Overview

The EZ Intelligent Door Controller (IDC) communicates with SATEON host software and provides system I/O for two 1-reader doors or one 2-reader door. In addition, an IDC offers an alarm input for general system use, a tamper input to protect the panel enclosure, and status monitoring for 2 x break-glass units.

Once loaded from the SATEON host system an IDC will independently process access rules and report system events to the system.

EZ - IP Intelligent Door Controllers

EZ IP door controllers connect to the SATEON PC network via an IP switch. No other data connection is required in order to work with SATEON. PoE is supported by incorporating a Grosvenor Technology PoE splitter which includes individual fuses for lock power, battery overload and battery charging circuits.

There is no limit to the number of IP controllers that can be connected to a SATEON system.

EZ - Serial RS485 Intelligent Door Controllers

EZ RS485 door controllers can be connected in-line with up to thirty-two controller nodes to form a SATEON ‘Field Network’. This in turn connects to the SATEON PC network via an IP Line Header.

There is no limit to the number of RS485 Field Networks that can be connected to a SATEON system.

Power Supply and Enclosures

EZ controllers install into a Grosvenor Technology enclosure or other equivalent of your choice. The standard Grosvenor enclosure includes an integral 2.5A PSU of which 2A is available for locks and peripherals. Alternatively, a PoE enclosure supplies up to 30 Watts when using the Grosvenor Technology PoE PSU injector.
EZ Intelligent Door Controllers

**Communication (RS485 EZ Door Controller)**
- 2-wire twisted pair RS485, 19.2k baud. For long runs or in harsh electrical environments use braided pair.

**Certification**
- BS EN 50133-1 + A1 1997 – Emissions and immunity standard for access control systems
- BS EN 55022 class B 1998 – Emissions standard for information technology equipment
- BS EN 50133-1 + A1 1997 – Immunity standard for access control systems
- BS EN 61000-4-2 1995 – ESD requirements
- BS EN 61000-4-3 + A1 2006 – Radiated susceptibility
- BS EN 61000-4-4 1995 – Electrical fast transient burst requirements
- BS EN 61000-4-5 1995 – Surges requirements
- BS EN 61000-4-6 1996 – Conducted susceptibility
- BS EN 61000-4-11 1994 – Voltage dips and interruptions
- Following the provisions of EU EMC Directives 89/336/EEC and 92/31/EEC
- UL 294 when used in conjunction with EZ-ENC-NPU-UL enclosure

**Ordering Information**
- EZ-SAT-IDC-E
  - IP Intelligent Door Controller - board only
- EZ-SAT-IDC-485
  - RS485 Intelligent Door Controller - board only
- EZ-ENC-2A-230V
  - Enclosure/Panel c/w 230V 2A mains PSU
- EZ-ENC-POE
  - POE Enclosure c/w POE splitter. Includes individual fused circuits for lock, battery overload and battery charging
- EZ-POE-PSU
  - 30W POE injector PSU
- EZ-ENC-NPU-UL
  - UL certified enclosure for use with EZ door and I/O controllers. A separate UL 294 PSU or POE injector is required

**Dimensions (H x W x D)**
- 106mm x 130mm x 38mm H, W, D (board only)
- 385 mm x 279 mm x 78 mm H, W, D (with EZ-ENC-2A-230V enclosure)
- 385 mm x 279 mm x 78 mm H, W, D (with EZ-ENC-POE enclosure)
- 355 mm x 305 mm x 102 mm H, W, D (with EZ-ENC-NPU-UL enclosure)

**Weight**
- 176g (IP board only)
- 172g (RS485 board only)
- 2.54 kg (EZ-ENC-2A-230V enclosure only)
- 2.35 kg (EZ-ENC-POE enclosure only)
- 3.6 kg (EZ-ENC-NPU-UL enclosure only)

**Operating Temperature**
- 0 to 49°C (32 to 120°F)

**Humidity**
- 5-85±5% at 30±2°C (86±4°F)

**Power Loading (No Readers Connected)**
- 182mA @12V (IP controller)
- 106mA @12V (RS485 controller)

**Battery Back-Up**
- A 7Ah battery will typically provide up to 4 hours reserve

**Card Reader Supply, Power Limited**
- 11.6 - 12V 500mA, 5V 200mA total (both ports)

**Outputs (LED/sounder)**
- Door forced, door wedged, valid token, invalid token

**Auxiliary Input**
- 1 supervised input

**Panel Tamper**
- Included

**Lock Switching Capacity**
- 3A, 30Vmax

**Memory**
- 65,000 token users, retained for 100 hours (with battery backed PSU)

**Communication (IP Door Controller)**
- RJ45 Ethernet 10/100 BASE-T. Optional encryption 128-bit Rijndael Advanced Encryption Standard (AES)
Overview

There are two types of EZ I/O controller:

- 8 x supervised alarm inputs with 4 x change-over relay outputs
- 8 x supervised alarm inputs with 16 x change-over relay outputs.

An additional tamper input is available on all boards to monitor the panel enclosure.

EZ - IP Intelligent I/O Controllers

EZ IP I/O controllers connect to the SATEON PC network via an IP switch. No other data connection is required in order to work with SATEON.

PoE is supported by incorporating a Grosvenor Technology PoE splitter or a specific PoE enclosure, both of which include additional protection with individual fuses for auxiliary power, battery overload and battery charging circuits.

There is no limit to the number of IP controllers that can be connected to a SATEON system.

EZ - Serial RS485 Intelligent I/O Controllers

EZ RS485 I/O controllers can be connected in-line with up to thirty-two controller nodes to form a SATEON 'Field Network'. This in turn connects to the SATEON PC network via an IP Line Header.

There is no limit to the number of RS485 Field Networks that can be connected to a SATEON system.

Power Supply and Enclosures

EZ controllers install into a Grosvenor Technology enclosure or other equivalent of your choice. The standard Grosvenor enclosure includes an integral 2.5A PSU of which 2A is available for locks and peripherals. Alternatively, a PoE enclosure supplies up to 30 Watts when using the Grosvenor Technology PoE PSU injector.

Features

- Type IO12 - 8 + 4 alarm inputs and relay outputs
- IP and RS485 versions available
- Type IO24 - 8 + 16 alarm inputs and relay outputs
- IP version only
- Power over ethernet supported
- Panel tamper monitoring
- Real-time processing at the controller
- On-board information LEDs
- Battery back-up
- Up to 4,000 event buffer if off-line
- No system limit for the number of controllers
EZ Intelligent I/O Controllers

**Dimensions (H x W x D)**
- 106mm x 130mm x 38mm H, W, D (IO12 board only)
- 106mm x 189mm x 38mm H, W, D (IO24 board only)
- 385 mm x 279 mm x 78 mm H, W, D (with EZ-ENC-2A-230V enclosure)
- 385 mm x 279 mm x 78 mm H, W, D (with EZ-ENC-POE enclosure)
- 355 mm x 305 mm x 102 mm H, W, D (with EZ-ENC-NPU-UL enclosure)

**Weight**
- 162g (IP IO12 board only)
- 156g (RS485 IO12 board only)
- 256g (IP IO24 board only)
- 2.54 kg (EZ-ENC-2A-230V enclosure only)
- 2.35 kg (EZ-ENC-POE enclosure only)
- 3.6 kg (EZ-ENC-NPU-UL enclosure only)

**Operating Temperatures**
- 0°C to 50°C

**Maximum Current Draw (All Relays On)**
- 185mA (RS485 IO12 controller)
- 245mA (IP IO12 controller)
- 725mA (IP IO24 controller)

**Battery Back-Up (12V 7Ah)**
Battery duration will depend upon the type of controller and the combined rating of peripherals connected. A 7Ah battery will typically provide up to 4 hours reserve.

**Panel Tamper**
- Included

**Communication (IP Controller)**
- RJ45 Ethernet 10/100 BASE-T, 10/100 Mbps, DHCP supported.

**Optional encryption (IP Controller)**
- 128-bit Rijndael Advanced Encryption Standard (AES)

**Communication (RS485 Controller)**
- 2-wire twisted pair RS485. For long runs or in harsh electrical environments use braided pair. 19.2k baud

**Certification**
- BS EN 50133-1 + A1 1997 – Emissions and immunity standard for access control systems
- BS EN 55022 class B 1998 – Emissions standard for information technology equipment
- BS EN 50133-1 + A1 1997 – Immunity standard for access control systems
- BS EN 61000-4-2 1995 – ESD requirements
- BS EN 61000-4-3 + A1 2006 – Radiated susceptibility
- BS EN 61000-4-4 1995 – Electrical fast transient burst requirements
- BS EN 61000-4-5 1995 – Surges requirements
- BS EN 61000-4-6 1996 – Conducted susceptibility
- BS EN 61000-4-11 1994 – Voltage dips and interruptions

Following the provisions of EU EMC Directives 89/336/EEC and 92/31/EEC

**Ordering Information**
- EZ-SAT-IO12-E
  - IP IO12 Controller - board only
- EZ-SAT-IO12-485
  - RS485 IO12 Controller - board only
- EZ-SAT-IO24-E
  - IP IO24 Controller - board only
- EZ-ENC-2A-230V
  - Enclosure/Panel c/w 230V 2A mains PSU
- EZ-ENC-POE
  - POE Enclosure c/w POE splitter. Includes individual fused circuits for auxiliary power, battery overload and battery charging
- EZ-POE-PSU
  - 30W POE injector PSU
- EZ-ENC-NPU-UL
  - UL certified enclosure for use with EZ door and I/O controllers. A separate UL 294 PSU or POE injector is required

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Overview

An IP Line Header is used to connect a SATEON 2-wire RS485 Field Network to a main SATEON PC network.

IP Line Headers connect directly to SATEON via an IP switch and no other data connection is required in order to work with SATEON.

PoE is supported by incorporating a Grosvenor Technology PoE splitter or a specific PoE enclosure, both of which include additional protection with individual fuses for auxiliary power, battery overload and battery charging circuits.

EZ RS485 Field Networks

EZ RS485 controllers can be connected in-line with up to thirty-two controller nodes to form a SATEON ‘Field Network’.

There is no limit to the number of RS485 Comms Lines that can be connected to a SATEON system.

Power Supply and Enclosures

EZ IP Line Headers install into a Grosvenor Technology enclosure or other equivalent of your choice. The standard Grosvenor enclosure includes an integral 2.5A PSU of which 2A is available for locks and peripherals. Alternatively, a PoE enclosure supplies up to 30 Watts when using the Grosvenor Technology PoE PSU injector.

Features

- IP to RS485 2-wire converter (2-wire plus braid)
- Enables routing of RS485 Field Network via a PC network
- 10/100 BASE-T
- DHCP supported
- Optional 128-bit Rijndael Advanced Encryption Standard (AES)
- Power over ethernet supported
- 32 controller nodes per SATEON Field Network
- 1,200 Mtrs Field Network cable run supported
- No system limit for the number of IP Line Headers
EZ IP Line Header

Dimensions (H x W x D)
- 105mm x 72mm x 18mm (board only)
- 385 mm x 279 mm x 78 mm, H, W, D (with EZ-ENC-2A-230V enclosure)
- 385 mm x 279 mm x 78 mm, H, W, D (with EZ-ENC-POE enclosure)
- 355 mm x 305 mm x 102 mm, H, W, D (with EZ-ENC-NPU-UL enclosure)

Weight
- 60g (board only)
- 2.54 kg (EZ-ENC-2A-230V enclosure only)
- 2.35 kg (EZ-ENC-POE enclosure only)
- 3.6 kg (EZ-ENC-NPU-UL enclosure only)

Operating Temperatures
0°C to 50°C

Power Requirement
- 10-16V DC, 400mA maximum

Battery Back-Up
Yes - requires enclosure with suitable PSU

Connectivity (Upstream)
- 10/100 BASE-T, DHCP supported

Optional encryption
- 128-bit Rijndael Advanced Encryption Standard (AES)

Connectivity (Downstream)
- 2-wire (and braid) RS485

Field Network
- 1 x 32 nodes

Communication Speed
- 1,200 - 115.2Kbaud

Certification
- BS EN 50133-1 + A1 1997 – Emissions and immunity standard for access control systems
- BS EN 55022 class B 1998 – Emissions standard for information technology equipment
- BS EN 50133-1 + A1 1997 – Immunity standard for access control systems
- BS EN 61000-4-2 1995 – ESD requirements
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- BS EN 61000-4-6 1996 – Conducted susceptibility
- BS EN 61000-4-11 1994 – Voltage dips and interruptions

Following the provisions of EU EMC Directives 89/336/EEC and 92/31/EEC

UL 294 when used in conjunction with EZ-ENC-NPU-UL enclosure

Ordering Information
- EZ-LH-ENET-485 EZ IP Line Header - (board only)
- EZ-ENC-2A-230V Enclosure/Panel c/w 230V 2A Mains PSU
- EZ-ENC-POE POE Enclosure c/w POE splitter. Includes individual fused circuits for auxiliary power, battery overload and battery charging
- EZ-POE-PSU 30W POE injector PSU
- EZ-ENC-NPU-UL UL certified enclosure for use with EZ door and I/O controllers. A separate UL 294 PSU or POE injector is required

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DS-SAT-004-02 EZ IP Line Header
Overview

The SATEON EZ-Box is an ultra compact PC system, for use with the SATEON access control.

As standard, the EZ-Box will include the base license to allow up to 10 panels and 500 personnel. Additional license capabilities can be added to support up to 50 panels and 10,000 personnel. For those end users that have heavy reporting requirements or need to support multiple simultaneous users, an alternative server is recommended - a specification can be provided by your Account Manager.

With the modular design of the EZ-Box, memory and storage can be easily upgraded.

For larger systems a main PC/server can be employed.

SATEON EZ-Box

The SATEON EZ-Box incorporates 4x USB ports, for which an external memory device can be used to ensure a back-up of the database is preserved.

There is no physical dongle with SATEON; only a software key. This makes for easy work when updating or extending a system as the license files are very small and can be distributed by email.

Features

- Pre-loaded and configured with SATEON and Windows 8.1 Professional
- Intel Core i3 Processor
- VESA Mount Bracket included
- Keyboard and Mouse included
- 120GB, 6GB/s SSD
- 8GB DDR Memory

Power Supply

EZ-Boxes are powered with a 230Vac 65W adaptor which is included with the EZ-Box package.

Technical Specifications

Dimensions (W x D x H)
116.6mm x 112mm x 34.5mm

Operating Temperature
0°C to 50°C

Power Requirements
DC Power 12 to 19 V, 65 W
Power Cord Options (Types B, E, and G)

Processor
Intel® Core™ i3 4010U Processor (1.7 Ghz Dual-Core processor with 3 MB smart cache)

Graphics
Intel® HD Graphics 4400
One Mini DisplayPort 1.2 supporting ultra-high definition 4K displays and multiple monitor functionality
One Mini HDMI 1.4a port

System Memory
Dual-channel DDR3L with two connectors for 1600/1333 MHz memory support (16 GB max)

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DS-GTL-005/04 EZ-Box Embedded PC System