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PRODUCT INFORMATION

ESW500 Series
Industrial Managed Ethernet Switches

Features

- ✓ Light industrial design EN61000-6-1 specifications
- ✓ Shock and Vibration Tested
- ✓ -10 to 60°C or -40 to 75°C (-T models) temperature rating
- ✓ Supports IEEE 802.3 10Base-T,802.3u 100Base-TX
- ✓ RJ-45 port supports auto MDI/MDI-X function
- ✓ SC Single mode and Multi mode fiber connectors
- ✓ Gigabit options with copper and SFP combo ports
- ✓ Web Browser Management and Configuration
- ✓ RingOn redundant rapid recovery system
- ✓ Rapid Spanning Tree Protocol recover system
- ✓ IGMP with Query mode for multimedia application
- ✓ Port based VLAN / 802.1 Q Tag VLAN
- ✓ Relay alarm output for system events
- ✓ Port mirroring for diagnostics
- ✓ 256K bytes packet buffer
- ✓ 8k MAC address table
- ✓ 12 to 36 VDC power input (All Models)
- ✓ 10 to 24 VAC (ESW508, ESW516 Models)
- ✓ 100% burn in testing

E-LINX™ Industrial Ethernet Switch

Functional Description

B&B Electronics Elinx family of Managed Industrial Din Rail mount Ethernet switches have been designed to meet light Industrial and commercial communication requirements.

The ESW500 Managed Series offers a variety of Industrial models. The switch configurations range from 8 ports to 16 ports with all RJ45 copper to RJ45 copper with multi mode, single mode, and or SFP gigabit ports.

Two ports can be used for network redundancy by implementing our RingOn technology. RingOn has been developed to provide a rapid recovery system for Industrial networks. If any part of the ring disconnects the network communications will automatically be restored by RingOn technology.

Web-based Management
Each switch has an embedded HTML web site residing in flash memory, offering advanced management features and allows users to manage the switch from anywhere on the network through a standard web browser.

VLAN Configuration
A Virtual LAN (VLAN) is a logical network grouping that limits the broadcast domain. This allows you to isolate network traffic so that members of a VLAN will only receive traffic from other members of the same VLAN. Creating a VLAN from a switch is the logical equivalent of reconnecting a group of network devices to another Layer 2 switch. However, since it is a virtual network, the network devices remain connected to the same switch physically. Both port-based and 802.1Q (tagged-based) VLAN are supported.

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IGMP
The Internet Group Management Protocol (IGMP) is a communications protocol used to manage the membership of Internet Protocol multicast groups. IGMP is used by IP hosts to establish multicast group memberships. This allows the port to detect IGMP query and report packets and manage IP multicast traffic through the switch.

Standards and Managed Protocols
- Web browser management
- IEEE802.1D STP
- IEEE802.1W RSTP
- RingOn™:Recovery Time within 15ms
- IEEE802.1p Class of Service
- IEEE802.1Q VLAN Tagging
- IEEE802.1ad Port Trunk with LACP
- IEEE802.1x Port-Based Access Control
- Protocols:
    - SNMP V1/V2/V3
    - DHCP Server
    - SNTP
    - SMTP
    - IGMP Snooping/GMRP
    - LACP
    - RMON
    - HTTPS
    - Telnet
    - Syslog
    - HTTP
- Priority Queues: 4
- IGMP Groups: 64
- Maximum VLANs: 256

Ordering Information:

Model	10/100	10/100/1000	SFP 1000	Multi-mode Fiber	Single-mode Fiber	Temperature
ESW508	8					-10 to 60°C
ESW508-2MC	6			2 (SC)		-10 to 60°C
ESW508-2SC	6				2 (SC)	-10 to 60°C
ESW516	16					-10 to 60°C
ESW508-T	8					-40 to 75°C
ESW508-2MC-T	6			2 (SC)		-40 to 75°C
ESW508-2SC-T	6				2 (SC)	-40 to 75°C
ESW516-T	16					-40 to 75°C
ESW516-4MC-T	12			4 (SC)		-40 to 75°C
ESW516-4SC-T	12				4 (SC)	-40 to 75°C
ESWG510-2SFP-T	8	(2)	(2)			-40 to 75°C
ESWG510-2MC-2SFP-T	6	(2)	(2)	2 (SC)		-40 to 75°C
ESWG510-2SC-2SFP-T	6	(2)	(2)		2 (SC)	-40 to 75°C

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Accessories

Model No.	Description
MDR-60-24	24VDC 60W Single Output Industrial DIN Rail Power Supply
C5UMB3FBG	Ethernet Category 5e patch cord, 3 ft. (0.9m), beige
C5UMB7FBG	Ethernet Category 5e patch cord, 7 ft. (0.9m), beige
SFP-1000SX-M-550M-T	SFP Module, 1000Base-SX, Multi-mode 550m, LC Connector (-40 to 85°C)
SFP-1000LX-S-10KM-T	SFP Module, 1000Base-LX, Single-mode 10km, LC Connector (-40 to 85°C)
SFP-1000LX-S-20KM-T	SFP Module, 1000Base-LX, Single-mode 20km, LC Connector (-40 to 85°C)

Specification:

Technology

Standards:	IEEE802.3, 802.3u,802.3ab,802.3z, 802.3x
Processing Type:	Store and forward with IEEE802.3x full duplex, non-blocking flow control
Flow Control:	IEEE802.3x flow control, back pressure flow control
Packet buffer memory:	256 K bytes
Address Table Size	8K MAC Addresses

Interface

RJ45 Ports:	10/100BaseT(x) auto negation, Full/Half duplex, auto MDI/MDI-connection
Fiber Ports:	100BaseFX ports (multi-mode or single-mode with SC connector) Mini-GBIC SFP Combo Ports
LED Indicators:	Power, Link, Speed, System Status

Fiber Optics

Fiber Type	Distance	Wavelength	Output Power	Sensitivity
Multi-mode	2 km	1310 nm	⁻20 to ⁻14 dBm	≤ - 33.9 dBm
Single mode	20 km	1310 nm	⁻15 to ⁻14 dBm	≤ - 31 dBm

Power

Input Voltage	18 to 36 VDC (All Models) 10 to 24 VAC (ESW508, ESW516 Models)
Power Use	20W Max
Input Connection	Terminal Block
Protection	Reverse Polarity Protection

Environmental

Op. Temperature	-10 to 60C or -40 to 75C
Storage Temperature	-40 to 80 °C
Op. Humidity	0 to 95% Non-condensing
MTBF	200,000 hours

Mechanical

Enclosure	IP 30 Metal
Dimensions	See drawings
Installation:	Din-rail and Panel mount

Regulatory Approvals

CE, FCC,
RoHS - Yes

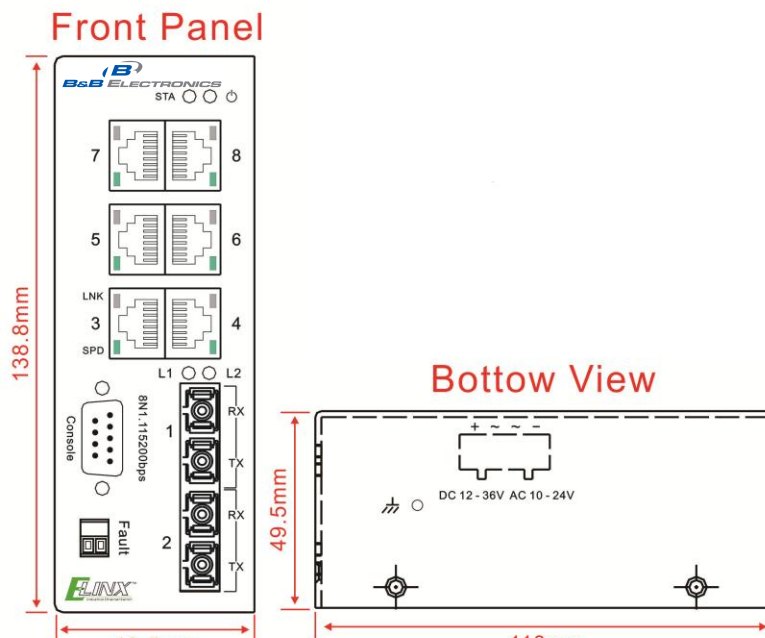### Specifications - EN 61000-6-1: 2006 Generic Standards for Commercial, Light Industrial environments

Test	Description	Test Level		Level
EN 55022: 2006 + A1:2007	Class B Emissions			
EN 61000-4-2: 2009	Electro-Static Discharge (ESD)	Enclosure Contact	6kV	3
		Enclosure Air	8kV	3
EN61000-4-3:2006+A1:2008	Radiated Field Immunity (RFI)	Enclosure Ports	10V/m	3
EN61000-4-4:2004	Burst (Fast Transient)	Signal Ports	0.5kV@2.5Khz	2
		DC Ports	1kV	2
EN61000-4-5:2006	Surge	Signal Ports	1kV	3
		DC Power Ports	2kV	3
EN61000-4-6: 2009	Induced (Conductive) RFI	Signal Ports	10 V RMS	3
		DC Power Ports	10 V RMS	3

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Environmental Specifications

Test	Description	Test Level		Level
IEC60068-2-6	Vibration	Test Fc	2G	-----
IEC60068-2-27	Shock	Test Ea	30G	-----
Operating Temperature	Standard	-10 to 60C	14 to 140F	
	Wide Operating Temperature (- T models)	-40 to 75C	-40 to 167F	
Storage Temperature		-40 to 80C	-40 to 176F	
Humidity		10 to 95% Non-condensing		

Mechanical

ESW508

ESW510

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ESW516

Front Panel

STA

LNK
13   14
SPD

11   12

9   10

RX
16
TX

RX
15
TX

L16   L15

7   8

5   6

3   4

1   2

Fault

149.1mm

70.4mm

Bottow View

DC 12 - 36V AC 10 - 24V
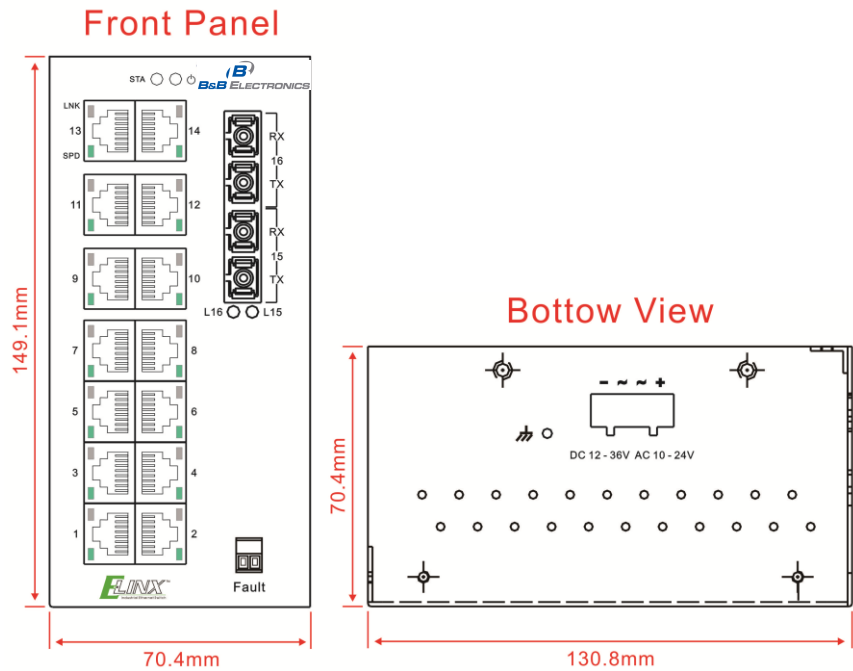
70.4mm

130.8mm

PRODUCT INFORMATION
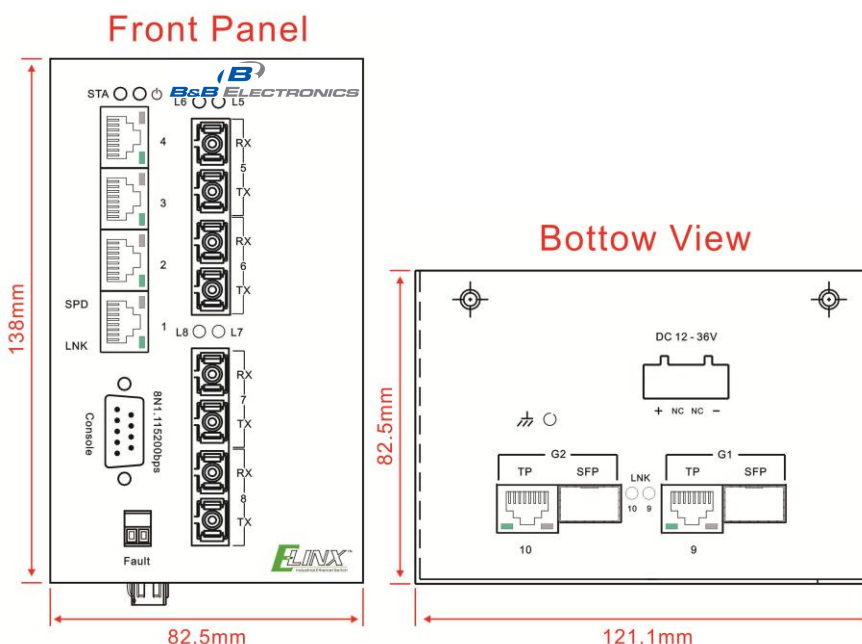
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[B+B SmartWorx]():
  [ESW508-2SC]() [ESW516-4SC-T]()