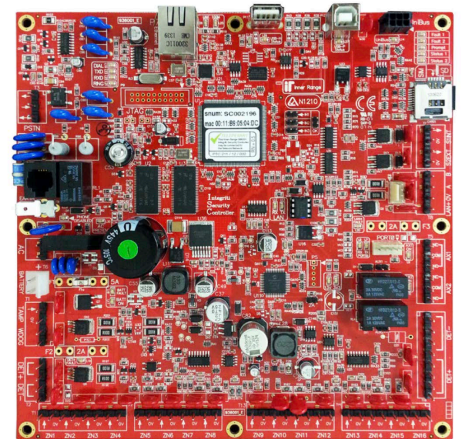# integriti
Security Controller (ISC)

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 250 Doors. User capacity of up to 100,000 users is available, and capacity for 1,000,000 users is also available with the 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 if connected using Ethernet Bridge or CLOE devices.

21000P
Integriti Security Controller (ISC)

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
- 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

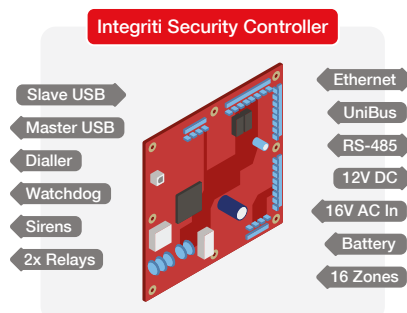| UniBus Device Compatibility Guide		UniBus Host Module			
		ISC	IAC	8 Zone Expander	ILAM
UniBus Device	8 Zone Expander	2	0	3	0
	8 Relay Expander	4	2	4	2
	2 Door / 2 Reader Expander	0	3	0	3
	16 Floor Lift Interface	6	6	6	6
	RS-232/RS-485 UART	4	4	0	0
	Analogue Expander	4	0	6	0

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 250 via RS-485 Sub-LAN
- Readers - Expandable to 1,584 via RS-485 Sub-LAN
- On-board User capacity -100,000, 1,000,000 with User Expansion Kit fitted
- On-board Review Events - 100,000
- Ports - RS-232 / RS-485 Serial Ports - Expandable to 8 with UniBus UART

Integriti ISC Standard Operating Level

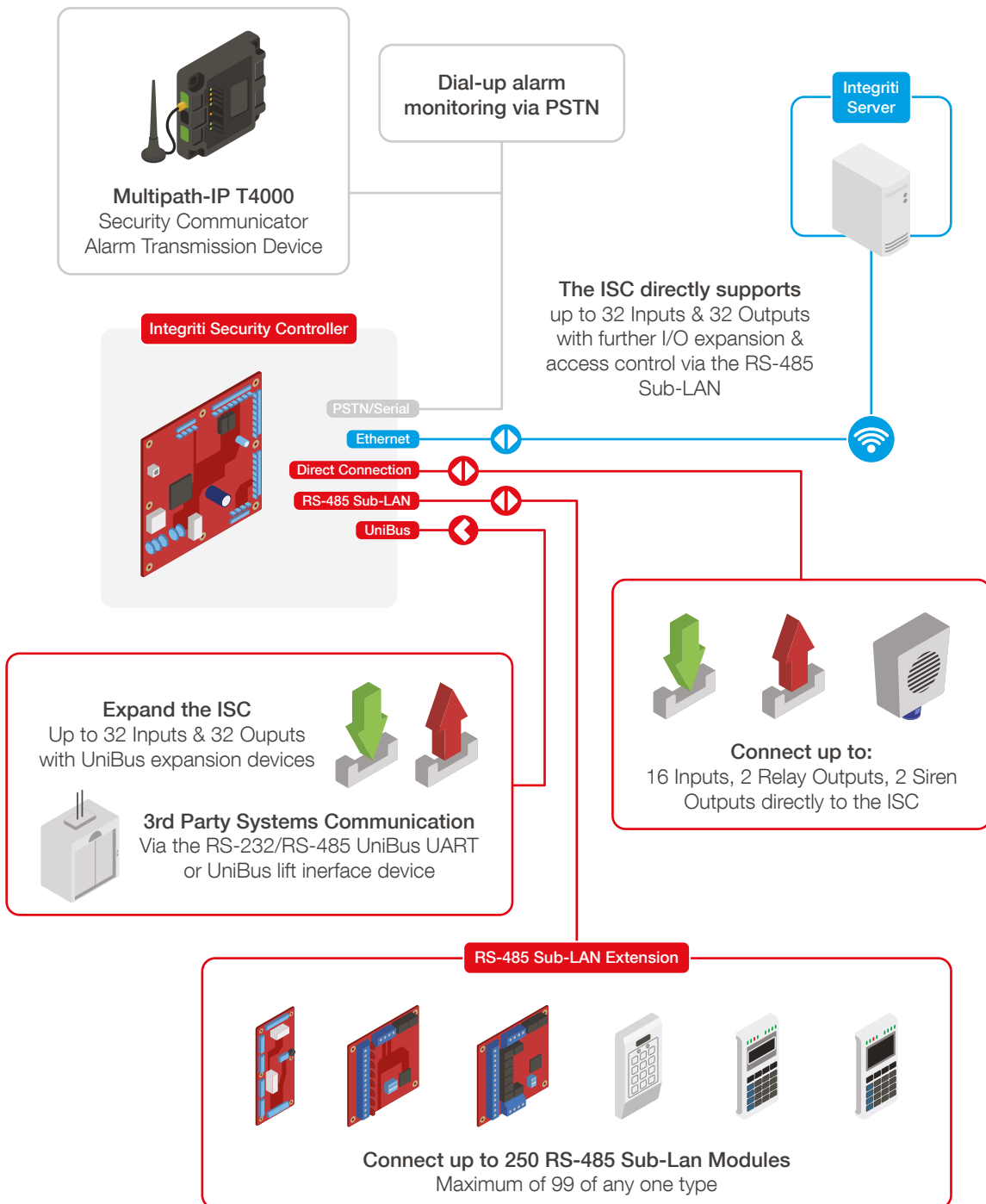- 250 Doors, 3,000 Zones, 100,000 Users, 100,000 Events

Connectivity

Integriti Security Controller

Slave USB
Master USB
Dialler
Watchdog
Sirens
2x Relays

Ethernet
UniBus
RS-485
12V DC
16V AC In
Battery
16 Zones

inner range

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

Dial-up alarm monitoring via PSTN

Integriti Server

Multipath-IP T4000
Security Communicator
Alarm Transmission Device

Integriti Security Controller

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

PSTN/Serial

Ethernet

Direct Connection

RS-485 Sub-LAN

UniBus

Connect up to:
16 Inputs, 2 Relay Outputs, 2 Siren Outputs directly to the ISC

Expand the ISC
Up to 32 Inputs & 32 Ouputs with UniBus expansion devices

3rd Party Systems Communication
Via the RS-232/RS-485 UniBus UART or UniBus lift inerface device

RS-485 Sub-LAN Extension

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)
Shipping Weight :	6.5kg (In medium enclosure with mains transformer 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	☑ RCM CE ✔ TELEPERMIT
Environmental	RoHS 🗑