

# Monitored Ethernet Switches

## 10 & 18 port, SNMP, Modbus/TCP

### Models SEC310-2SFP-T, SEC318-2SFP-T



SEC310-2SFP-T



SEC318-2SFP-T

### Features & Benefits

- Communicates with HMI/SCADA software via Modbus/TCP
- Integrated with iView<sup>2</sup>™ - SNMP Management Software (free download)
- Energy Efficient Ethernet (EEE), IEEE 802.3az for low energy consumption
- Wide temperature range -40 to 75°C
- DIN rail or wall/panel mountable
- Redundant dual 12 to 48 VDC power inputs
- EMS Level 3 Protection
- Designed for hazardous locations: UL C1D2, ATEX Zone 2 (pending), IECEx (pending)
- Port-based QoS feature for deterministic data transmission
- Loop detection and event alarm
- Power failure indicated by a relay and LED indicator



### Introduction

SE300 series is the industry's first design for Ethernet Green®, IEEE802.3az - Energy Ethernet switches that cut power usage by up to 60%, significantly saving energy usage in the field and reducing total cost of ownership over 24/7.

Advantech B+B SmartWorX SE300 series monitored switches can be used as plug-and-play unmanaged switches right out of the box. Installing the iView<sup>2</sup> Network Management Software gives them basic monitoring and management capabilities as well. They bridge the gap between unmanaged switches and significantly more expensive, fully managed solutions.

When enabled with iView<sup>2</sup>, these switches provide IP address assignment, allowing for a static IP address or an address that is discoverable via DHCP in the network. Then, these switches have the ability to use Modbus/TCP to communicate with HMI/SCADA software and SNMP to communicate with NMS (Networking Management Software) at the same time. This gives full access control to both control engineers and IT managers.

### Basic Monitoring & Management Capabilities

iView<sup>2</sup> gives network managers the ability to monitor and manage eWorX SE300 series switches from a central location. It features an intuitive Graphical User Interface (GUI) that provides a real-life representation of all installed eWorX SE300 Series switches, displaying device functions, port settings, device status information and traffic statistics via SNMP.

iView<sup>2</sup> can also configure eWorX SE300 series switches monitoring capabilities for automation applications via the popular Modbus TCP/IP protocol. Control engineers can use existing HMI/SCADA software to integrate the network status by creating extra tags for real-time monitoring. iView<sup>2</sup> is a standalone software that supports multiple platforms and operating systems.

### iView<sup>2</sup> Features for eWorX SE300 series Switches

#### Monitoring:

- System information (IP/MAC address)
- Port status
- Port speed
- Flow control
- Link up counter
- TX packets counter, RX packets counter
- TX error packets counter, RX error packets counter
- Firmware version
- PoE status (PoE model/s only)

#### Management:

- Configure IP mode
- Set IP address
- Set TCP Modbus/TCP time-out
- Create Community Strings
- Configure Traps

### Specifications

| COMMUNICATIONS        |   |
|-----------------------|---|
| Standards             | IEEE 802.3, 802.3u, 802.3x, 802.3ab, 802.3z, 802.1p, 802.3az  |
| LAN                   | 10/100/1000Base-T(X), Optional 100Base-FX, 1000Base-SX/LX/LHX/XD/ZX/EZX   |
| Transmission Distance | Ethernet: 100m<br>(4-wire Cat.5e, Cat.6 RJ-45 cable suggested for Gigabit port)<br>SFP: 110km (depends on SFP)  |
| Transmission Speed    | Ethernet: 10/100Mbps Auto-Negotiation<br>Gigabit Copper: 10/100/1000Mbps, Auto-Negotiation<br>Gigabit Fiber: Up to 1000Mbps                                     |
| INTERFACE             |   |
| Connectors            | SEC310-2SFP-T: 8 x RJ45 + 2 x (RJ45/SFP) combo ports<br>SEC318-2SFP-T: 16 x RJ45 + 2 x (RJ45/SFP) combo ports<br>6-pin removable screw terminal (power & relay) |
| Ethernet              | Auto Sensing, 10/100/1000BaseTX, Duplex and MDIX.   |
| LED Indicators        | P1, P2, P-Fail, Loop Detection<br>10/100T(X): Link/Activity, Speed<br>Gigabit Copper: Link/Activity, Speed (1000 Mbps)<br>SFP: Link/Activity                    |

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## Specifications - continued

| SWITCH PROPERTIES           |  |
|-----------------------------|--|
| MAC Table Size              | 8k   |
| Packet Buffer Size          | 4.1M bit   |
| Switching Capacity          | SEC310-2SFP-T: 5.6 Gbps. SEC318-2SFP-T: 7.2 Gbps   |
| Jumbo Frame                 | 9126 bytes   |
| POWER                       |  |
| Power Consumption           | SEC310-2SFP-T: Max. 5.8W. SEC318-2SFP-T: Max. 8.2W |
| Power Input                 | 12~48 VDC (8.4~52.8VDC) redundant dual inputs      |
| Fault Output                | 1 Relay Output                                     |
| Reverse Polarity Protection | Present  |
| Overload Current            | Present  |
| PHYSICAL                    |  |
| Dimensions (WxHxD)          | 74 x 120 x 84 mm                                   |
| Enclosure                   | IP30, metal shell with solid mounting kits         |
| Mounting                    | DIN-Rail, Wall                                     |

## Specifications - continued

| ENVIRONMENT            |  |
|------------------------|--|
| Operating Temperature  | -40 ~ 75°C (-40 ~ 167°F)   |
| Storage Temperature    | -40 ~ 85°C (-40 ~ 185°F)   |
| Operating Humidity     | 10 ~ 95% (non-condensing)  |
| Storage Humidity       | 10 ~ 95% (non-condensing)  |
| MTBF                   | SEC310-2SFP-T: 3,183,604 hours<br>SEC318-2SFP-T: 2,825,281 hours   |
| CERTIFICATIONS         |  |
| Hazardous Environments | UL Class 1 Division 2 Groups A,B,C,D; ATEX Zone 2 (pending); IECEx (pending)   |
| Safety                 | UL508  |
| EMI                    | FCC Part 15 Subpart B Class A, EN 55011/55022, Class A   |
| EMS                    | EN 61000-4-2 (Level 3), EN 61000-4-3 (Level 3)<br>EN 61000-4-4 (Level 3), EN 61000-4-5 (Level 3)<br>EN 61000-4-6 (Level 3), EN 61000-4-8 (Level 3) |
| Shock                  | IEC 60068-2-27   |
| Freefall               | IEC 60068-2-32   |
| Vibration              | IEC 60068-2-6  |

## SOFTWARE

|                     |  |
|---------------------|--|
| Management          | iView <sup>2</sup> , LLDP, SNMP v1/v2c, Modbus/TCP   |
| Configuration       | Static IP address, DHCP Client   |
| Monitoring          | Port Statistics (Speed/Status), Link Up/Down counter, Error Packet counter, Loop detection   |
| Filter              | Flow control, IEEE 802.1p QoS(Strict mode), Broadcast storm protection   |
| Industrial Profiles | Modbus/TCP profiles included - Configuration and Diagnostic via automation software tools like e.g. Wonderware InTouch, STEP7, InduSoft Web Studio |

## IVIEW<sup>2</sup> - NETWORK MANAGEMENT SOFTWARE - FREE DOWNLOAD

|                 |  |
|-----------------|--|
| Version         | iView <sup>2</sup> Web-based Application                           |
| OS Support      | 32-bit/64-bit Windows XP/Vista/7, Windows Server 2003/2008/2008 R2 |
| Operation Modes | Local Computer or Remote Server                                    |
| Web Browser     | Microsoft® IE, Chrome, Firefox                                     |
| Protocol        | SNMPv1 and SNMPv2c   |

## Product Ordering Information

| MODEL #       | DESCRIPTION   | OPERATING TEMPERATURE | RJ45        |         |       | FIBER            |  |   | TYPE | CONNECTOR |
|---------------|---|-----------------------|-------------|---------|-------|------------------|--|---|------|-----------|
|               |   |                       | 10/100 MBPS | GIGABIT | 100FX | 100/1000BASE-SFP | COMBO PORT,<br>10/100/1000BASE-T(X)<br>OR 100/1000BASE-SFP |   |      |           |
| SEC310-2SFP-T | 8-port 10/100Mbps + 2-port GbE Combo Monitored Ethernet Switch  | -40~75°C              | 8           | -       | -     | -                | -  | 2 | -    | LC (SFP)  |
| SEC318-2SFP-T | 16-port 10/100Mbps + 2-port GbE Combo Monitored Ethernet Switch | -40~75°C              | 16          | -       | -     | -                | -  | 2 | -    | LC (SFP)  |

## Accessories - optional

| MODEL #   | DESCRIPTION   |
|-----------|---|
| MDR-40-24 | DIN Rail Power supply, 24VDC 40 Watt                        |
| CSUMB3FBG | 3 ft. (1 M), Gray, Category 5e UTP Patch Cord               |
| CSUMB7FBG | 7 ft. (2 M), Gray, Category 5e UTP Patch Cord               |
| 808-38102 | IE-SFP 100 to 155 Mbps (OC-3), MM850-LC, 2km                |
| 808-38104 | IE-SFP 100 to 155 Mbps (OC-3), SM1310/PLUS-LC, 40km         |
| 808-38200 | IE-SFP 1250 Mbps to 1.25 Gbps (OC-24), SM1310-LC, 20km      |
| 808-38201 | IE-SFP 1250 Mbps to 1.25 Gbps (OC-24), MM850-LC, 2250/550m  |
| 808-38203 | IE-SFP 1250 Mbps to 1.25 Gbps (OC-24), SM1310/PLUS-LC, 30km |

## Package Checklist

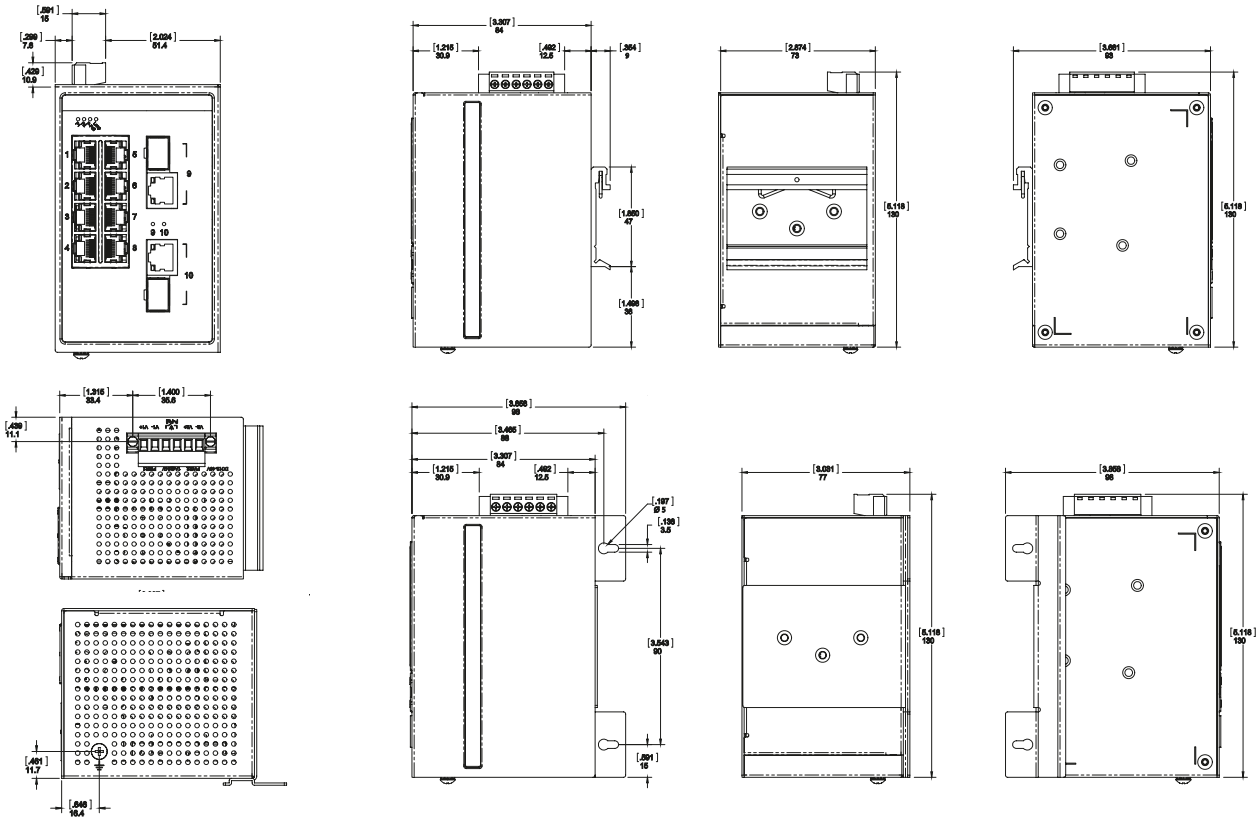
Ethernet Switch, Quick Start Guide, DIN-Rail mount bracket (installed), Wall mount bracket

## Warranty

Limited lifetime warranty for Advantech B+B designed and/or manufactured products.

## Model SEC310-2SFP-T Mechanical Diagram | DIN Rail & Wall Mount Options

Units = [inches] mm



## Model SEC318-2SFP-T Mechanical Diagram | DIN Rail & Wall Mount Options

Units = [inches] mm

