# Monitored Ethernet Switches
## 10 & 18 port, SNMP, Modbus/TCP

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

**B+B SMARTWORX**

Powered by **ADVANTECH**

SEC310-2SFP-T

SEC318-2SFP-T

**eworx**

**Modbus** **SNMP**

RoHS COMPLIANT  CE  FCC  UL

### Features & Benefits

- Communicates with HMI/SCADA software via Modbus/TCP
- Integrated with iView[2]™ - 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[2] 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[2], 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[2] 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[2] 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[2] is a standalone software that supports multiple platforms and operating systems.

### iView[2] 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 (4-wire Cat.5e, Cat.6 RJ-45 cable suggested for Gigabit port) SFP: 110km (depends on SFP) |
| Transmission Speed | Ethernet: 10/100Mbps Auto-Negotiation Gigabit Copper: 10/100/1000Mbps, Auto-Negotiation Gigabit Fiber: Up to 1000Mbps |
| INTERFACE | |
| Connectors | SEC310-2SFP-T: 8 x RJ45 + 2 x (RJ45/SFP) combo ports SEC318-2SFP-T: 16 x RJ45 + 2 x (RJ45/SFP) combo ports 6-pin removable screw terminal (power & relay) |
| Ethernet | Auto Sensing, 10/100/1000BaseTX, Duplex and MDIX. |
| LED Indicators | P1, P2, P-Fail, Loop Detection 10/100T(X): Link/Activity, Speed Gigabit Copper: Link/Activity, Speed (1000 Mbps) SFP: Link/Activity |

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All product specifications are subject to change without notice.
SEC310-2SFP-T & SEC318-2SFP-T_2016

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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 (8.4~52.8 VDC) 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℃ (-40 ~ 167°F) |
| Storage Temperature | -40 ~ 85℃ (-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[2], 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[2] - NETWORK MANAGEMENT SOFTWARE - FREE DOWNLOAD | |
|---|---|
| Version | iView[2]  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 | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | 10/100 MBPS | GIGABIT | 100FX | 100/1000BASE-SFP | COMBO PORT, 10/100/1000BASE-T(X) OR 100/1000BASE-SFP | TYPE | CONNECTOR |
| SEC310-2SFP-T | 8-port 10/100Mbps + 2-port GbE Combo Monitored Ethernet Switch | -40~75℃ | 8 | - | - | - | 2 | - | LC (SFP) |
| SEC318-2SFP-T | 16-port 10/100Mbps + 2-port GbE Combo Monitored Ethernet Switch | -40~75℃ | 16 | - | - | - | 2 | - | LC (SFP) |

## Accessories - optional

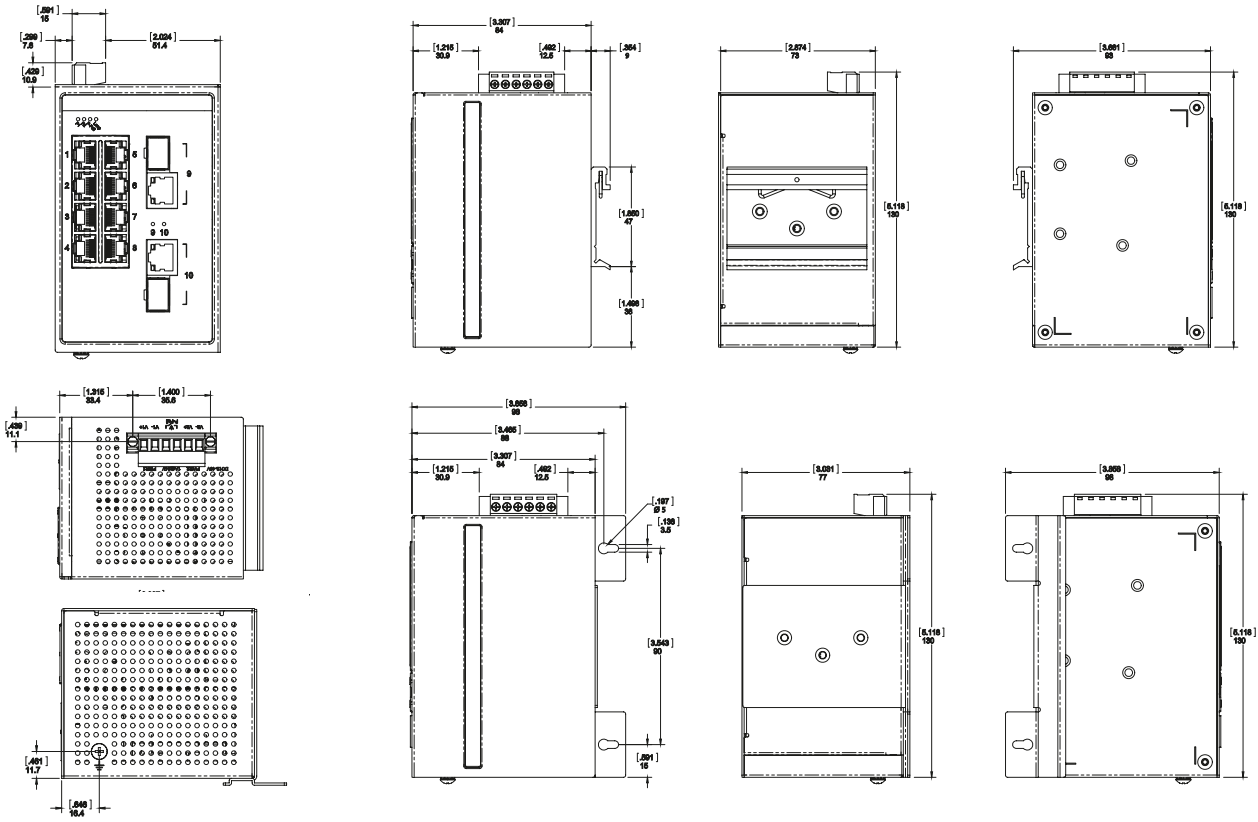| MODEL # | DESCRIPTION |
|---|---|
| MDR-40-24 | DIN Rail Power supply, 24VDC 40 Watt |
| C5UMB3FBG | 3 ft. (1 M), Gray, Category 5e UTP Patch Cord |
| C5UMB7FBG | 7 ft. (2 M), Gray, Category 5e UTP Patch Cord |
| 808-38102 | IE-SFP 100 to 155 Mbps (OC-3), MM850-LC, 2km |
| 808-38104 | IE-SFP 100 to 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.

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# 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