integriti
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. 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)
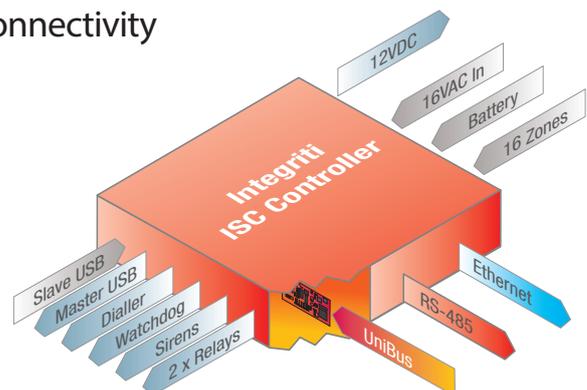
ISC Operating Level Expansion Options

- 996020L1 - Level 1 SMART Card: 40 Doors, 200 Zones, 2,000 Users, 20,000 Events
- 996020L2 - Level 2 SMART Card: 80 Doors, 600 Zones, 10,000 Users, 30,000 Events
- 996020L3 - Level 3 SMART Card: 160 Doors, 2,000 Zones, 65,000 Users, 60,000 Events
- 996020L4 - Level 4 SMART Card: 240 Doors, 3,000 Zones, 100,000 Users, 100,000 Events
- 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)
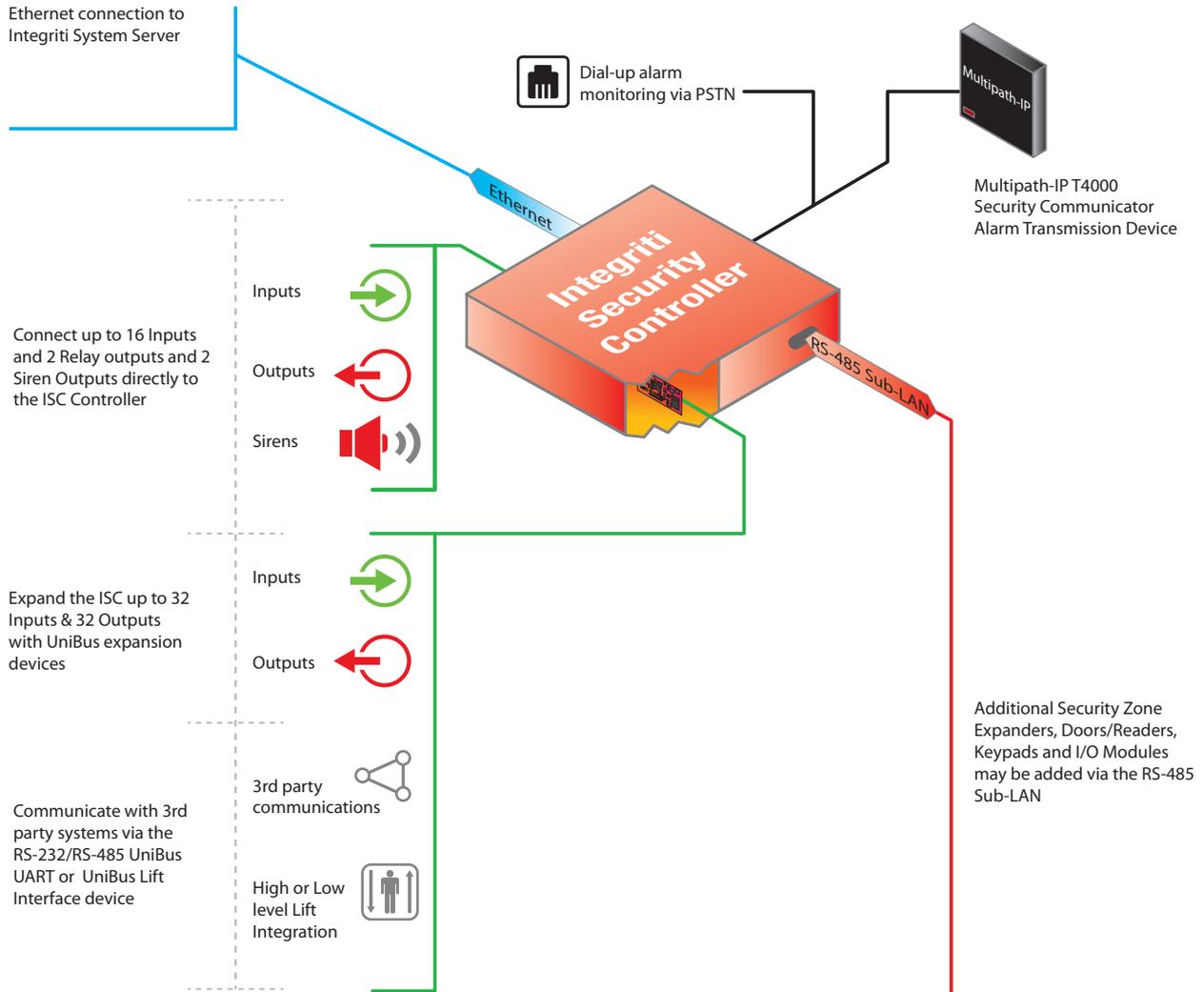
Connectivity

12VDC
16VAC In
Battery
16 Zones
Integriti ISC Controller
Slave USB
Master USB
Dialler
Watchdog
Sirens
2 x Relays
UniBus
RS-485
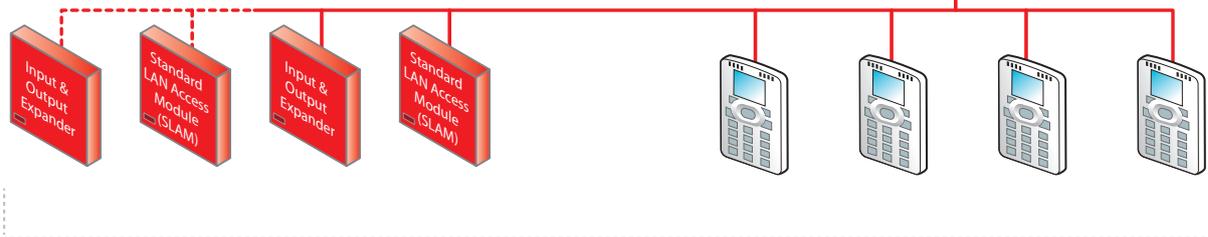Ethernet

integriti

Hardware

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

Ethernet connection to Integriti System Server

Dial-up alarm monitoring via PSTN

Multipath-IP

Ethernet

Multipath-IP T4000 Security Communicator Alarm Transmission Device

Integriti Security Controller

RS-485 Sub-LAN

Inputs

Outputs

Sirens

Connect up to 16 Inputs and 2 Relay outputs and 2 Siren Outputs directly to the ISC Controller

Inputs

Outputs

Expand the ISC up to 32 Inputs & 32 Outputs with UniBus expansion devices

Additional Security Zone Expanders, Doors/Readers, Keypads and I/O Modules may be added via the RS-485 Sub-LAN

3rd party communications

High or Low level Lift Integration

Communicate with 3rd party systems via the RS-232/RS-485 UniBus UART or UniBus Lift Interface device

RS-485 Sub-LAN Expansion

Input & Output Expander

Standard LAN Access Module (SLAM)

Input & Output Expander

Standard LAN Access Module (SLAM)

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

Security Controller (ISC)

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	✓ TELEPERMIT CE
Environmental	RoHS

Ordering Options

Integriti ISC in Medium Enclosure
996001AUPS – For Australia
996001EUPS – For Europe

Integriti ISC PCB & Accessories
996001AUPCB&K – For Australia
996001EUPCB&K – For Europe

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

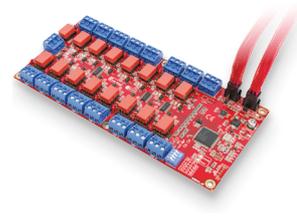## Ordering Options - UniBus Devices for ISC

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

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

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

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

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