995201PEEU8

Medium Enclosure fitted with 8Amp 13.75VDC SMART Power Supply

INTG-995203PEEU8

Xlarge Enclosure fitted with 8Amp 13.75VDC SMART Power Supply

INTG-995220PEEU8

Rack Mount Enclosure fitted with 8Amp 13.75VDC SMART Power Supply

Power Supply Cables

INTG-996792

Integriti PSU patch lead, 430mm 10way to 10way header (Supports SMART PSU status monitoring with Integriti modules and Integriti 3 & 8Amp SMART PSU's)

INTG-996794

Integriti PSU patch lead, 500mm 10way to Red&Black flying leads
(Does not support SMART PSU status monitoring with Integriti modules)

DATA SHEET

3Amp SMART Power Supply

The 3Amp 13.75VDC SMART power supply is a universal power supply which can be used wherever battery backed 12V supplies are required.

When used with the Inner Range Integriti system, the 3Amp SMART power supply offers Quick-Connect status monitoring of critical power-related events such as Battery Fault, Low Battery, Battery Not Present, Battery Failed Test, AC Supply Failure, Supply Low Volts, Power Supply Failure and status monitoring of self-resetting, processor controlled Smart Fuses. It also features general purpose AC Fail & Battery Fail alarm outputs and a separate Battery Charger output with Deep Discharge Protection.

The 3Amp power supply boasts a highly reliable design that delivers exceptional stability when used with the recommended battery type and is also suitable for providing power to card readers including Proximity type reader heads.

General Purpose Use

The Integriti 3Amp power supply can also be used as a general purpose, battery-backed, 13.75VDC supply to power legacy or 3rd party equipment via the plug-on screw terminals. It is extensively used to power Integriti or Concept modules, detectors, readers and auxiliary devices such as strobes, sounders and locks.

Features

- High-level monitoring of PSU status (with Integriti modules)
- Quick-Connect PSU interface (for Integriti modules)
- Separate battery charger output
- Deep Discharge Battery protection
- Battery reverse polarity protection
- Smart Fuse protection
- Universal low-level status outputs - AC Fail and Battery Fail
- Low-level Trigger Battery Test input
- Separate LAN+ & DET+ DC output connections (screw terminals)
- 16VAC input (a 4Amp transformer is required)

SMART Features

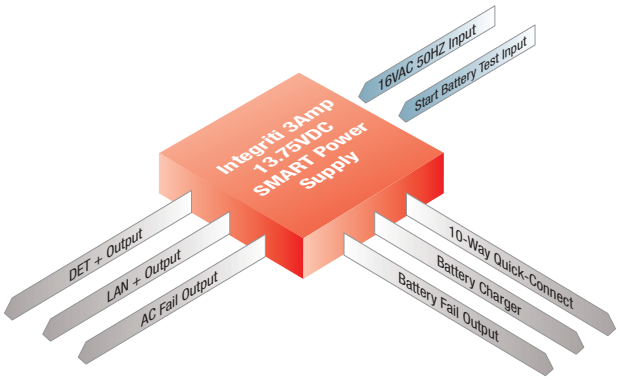
The Integriti 3Amp SMART power supply is designed primarily for use as a battery backed supply for Integriti modules supporting the 10-way Quick-Connect "External Power" bus connection, these modules include:

- The Integriti Standard LAN Access Module (SLAM)
- The Integriti Intelligent LAN Access Module (ILAM)
- The Integriti 8 Zone LAN Expander
- The Integriti Access Controller (IAC)

When used with these modules the 3Amp PSU offers Plug&Play Quick-Connect high-level status monitoring of critical power-related events such as:

- Battery Fault
- Low Battery
- Battery Not Present
- Battery Failed Test
- AC Supply Failure
- Supply Low Volts
- Power Supply Failure
- Status monitoring of self-resetting, processor controlled Smart Fuses

Connectivity



DATA SHEET

3Amp SMART Power Supply

Specifications

Physical

Size:	95(L) x 95(W) x 45(D) (mm)
Mounting:	4 x M3 screws to Inner Range chassis clips
Installation Environment:	0ºC - 50ºC @15% - 90% relative humidity (non-condensing)
Working Temperature Range:	-25ºC to +50ºC ambient unforced ventilation

High-Level PSU Status Monitoring

(Available when connected to Integriti LAN modules via 10-way Quick-Connect cable)

Status Alarms:	AC Failure, Power Supply Low Volts, Battery Fault, Battery Low, Battery Not Present, Power Supply Failure, LAN+ Smart Fuse Tripped, Detector+ Smart Fuse Tripped, Battery Failed Test, Trigger Battery Test

Battery Alarm Thresholds

Low Battery Alarm:	11.0VDC
Deep Discharge Protection:	10.4VDC
Recovery From Deep Discharge:	12.2VDC

Connections

Outputs:	10-way Quick-Connect socket for Integriti modules
	1 x DET +/- 13.75VDC & 1 x LAN +/- 13.75VDC
	Battery charger connection (for 12V lead acid battery)
	Low-level AC Failure output (open collector output)
	Low-level Battery Fail output (open collector output)
	External Earth terminal for connection to enclosure
Inputs:	Start Battery Test Input Trigger (zero volt dry contact input)

LED Indicators

Status Indicators:	AC OK
	Battery Charging
Fault Indicators:	Battery Fault
	Fault on DET+ Connection
	Fault on LAN + Connection

Power Specifications

Input Voltage:	16VAC, 50hz
Input Current:	3Amp with 4Amp transformer fitted and LK1 jumper fitted
	1.5Amp with 1.5Amp plug-pack fitted and LK1 jumper removed
Output Voltage:	13.75VDC +/-5%, up to 3Amp. (battery fully charged)
Max Output Current:	3Amp with LK1 fitted
	1Amp with LK1 removed
Switching Frequency:	370 kHz. approx.
Load Regulation:	+0 / -500mV @ I out = 0.1A to 3.0A
Conversion Efficiency:	85%. approx
Output Ripple:	< 100mVRMS @ full load

Battery Types

Recommended Battery:	1 x 7Ah, 9Ah or 18Ah 12V Sealed Lead Acid Only

Compliance

Electrical:	CE
Environmental:	RoHS

Ordering Options

INTG-996091PCB&K

Integriti 3Amp 13.75VDC SMART Power Supply PCB & accessories

INTG-995200PEEU3

Integriti Small Enclosure fitted with 3Amp 13.75VDC SMART Power Supply and 4Amp mains transformer

INTG-995201PEEU3

Integriti Medium Enclosure fitted with 3Amp 13.75VDC SMART Power Supply and 4Amp mains transformer

INTG-995203PEEU3

Integriti Xlarge Enclosure fitted with 3Amp 13.75VDC SMART Power Supply and 4Amp mains transformer

INTG-995204PEEU3

WideBody Enclosure fitted with 3Amp 13.75VDC SMART Power Supply and 4Amp mains transformer

INTG-995220PEEU3

Rack Drawer fitted with 3Amp 13.75VDC SMART Power Supply and 4Amp mains transformer

Power Supply Cables

INTG-996792

Integriti PSU patch lead, 430mm 10way to 10way header (Supports SMART PSU status monitoring with Integriti modules and Integriti 3 & 8Amp SMART PSU's)

INTG-996794

Integriti PSU patch lead, 500mm 10way to Red&Black flying leads
(Does not support SMART PSU status monitoring with Integriti modules)

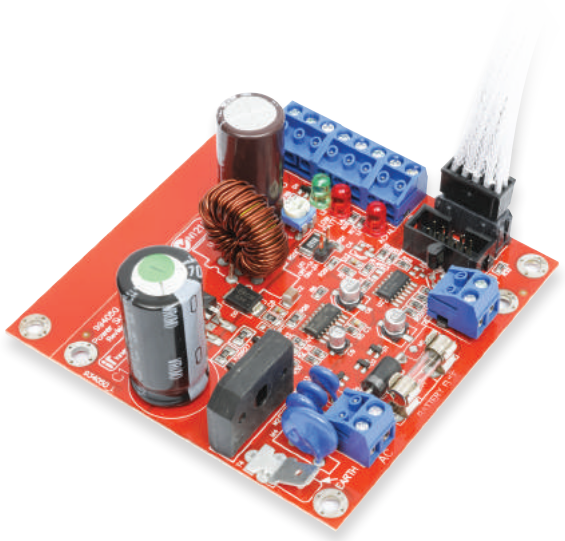
DATA SHEET

2Amp Standard Power Supply

The Standard 2Amp 13.75VDC power supply is a universal power supply which can be used wherever battery backed 12V supplies are required. The Standard 2Amp power supply boasts a highly reliable design that offers exceptional stability when used with the recommended battery type and is also suitable for providing power to card readers including Proximity type reader heads. The Standard 2Amp power supply is factory fitted in Small Integriti and Concept equipment enclosures, or supplied as a PCB module.

General Purpose Use

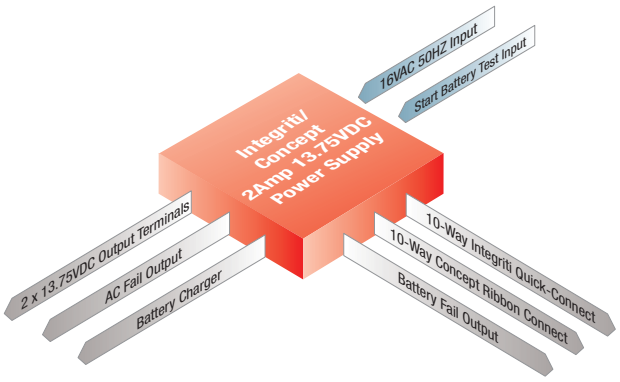
The Standard 2Amp power supply can also be used as a general purpose, battery-backed, 13.75VDC supply to power legacy or 3rd party equipment via the plug-on screw terminals. It is extensively used to power Integriti or Concept modules, detectors, readers and auxiliary devices such as strobes, sounders and locks.



Features

- 10-way Quick-Connect output for Integriti modules such as the Standard LAN Access Module (SLAM), Intelligent LAN Access Module (ILAM) and 8 Zone LAN Expander
- Ribbon cable output for Concept Modules, such as the Mini Expander, and the 2 Door Access module
- Separate DC output connections (screw terminals)
- Low-level AC Fail alarm output with built-in 2K2/2K2 EOL resistors
- Low-level Battery Fail alarm output with built-in 2K2/2K2 EOL resistors
- Low-level Trigger Battery Test input
- Small form factor
- Fused battery protection (4Amp)
- LED indication of Output Present, AC Fail and Low Battery
- Can be linked with a second 2Amp power supply to provide a 4Amp or dual-redundant power source
- Can be set to a 1Amp current limit
- 16VAC input (a 3Amp transformer is required)

Connectivity



DATA SHEET

2Amp Standard Power Supply

Specifications

Physical

Size:	95(L) x 95(W) x 45(D) (mm)
Mounting:	4 x M3 screws to Inner Range chassis clips
Installation Environment:	0ºC - 50ºC @15% - 90% relative humidity (non-condensing)
Working Temperature Range:	-25ºC to +50ºC ambient unforced ventilation

Battery Alarm Thresholds

Low Battery Alarm:	11.0VDC
Deep Discharge Protection:	10.4VDC
Recovery From Deep Discharge:	12.2VDC

Connections

Outputs:	10-way Quick-Connect socket for Integriti modules
	10-way ribbon cable socket for Concept modules
	2 x common 13.75VDC +/- outputs
	Battery charger connection (for 12V lead acid battery)
	Low-level AC Failure output (open collector output with built-in 2K2/2K2 EOL resistors)
	Low-level Battery Fail output (open collector output with built-in 2K2/2K2 EOL resistors)
	Low-level Battery Fail output (open collector output)
	External Earth terminal for connection to enclosure
Inputs:	Start Battery Test Input Trigger (zero volt dry contact input)

LED Indicators

Status Indicators:	Output ON
Fault Indicators:	Battery Low
	AC Fail

Power Specifications

Input Voltage:	16VAC, 50hz
Input Current:	2Amp with 3Amp transformer fitted and LK1 jumper fitted
	1.5Amp with 1.5Amp plug-pack fitted and LK1 jumper removed
Output Voltage:	13.75VDC +/-5%, up to 2Amp. (battery fully charged)
Max Output Current:	2Amp with LK1 fitted
	1Amp with LK1 removed
Switching Frequency:	370 kHz. approx.
Load Regulation:	+0 / -500mV @ Iout = 0.1A to 2.0A
Conversion Efficiency:	85%. approx.
Output Ripple:	100mV RMS max. @ Iout = 2A

Battery Types

Recommended Battery:	1 x 7Ah, 9Ah or 18Ah 12V Sealed Lead Acid Only

Compliance

Electrical:	CE
Environmental:	RoHS

Ordering Options

INTG-996090PCB&K

Integriti Standard 2Amp 13.75VDC Power Supply Module, PSU only

INTG-995200PEEU2

Integriti/Concept Small Enclosure fitted with Standard 2Amp 13.75VDC Power Supply and 3Amp mains transformer

INTG-995201PEEU2
Medium Enclosure with 2Amp PSU

INTG-995203PEEU2
Xlarge Enclosure with 2Amp PSU

INTG-995220PEEU2
Rack Drawer with 2Amp PSU

Power Supply Cables

INTG-996792

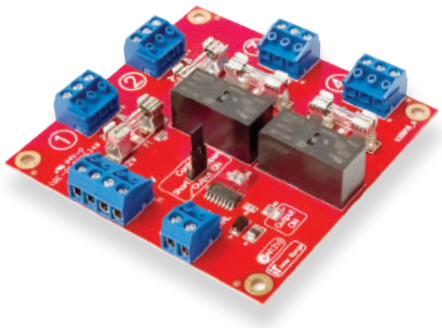
Integriti PSU patch lead, 430mm 10way to 10way header (Supports SMART PSU status monitoring with Integriti modules and Integriti 3 & 8Amp SMART PSU's)

INTG-996794

Integriti PSU patch lead, 500mm 10way to Red&Black flying leads
(Does not support SMART PSU status monitoring with Integriti modules)

Fire Door Release Relay - DC Power HUB

The 4-way Fire Door Release Relay / Switched DC Power Hub is a universal 1-in-4-out power distribution and switching hub, specifically designed for distribution and switching of DC power to electronic door locking devices. It offers a single input for connection to a DC power supply and 4 universal fused outputs with each output offering both "Always On" and "Switched" connections. This allows other control systems such as fire alarm panels to disconnect power to locks etc. under certain conditions to provide free access at access controlled Doors. The control sense input can be configured for normally closed/normally open contacts or constant 12V/24VDC outputs from the external control or fire alarm system.



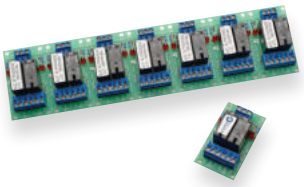
Ordering Options

995916 Fire Door Release Relay / Switched DC Power Hub

Passive Relay Cards

2 x10 Amp Relay Card (Connected Strip of 8)

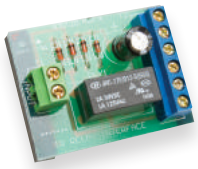
The 2 x 10Amp x 8 Relay Board provides low voltage, high current relay outputs, offering a general purpose switching interface. The Relay Card is supplied as a strip of 8 boards with a common DC supply connection that can be used complete with all 16 relays or broken down to the required size. The relays can be switched by any open collector auxiliary output capable of switching up to 50mA.



995083M

1Amp DPDT Relay Card

The 1 Amp Double-Pole, Double-Throw Relay Card provides low voltage relay outputs offering a general purpose switched interface. A single relay is provided with connections for two independent sets of contacts. The relays can be switched by any open collector auxiliary output capable of switching a minimum of 20mA.



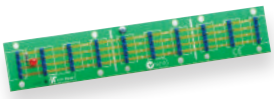
995085

Ordering Options

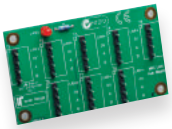
995083M 2 x10Amp x 8 Relay Card
995085 1Amp DPDT Relay Card

LAN Hubs & Power +/- Hub

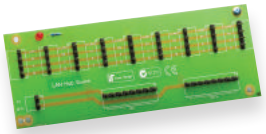
Four types of passive LAN HUBs are available for the distribution of Integriti or Concept RS- 485 networks and detector +/- power. The 995911 provides a single 10 way HUB or can be broken into 3 to provide 2 x 3 way sections and 1 x 4 way. The 995915 provides a single compact 8 way HUB. The 995910 provides a single 9 way HUB with additional terminals for detector positive and zero volt connections. The 995914 provides a single 32 way HUB for detector positive and zero volt connections. All HUBs include an LED power indicator and are supplied complete with terminal blocks and mounting posts/self-adhesive mounts.



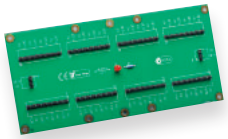
995911



995915



995910



995914

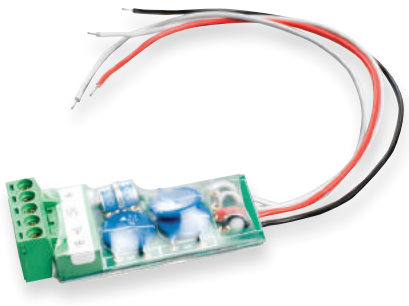
Ordering Options

995911 LAN Hub board (Breakaway Version)
995915 Mini LAN Hub board 8 Way
995910 LAN Hub board 9 Way (With DET+ & 0V)
995914 DET Power LAN Hub board (32 Way DET+ & 0V)

Surge Diverters

Where Integriti or Concept hardware is installed in locations and environments where a very high level of transient electrical activity might be anticipated, the addition of Inner Range Advanced Surge Protection Devices adds a further layer of transient protection.

There are three unique Inner Range Advanced Surge Protection Devices with each device purpose built to provide additional protection in line with the most vulnerable components of the system circuitry: The phone line, the power supply and the Controller RS-485 LAN.



Ordering Options

995040 Low Voltage AC and Battery Surge Diverter
995041 Inner Range RS-485 LAN Surge Diverter
995042 PSTN (Telecom) Line Surge Diverter

Enclosures

integriti
INTEGRATED SOLUTIONS

integriti

DATA SHEET

Extra Small

The Extra Small Enclosure (XS) is fabricated in the same robust style as the Small, Medium & Extra Large Low Profile Enclosures. The Extra Small Enclosure uses the same mounting plate as the current 995200 series of Small Enclosure and is designed to house Inner Range LAN modules that are either powered via the LAN or an external plug pack or 3rd party power supply.

The Extra Small Enclosure is a versatile enclosure that will house a range of small size PCB's, and also provides an antenna mounting solution for wireless products such as Multipath-IP STU or FE3000 GSM modules.

Specifications

Physical

Enclosure Size	252(L) x 263(W) x 85(D)
Cable Entry Points	
Top	4 x 25mm Round Conduit Punch-outs
	1 x Power Entry/Antenna Mount Point
Base	2 x 25mm Round Conduit Punch-outs
	1 x Power Entry

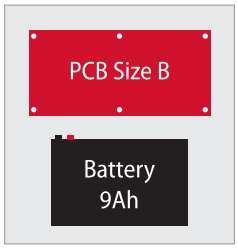
Ordering Options

995200XS Extra Small Enclosure (Enclosure Only)

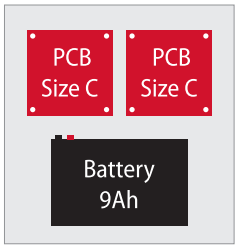
Scan here for more layout examples:

Layout Options

Example 1



Example 2



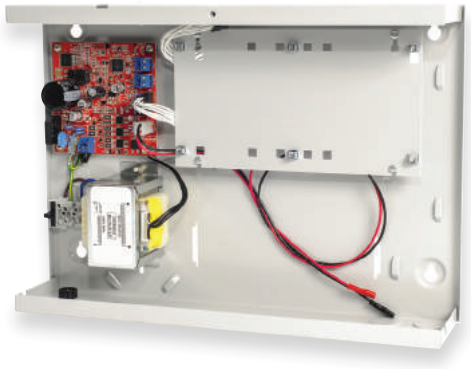
DATA SHEET

Small Enclosure

The Small Enclosure (S) is a universal sturdy metal enclosure designed for general purpose installation of small size Inner Range Integriti, Inception or Concept equipment. The design allows for a range of Integriti, Inception or Concept Module PCB's to be fitted. In addition to the Power Supply PCB, 1 x "B" size or 2 x "C" size PCB's may be fitted per enclosure.

A range of powered or non-powered versions are available.

The Small Enclosure's low profile side elevation protrudes less than 90mm from the mounting surface.



Specifications

Physical

Enclosure Size	252(L) x 358(W) x 85(D)

Cable Entry Points

Top	4 x 25mm Round Conduit Punch-outs
	1 x Power Entry/Antenna Mount Point
Base	2 x 25mm Round Conduit Punch-outs
	1 x Power Entry
Back	Through wall cable entry behind main plate
Powered Versions: 2/3Amp	See the Integriti 2/3 Amp PSU Datasheets for PSU Specifications

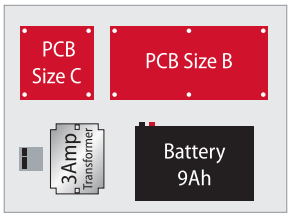
Ordering Options

INTG-995200PEEU2 Small Enclosure Powered with 2Amp PSU (Europe)
INTG-995200PEEU3 Small Enclosure Powered with 3Amp SMART PSU (Europe)
995200 Small Enclosure - (Empty Enclosure)

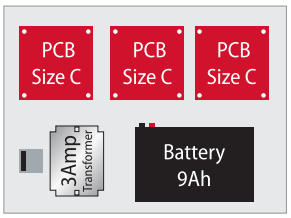
Scan here for more layout examples:

Layout Options

Example 1



Example 2



DATA SHEET

Medium Enclosure

The Integriti Medium Enclosure (M) is a sturdy metal enclosure designed for general purpose installation of Integriti or Inception Controllers, UniBus devices, LAN modules and is backwards compatible with some Concept modules. The flexible design allows for a range of Integriti / Inception equipment to be fitted in various custom configurations to meet many installation requirements.

The Medium Enclosure's low profile side elevation protrudes less than 90mm from the mounting surface.

Features

- Robust metal enclosure
- Designed for universal installation requirements
- Version to suite Integriti & Inception Controllers and Modules
- Mounting options for 18Ah or 9Ah Lead Acid Batteries
- Low Profile design Size 460(L) x 358(W) x 85(D)
- Suitable for Integriti/Inception (or Concept) medium size equipment mounting plates
- Designed to house Integriti PCB's
- Integriti/Inception Controllers
- Integriti LAN Modules
- UniBus Expansion Devices
- Compatible with some Concept PCB's

Specifications

Physical

Enclosure Size	460(L) x 358(W) x 85(D)

Cable Entry Points

Top	3 x 25mm Round Conduit Punch-outs
	1 x 25x50mm Punch-out
	1 x 50x50mm Punch-out
	1 x Power entry
Base	2 x 25mm Round Conduit Punch-outs
	1 x Power Entry
	1 x DB9 Chassis Mount Point
Back	Through wall cable entry behind main plate
Powered Versions: 2/3/8Amp	See the Integriti 2/3/8Amp PSU Datasheets for PSU Specifications

Ordering Options

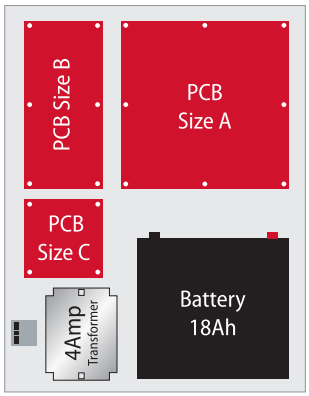
INTG-995201PEEU8 Medium Enclosure powered with SMART 8Amp PSU (Europe)*
INTG-995201PEEU3 Medium Enclosure powered with SMART 3Amp PSU (Europe)
INTG-995201PEEU2 Medium Enclosure powered with 2Amp PSU (Europe)
INTG-995201I Medium Enclosure only - (Empty Enclosure suit Integriti)

*Product not available in EU at time of printing
The products listed above are Integriti/Inception versions and are not compatible with some Concept PCB's

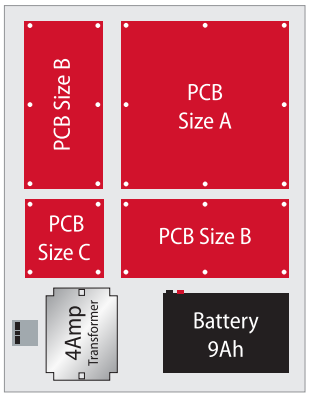
Scan here for more layout examples:

Layout Options

Example 1



Example 2



DATA SHEET

Extra Large Enclosure

The Extra Large Enclosure (XL) is a universal sturdy metal enclosure designed for general purpose installation of either Inner Range Integriti or Concept equipment. The flexible design allows for the complete range of Integriti or Concept equipment to be fitted in various custom configurations to meet almost any installation requirement.

A range of powered or non-powered models are available.

The Extra Large Enclosure's low profile side elevation protrudes less than 90mm from the mounting surface.

Features

- Robust metal enclosure
- Designed for universal installation requirements
- Suitable for Integriti Controllers and Modules
- Suitable for Concept Controllers and Modules
- Mounting options for 18Ah or 9Ah Lead Acid Batteries
- Optional battery holder brackets are available
- Low profile design - size 702(L) x 358(W) x 85(D)
- Suitable for Integriti or Concept medium or large size equipment mounting plates

Designed for a range of Integriti or Concept Products

- Integriti Controllers (IAC or ISC)
- Integriti LAN Modules
- Integriti UniBus Expansion Devices
- Concept Controllers
- Concept LAN Modules
- Concept Peripheral Devices

Specifications

Physical

Enclosure Size	702(L) x 358(W) x 85(D)

Cable Entry Points

Top	2 x 25mm Round Conduit Punch-outs
	1 x 25x50mm Punch-out
	1 x 50x50mm Punch-out (with 25mm round inset)
	1 x Power Entry
Base	1 x 50x50mm Punch-out (with 25mm round inset)
	1 x Power Entry
	1 x 25x50 IEC lead entry point (Entry plate required)
Back	Through wall cable entry behind main plate
Powered Versions: 2/3/8Amp	See the Integriti 2/3/8Amp PSU Datasheets for PSU Specifications

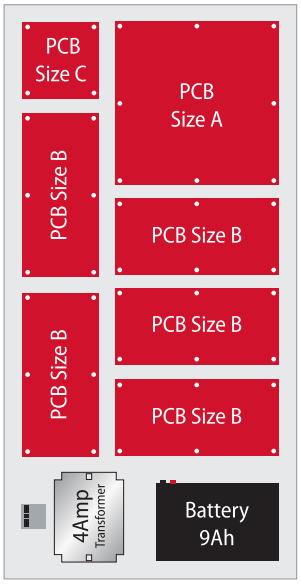
Ordering Options

INTG-995203PEEU8 Extra Large Enclosure powered with SMART 8Amp PSU (Europe)*
INTG-995203PEEU3 Extra Large Enclosure powered with SMART 3Amp PSU (Europe)
INTG-995203PEEU2 Extra Large Enclosure powered with 2Amp PSU (Europe)
995203 Extra Large Enclosure (Enclosure Only)
*Product not available in EU at time of printing

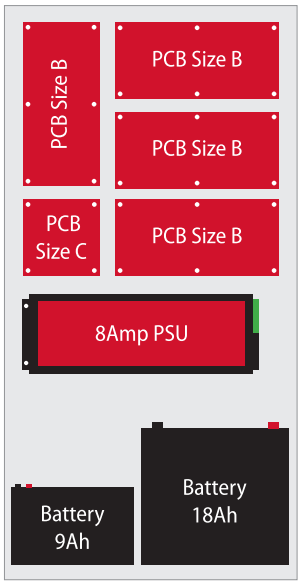
Scan here for more layout examples:

Layout Options

Example 1



Example 2



Enclosures

DATA SHEET

WideBody Enclosure

The WideBody Enclosure (WB) is a key lockable sturdy metal enclosure designed for installation of Integriti Access Control solutions where all the Integriti equipment, 3 or 8Amp power supply and backup batteries can be contained within a single tamper monitored enclosure.

The enclosure will house all the equipment required for as many as 8 doors. Multiple enclosures can be installed throughout a building of any size to provide Access Control for the entire facility while keeping the total quantity of installed enclosures to a minimum.

The WideBody design provides very efficient use of wall mounting space, while it's low profile side elevation protrudes less than 100mm from the mounting surface.

Designed to suit a range of Integriti Products

- Integriti Access Controller (IAC)
- Intelligent LAN Access Module (ILAM)
- Integriti LAN Zone Expanders
- 3 or 8Amp SMART Power Supply
- UniBus Expansion Devices
- Concept peripheral Devices

Features

- Key Lockable robust metal enclosure
- Designed for Access Control installations
- Houses all equipment required for up to 8 doors
- Space for 2 x 18Ah Lead Acid Batteries
- Low Profile design Size 595(L) x 512(W) x 95(D)
- 3 x 50x50mm conduit entry points
- 7 x 25mm round conduit entry points
- Discrete thru-wall cable entry via back panel
- Provision for dual front/rear tamper monitoring
- Includes Integriti equipment mounting plate
- Hinged Expansion Plate available (Part 999027)

Specifications

Physical

Enclosure Size	595(L) x 512(W) x 95(D)

Cable Entry Points

Top	4 x 25mm Round Conduit Punch-outs
	2 x 50x50mm Punch-out (with 25mm round inset)
Base	1 x 50x50mm Punch-out (with 25mm round inset)
	1 x Power Entry
	1 x 25x50 IEC lead entry point (Entry plate included)
Back	Through wall cable entry behind main plate
Power Supply	
Powered Versions: 3/8Amp - See the Integriti 3/8Amp PSU Datasheets for PSU Specifications	

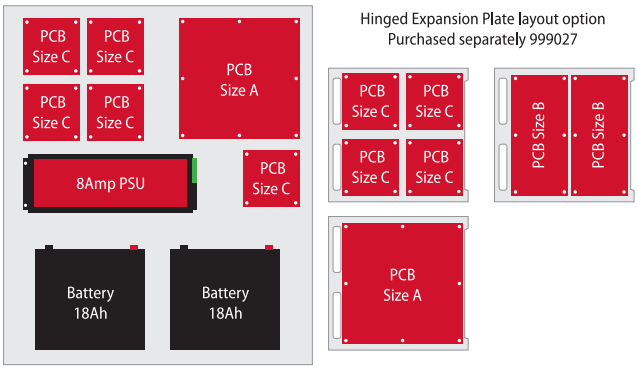
Ordering Options

INTG-995204PEEU8 WideBody Enclosure powered with SMART 8Amp PSU (Europe)*
INTG-995204PEEU3 WideBody Enclosure powered with SMART 3Amp PSU (Europe)
INTG-995204 WideBody Enclosure (Enclosure Only)
INTG-999027 2nd tier hinged expansion plate for WideBody Enclosure
*Product not available in EU at time of printing

Scan here for more layout examples:

Layout Options

Example 1



integriti

DATA SHEET

Rack-Mount Enclosure

The Inner Range Rack Mount Drawer provides a high-security tamper monitored 2RU rack mounting solution for Integriti system hardware.

It features a truly universal design that allows virtually all Inner Range system Controllers and LAN modules to be installed into a 19" rack equipment cabinet without restricting critical access to cabling, termination of connections or access for commissioning and maintenance purposes.

The Rack Mount Drawer is capable of housing up to two separate internal power supplies with two separate internal 12V, 9Ah sealed lead acid back-up batteries.

Cabling to the drawer is managed via a rear mounted cable tie-down tray with a selection of "knockout" style cable entry points. The mains power connection is via an industry standard IEC connector and the Ethernet network connection is made via a panel mounted RJ45 socket. All other cabling is routed and securely terminated inside the tamper monitored enclosure.

Servicing is made easy as the entire drawer slides out of the rack providing full installation and service access to all components - without taking the system offline.

Scan here for more layout examples:

Features

Drawer Features

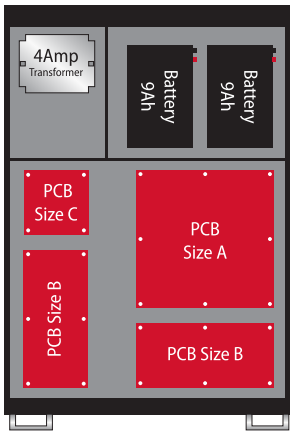
- 2RU Sliding 19" Rack Mountable Drawer
- Universal PCB Mounting Plate and Battery Holders
- Sturdy metal drawer with sealed base and welded corners
- Tamper monitored ventilated metal cover
- Rear Cable Tie Down Tray
- Supplied with ball bearing runners to suit front - rear mounting rail spacing of 520 to 740mm - adjustable

Rear Panel Connections and Cable Entry Routing

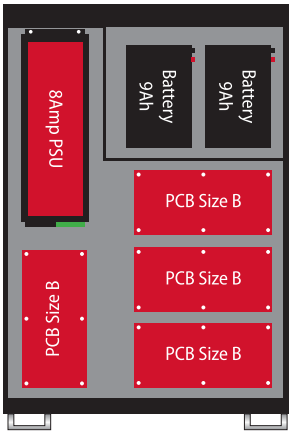
- 3 x 2-Way Circular Cable Entry Knockouts, 35mm or 64mm - Supplied with cable entry bushing
- Ethernet Connection - RJ45 Chassis Mount
- Mains Power Connection - IEC 240Vac Mains power connector - Fused
- Assisted Ventilation - Provision for 60mm panel mount fan

Layout Options

Example 1



Example 2



Specifications

Electrical Specification (3Amp Powered Version Only)

Mains Input:	240V AC, 50Hz
Power Supply Input:	16V AC @ 3A. (From Transformer provided)
Output Voltage:	13.8VDC +/-2%
Maximum Output Current:	3 Amps.
Output Ripple:	<100mV RMS max. @ full load.
Conversion Efficiency:	85%. approx.
Load Regulation:	+/- 500mV @ Iout = 0.1A to 3.0A.

See separate PSU datasheets for specifications of 2Amp & 8 Amp models

Mechanical Specifications

Dimensions:	675mm including cable tray and front handles (cable tray 80mm, handles 35mm, drawer 560mm)
	Width: 420 mm. Height: 85 mm
Rear Cable Tray:	80mm x 420mm
Rack Mount:	Suit 19" Rack with front and back rail mounts
Runners:	Adjustable 600mm Ball Bearing runners to suit rail spacing between 520 - 740mm
Weight:	12 kg. (Powered Version)
Operating Environment:	0º to 50º Celsius (Ambient) 15% to 85% Relative humidity (non-condensing)

Ordering Options

INTG-995220PEEU8 Rack Drawer powered with SMART 8Amp PSU (Europe)*
INTG-995220PEEU3 Rack Drawer powered with SMART 3Amp PSU (Europe)
INTG-995220PEEU2 Rack Drawer powered with 2Amp PSU (Europe)
995220 Rack Drawer (Drawer Only)

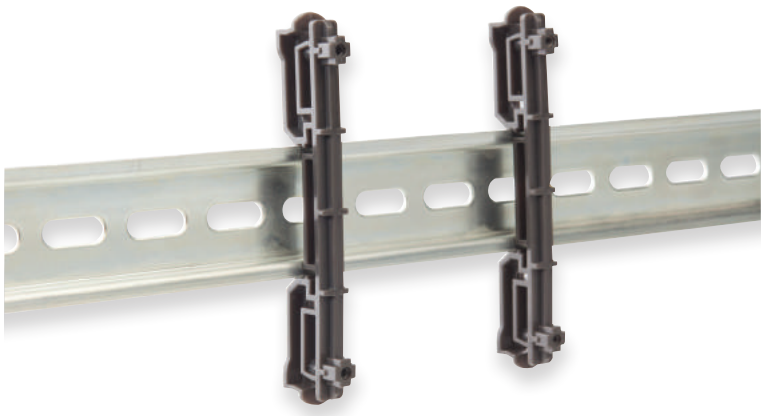
*Product not available in EU at time of printing

integriti

DATA SHEET

DIN Rail Clips

DIN Rail clips feature a universal design allowing many Inner Range circuit boards, including the T4000 Alarm Communicator and Inception Controller, to be mounted directly onto standard 35mm DIN rail.

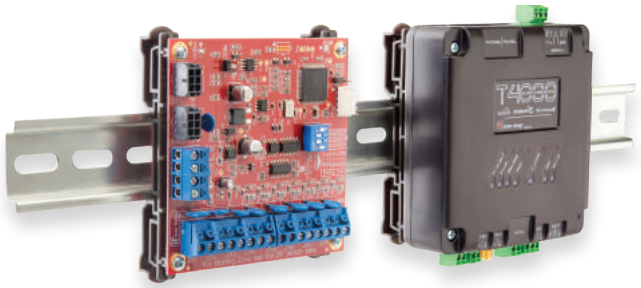


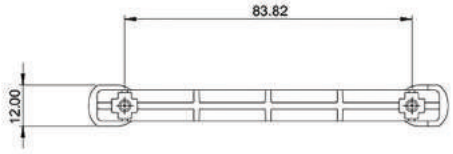
DIN Rail clips can be used to mount the following Inner Range products.

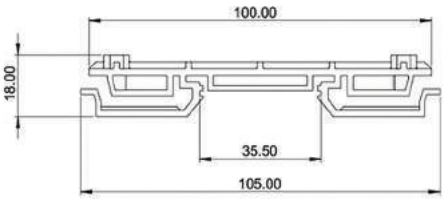
- T4000 Alarm Communicator
- Inception Controller
- Integriti Size "B" & "C" PCB'S including:
  - All Integriti UniBus PCB's
  - Intelligent LAN Access Module (ILAM)
  - Standard LAN Access Module (SLAM)
  - 1 Door Access Module
  - Integriti 8 Zone Expander
  - Integriti 2A & 3A Power Supply's
  - LAN Over Ethernet Device (CLOE)
  - LAN Isolator
  - Fibre Modem's
  - Fire Door Release Relay Card

The DIN rail clip pack Includes

- 2 x DIN Rail Clips
- 4 x M3x35mm Screws to suit T4000 & Inception Products
- 4 x M3 Self tapping screws to suit general PCB mounting







Ordering Options

INTG-999028

Din Rail Clip Pack (2 Clips)

Product Index

integriti
INTEGRATED SOLUTIONS

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Software

Hardware

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Hardware (cont.)

Multipath-IP

Power Supplies

Enclosures

Product is available via the Inner Range Technology Partner Program.

Product scheduled for future release at time of publication.

Parts & Accessories

INTERFACE CABLES		
Computer Interface RS232 UART to DB9	993009	58
Serial Printer Interfaced RS232 UART to DB25	993026	58
Modem Interface RS232 UART to DB25	993027	58
Integriti/Concept LAN Ancillary Cable	993028	-
Integriti/Concept PORT 0 Interface DB9	993030	-
Integriti/Concept PORT 0 USB Interface (Includes Device Driver CD)	993030USB	-

POWER CABLES		
Integriti Heavy Duty Battery Lead	999048	-
Eyelet-to-Eyelet cable set for 18Ah parallel batteries	999067	-
Integriti SMART PSU Patch Cable 430mm 10Way	INTG-996792	80
Integriti Ext PSU Bypass Link	INTG-996793	-
Integriti PSU 500mm for 3rd Party Power Supplies 10 Way - Red&Black	INTG-996794	80

MULTIPATH-IP CABLES		
T4000 Integriti/Concept Port Zero Connection Lead	INTG-996795	76
T4000 Integriti/Concept UART Interface Cable	INTG-996796	76
T4000 Inception USB Interface Cable	INTG-996797	76
T4000 Paradox Upload/Download Cable	993041	-
T4000 Challenger V10 Upload/Download Cable	993042	-
Integriti MPIP OmniLink Interface Port Zero	INTG-996790	-
FE3000 Programming Lead DB9-10WAY IDC	993039	-
FE3000/GSM Modem Interface 1 Metre Cable Kit	994092	-
FE3000/GSM Modem Interface 5 Metre Cable Kit	994092B	-

ANTENNAS		
6.5dBi Hi-Gain Antenna with 5 Metre Cable	994093	76
4.5dBi Hi-Gain Antenna with 10 Metre Cable	994094	76
9dBi Hi-Gain Directional Yagi 6 Element Antenna with 10 Metre Cable	994097	-

UNIBUS CABLES		
UniBus Patch Cable 150mm 6Way	INTG-996791SS	30
UniBus Patch Cable 220mm 6Way	INTG-996791S	30
UniBus Patch Cable 270mm 6Way	INTG-996791L	30
UniBus Patch Cable 475mm 6Way	INTG-996791LL	30
UniBus Patch Cable 675mm 6Way	INTG-996791XL	30

TRANSFORMERS & PLUG PACK		
4 Amp Transformer	560005	-
3 Amp Transformer	560007	-
T4000 18VDC Plug Pack (has 2 way connector fitted) 2 Pack	999065	76
Inception 24VDC Plug Pack	999066AU	-
240V/16V-1.5Amp 3 Wire Plug Pack	999004	-
240V/16V-3Amp 3 Wire Inline Plug Pack	999012	-

SURGE DIVERTERS		
Low Voltage AC and Battery Surge Diverter	995040	85
RS-485 LAN Surge Diverter	995041	85
PSTN (Telephone Line) Surge Diverter	995042	85

LAN & POWER HUBS		
LAN Hub Board 9-Way RS-485 Hub with DET Plus & Minus power hub	995910	85
LAN Hub Board 10-Way RS-485 or breaks into 3 separate hubs (3, 3 & 4-Way)	995911	85
Detector Power Distribution Hub Board 32-Way	995914	85
Mini LAN Hub Board 8-Way RS-485 Hub	995915	85

PASSIVE RELAY CARDS		
2 x 10Amp x 8 Passive Relay Card (Break away segments)	995083M	85
1Amp DPDT Passive Relay Card	995085	85
4 Way Fire Door Release Relay & DC Power Hub	995916	85

SPARE PARTS & HARDWARE		
IR Fuse Pack	999000	-
PCB Self Adhesive Standoff Pack 10 x 12mm	999001	-
PCB Mounting Clip Pack 25 Clips & Screws	999002	-
16mm PCB Standoff Kit 10 x 16mm Spacers & Screws	999003	-
35mm PCB Standoff Kit 10 x 35mm Spacers & Screws	999009	-
Grommet Pack	999014	-
2K2 Resistor Pack 20 x 2K2 Resistors	999016	-
6K8 Resistor Pack 20 x 6K8 Resistors	999017	-
RS-485 LAN Chip Pack 6 x LAN Chips	999018	-

CONNECTOR BLOCKS		
2 Way Terminal Block Pack 8 x 2 Way	999019	-
3 Way Terminal Block Pack 8 x 3 Way	999020	-
8 Way Terminal Block Pack 4 x 8 Way	999021	-
3 Way Fused Terminal Block Kit	999022	-
Fused IEC Socket Kit for Rack Drawer	999061	-

ELITE TERMINAL PARTS		
Elite Terminal Large Door (Ivory)	999049	-
Elite Terminal Large Door (White)	999049WH	-
Elite Terminal Case Full Kit (White)	910010WH	-
Elite Terminal Case Full Kit (Ivory)	910010	-
Elite Terminal Keymat	999050	-
Elite Term Tamper Switch Lever Pack of 2 (Ivory)	999054	-
Elite Term Tamper Switch Lever Pack of 2 (White)	999055	-
Adhesive for Elite Term Lens Pack of 2	999052	-

ENCLOSURE ACCESSORIES		
19mm Normally Open Tamper Switch Kit For Weather Proof Housing	999007	-
19mm Normally Closed Tamper Switch Kit (Open when Pin Pressed)	999008	-
15mm TOP Tamper Bracket Suits Low Profile Metal Work Pack of 4	999013	-
19mm TOP Tamper Switch Bracket Suits Low Profile Metal Work Pack of 4	999011	-
Small Universal Plate Kit suit XS & S enclosures	999024	-
Medium Integriti Plate Kit Suit M, XL & WB Enclosures	999026	-
Large Universal Plate Kit suit XL enclosure	999006	-
Widebody Hinged Expansion Plate Kit suits WB Enclosure	999027	-
Mounting Plate for Rack Drawer	999062	-
Extra Plastic Battery Tray for Rack Drawer	999060	-
Universal Battery Bracket for 7Ah Battery. M & XL Enclosures	926005	-
Universal Battery Bracket for 17Ah Battery. M & XL Enclosures	926019	-
DIN Rail Mounting Clips	999028	93

integriti Our Integration Partners

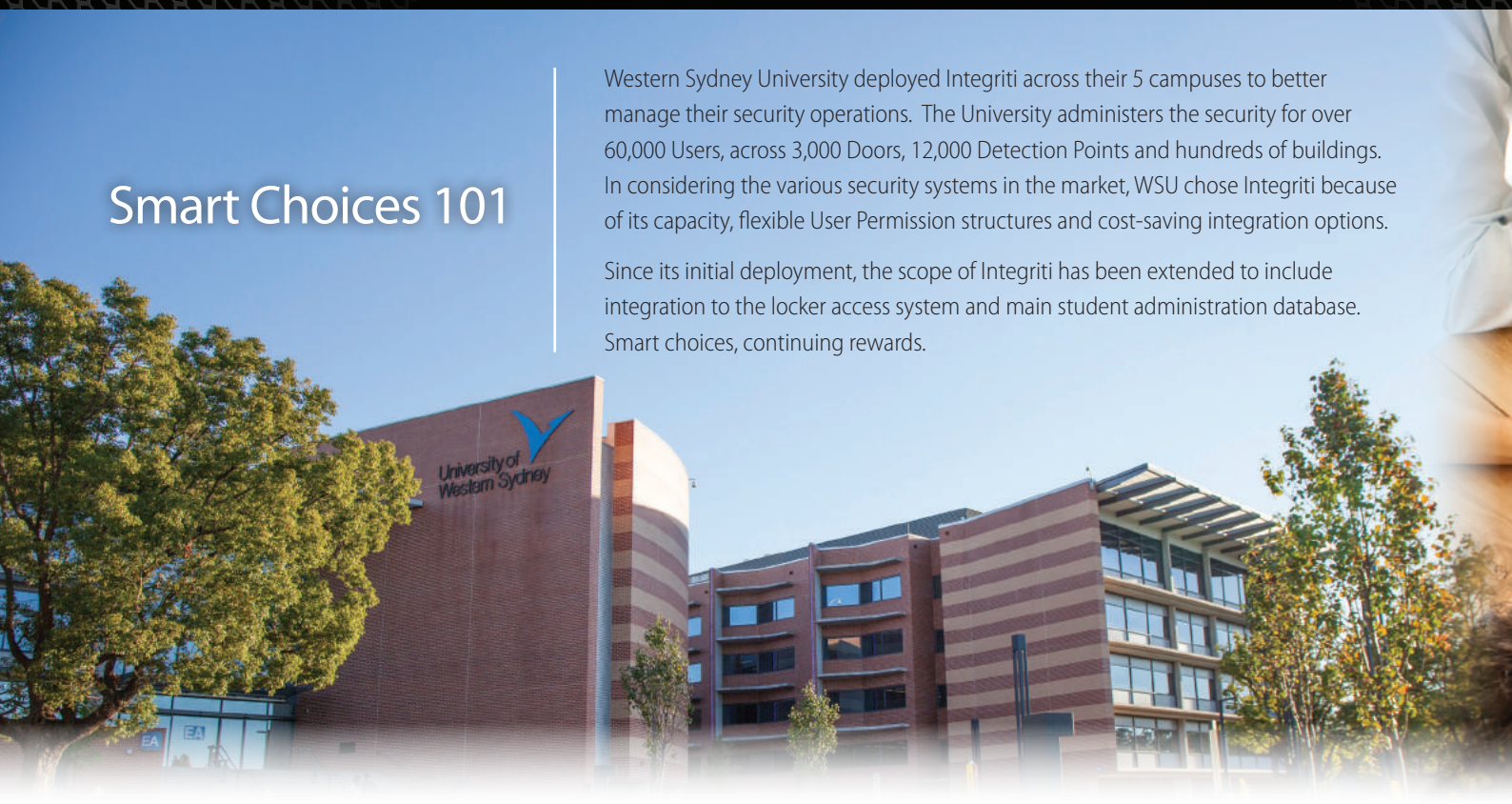
The Inner Range partner portfolio includes many of the world's leading security and building technology products. The Integriti Security Management System can be integrated with these otherwise disparate systems, in order to create a comprehensive and centrally managed integrated security solution.

integriti And it just makes good business sense ...

Smart Choices 101

Western Sydney University deployed Integriti across their 5 campuses to better manage their security operations. The University administers the security for over 60,000 Users, across 3,000 Doors, 12,000 Detection Points and hundreds of buildings. In considering the various security systems in the market, WSU chose Integriti because of its capacity, flexible User Permission structures and cost-saving integration options.

Since its initial deployment, the scope of Integriti has been extended to include integration to the locker access system and main student administration database. Smart choices, continuing rewards.



Integriti, while feature complete, is at the early stages of its product development life-cycle. Your return on investment is optimised as the typical operational life-expectancy of an Inner Range system is measured in decades.

Integriti boasts powerful, yet intuitive, cardholder permission programming. The use of "Allow" and "Deny" functions greatly simplify system administration. Operator training, and associated costs are minimal.

Integriti includes a feature-rich suite of tools such as graphical maps, powerful reporting, card printing, alarm management, compliance based access control, email/SMS/pager communications and much, much more.

Mobile Apps for Apple and Android are available for remote monitoring and control.

The Integriti system enables cardholder location and activity information to be shared with Building Management Systems, Air-Conditioning and Lighting systems to reduce the energy costs associated with these services.

The Integriti system can share cardholder data with your company's Active Directory, Employee Database, Payroll System, Student Database or Booking System to reduce the labour costs associated with data entry and cardholder record management.

Integriti supports a wide range of non-proprietary cards, readers, locks, detectors and other peripheral devices. You are not locked into buying the manufacturers specific consumables or peripheral components. A choice of vendors gives you the competitive advantage.

Integriti is a non-proprietary system. You have a wide choice of competent security companies from which to choose. Refer to the Inner Range website for the details of recommended companies.

While Inner Range does make Software Maintenance Agreements (SMA's) available it does not impose annual licence fees or mandatory SMA's. Consider the Total Cost of Ownership over the system's lifetime when comparing an Inner Range system to others. You'll be pleasantly surprised.

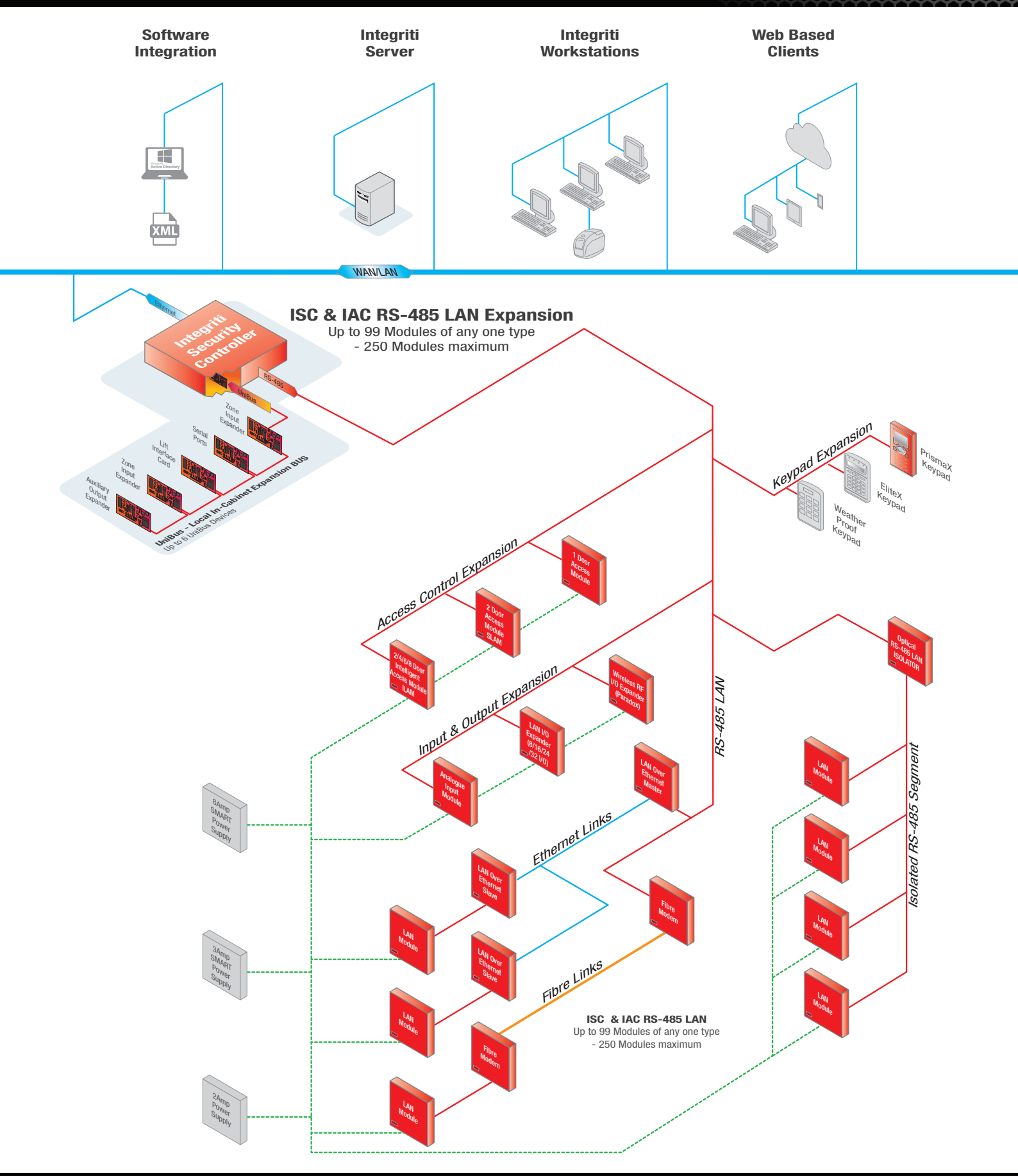
integriti Professional Services

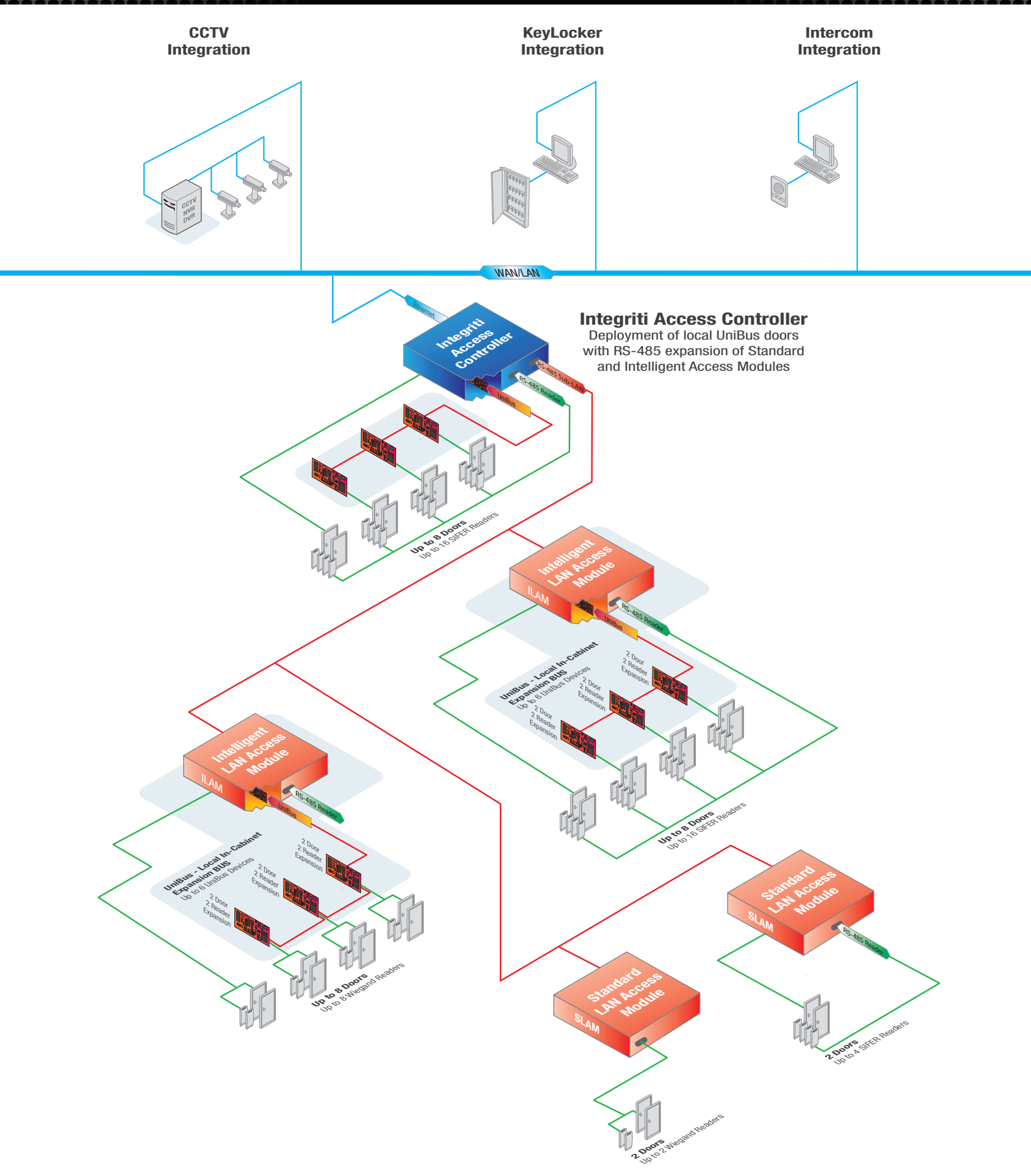
Inner Range stands behind the quality of its products. Our dealers and customers are fully supported by the Inner Range Professional Services team. A range of free and fee-based services are available, including:

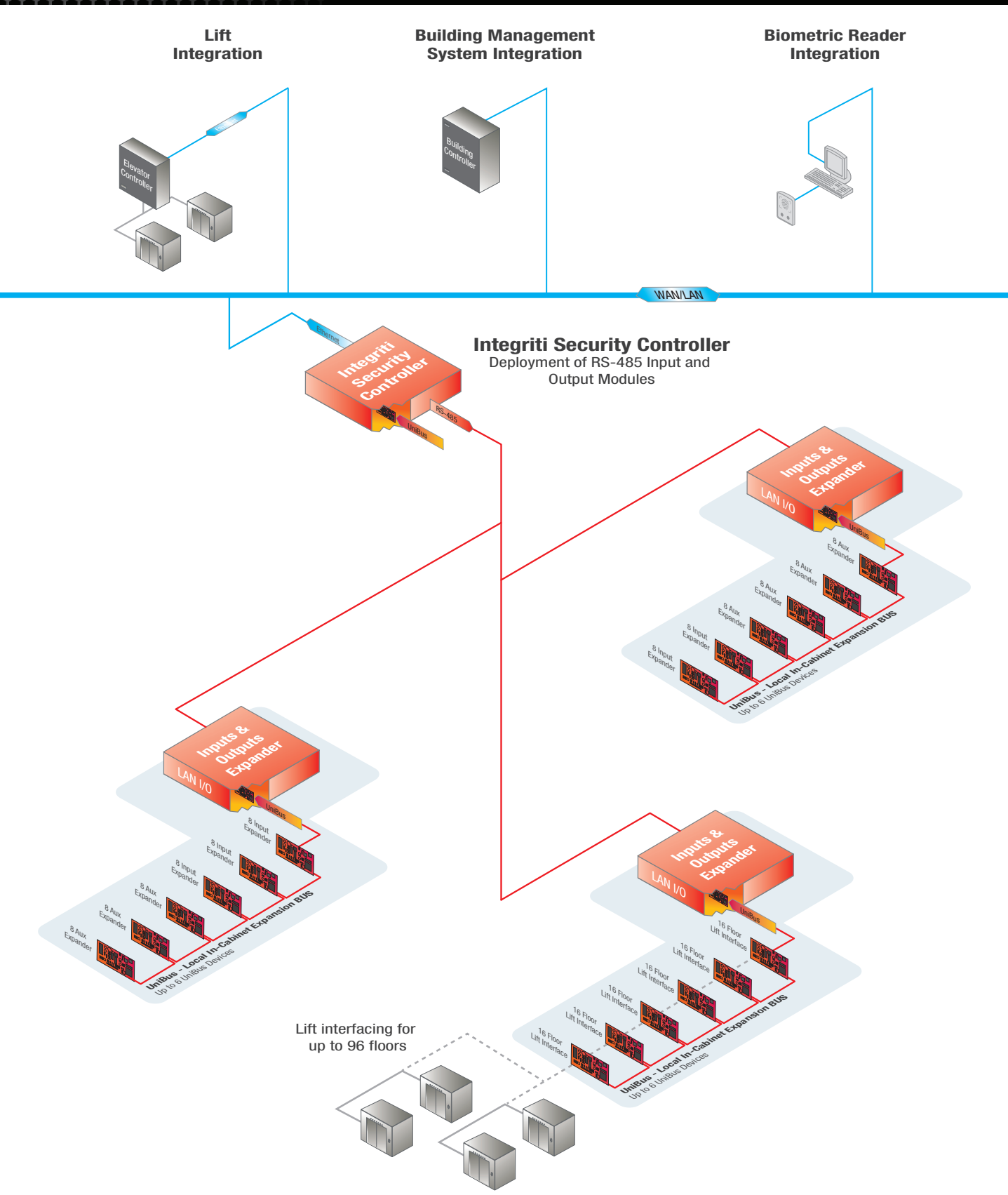
- Software Maintenance Agreements
- Remote Software Support
- System Audits
- Pre-sales Design and Specification Assistance
- Programming and Configuration Support
- Complex Report Writing Service
- System Migration Support
- Custom High Availability Solutions
- Custom Integration Solutions
- Bespoke Development Services

Please contact Inner Range Professional Services for further details.
professionalservices@innerrange.com
+61 3 9780 4300

integriti Deployment Architecture




CCTV Integration
KeyLocker Integration
Intercom Integration
CCTV NVR DVR
WAN/LAN
Integriti Access Controller
RS-485 Sub-LAN
RS-485 Readers
UniBus
Up to 8 Doors
Up to 16 SIFER Readers
Integriti Access Controller
Deployment of local UniBus doors with RS-485 expansion of Standard and Intelligent Access Modules
Intelligent LAN Access Module
ILAM
RS-485 Readers
UniBus
UniBus - Local In-Cabinet Expansion BUS
Up to 6 UniBus Devices
2 Door 2 Reader Expansion
Up to 8 Doors
Up to 16 SIFER Readers
Intelligent LAN Access Module
ILAM
RS-485 Readers
UniBus
UniBus - Local In-Cabinet Expansion BUS
Up to 6 UniBus Devices
2 Door 2 Reader Expansion
Up to 8 Doors
Up to 8 Wiegand Readers
Standard LAN Access Module
SLAM
RS-485 Readers
2 Doors
Up to 4 SIFER Readers
Standard LAN Access Module
SLAM
2 Doors
Up to 2 Wiegand Readers


Lift Integration
Building Management System Integration
Biometric Reader Integration
Elevator Controller
Building Controller
WAN/LAN
Integriti Security Controller
Ethernet
RS-485
UniBus
Integriti Security Controller
Deployment of RS-485 Input and Output Modules
Inputs & Outputs Expander
LAN I/O
UniBus
8 Aux Expander
8 Input Expander
UniBus - Local In-Cabinet Expansion BUS
Up to 6 UniBus Devices
16 Floor Lift Interface
Lift interfacing for up to 96 floors

integriti

Accredited Dealers

The Inner Range Accredited Dealer Program gives Inner Range customers easy access to a choice of experienced and reputable companies for the installation and service of their intruder alarm and access control system. It is a condition of accreditation that all Accredited Dealers abide by a published Code of Practice. For a company to hold Accredited Dealer status, they must at all times employ at least one Factory Certified Professional.

Inner Range strongly recommends that customers use an Accredited Dealer whose certification level suits their particular application. A list of current Accredited Dealers can be found at: www.innerrange.com/sales

Factory Certified Training

Inner Range provides three pathways for training and certifications:

1. **Interactive Online Classroom Training.**
   Our structured classroom training allows individuals to learn from one of our 8 online training centres throughout the country. This style of training suits individuals who might want to complete the certification in a short duration or simply need that extra bit of assistance from our trainers. The assessment is conducted on the last day of the course.
2. **Interactive Online Self-Paced Training.**
   This self-paced online content allows users who are unable to attend our interactive classroom training an opportunity to learn in their own time and at their own pace. These courses run all year and can be commenced at any time.
   Learning assistance is provided during standard business hours, or using our online discussion boards. Once the participant feels confident in their knowledge they simply need to attend one of the Inner Range assessment days to undertake the official test.
3. **Training Assessment Days.**
   Inner Range certifications are competency based. Individuals who are familiar with the learning outcomes can simply attend an assessment day. Assessment days are conducted throughout the year at our 8 online training centres, conveniently located at Central Security Distribution branches.

Certified Technician

Basic to medium complexity Integriti systems.
E.g.: a small business.

Advanced Technician

Medium to high complexity Integriti systems.
E.g.: multi-site installations, large businesses, integrated solutions.

All certified technicians are issued with an ID card showing their level of certification and expiry date.
Certifications are valid for 3 years and may be renewed for a further 3 years by passing the appropriate assessment.
Certification ID cards should be available to be shown if requested.

inner range

www.innerrange.com

inner range

Intelligent Security Solutions

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