



ED6008 Model Series
Ethernet Switches
Industrial Grade Managed Ethernet
to Fiber Switching Devices

Overview

As the world's network and information technology becomes more and more mature, the industrial communications and automation industry is following the trend of using Ethernet as the primary communications interface. However, the commercial Ethernet equipment available in today's market simply cannot meet the high reliability requirements demanded by industrial applications. For example, a 3-minute communication failure in the office might be passed off as a minor inconvenience, whereas in an industrial setting, the same 3 minutes could cause a tremendous loss in investment.

These Ethernet switches establish a new Industrial Ethernet benchmark with its combination of state-of-the-art Ethernet switching technology and suite of useful maintenance and monitoring functions, making these switches:

- Excellent for keeping automation systems running continuously
- Ideal for sending status reports to help prevent system damages and losses
- A great tool for mastering complex industrial Ethernet networks
- Well-suited for use with industrial device control networks

Future-proof your investment with ultimate reliability and informative management functions!

Features

Excellent for keeping automation systems running continuously:

- Line-swap fast recovery (patent pending)
- Redundant Ethernet Ring capability
- Redundant power inputs
- Watch-dog self-saver™
- High MTBF of over 77,500 hours
- Hardened design for harsh environments
- 32-140°F (0 - 60°C) for cold and hot climates (-T models range from -40 to +75°C)
- IP 30, rugged high-strength case
- DIN-rail or panel mounting ability

Dynamically know the status of networked industrial devices:

- Automatically sends warning e-mail when an exception is detected
- Automatically sends warning e-mail when Ethernet traffic builds up
- Signals the system administrator via a Digital Output (DO) line when a malfunction occurs

Key management functions let you easily master your industrial Ethernet network;

- Set up a mirroring port for better online data monitoring
- Assign IP addresses to connected devices
- Send *ping* commands to identify network segment integrity
- Easily test cable wiring

Benefits

- Prevent critical losses by keeping your automation system running continuously
- Control and maintenance functions are ideally suited for field applications
- Hardened industrial design works reliably in harsh environments
- Reduces maintenance personnel's on-site tasks



International Headquarters: 707 Dayton Road PO Box 1040 Ottawa, IL 61350 USA
 815-433-5100 Fax 433-5104 www.bb-elec.com orders@bb-elec.com support@bb-elec.com

European Headquarters: Westlink Commercial Park Oranmore Co. Galway Ireland
 +353 91 792444 Fax +353 91 792445 www.bb-europe.com orders@bb-elec.com support@bb-europe.com

Applications

Industrial/Factory Automation
 Automotive
 Chemical
 Food and Beverage
 Marine
 Metals and Mining
 Government/Military
 Oil and Gas
 Paper Production
 Pharmaceutical
 Power and Energy
 Textile Manufacturing
 Traffic Control
 Wastewater Treatment

**Specifications**

Interface
 RJ45 Ports 10/100BaseT(X) auto negotiation speed, F/H duplex mode, and auto MDI/MDI-X connection
 Fiber Ports 100BaseFX ports (SC connector)
 Console RS-232 (RJ45)
 LED Indicators Power, Faults, ACT, LNK, 10/100
 Alarm Contact One relay output with current carrying capacity of 1A @ 24 VDC

Technology

Standards IEEE802.3, 802.3u, 802.3x, 802.1D
 Forward and Filtering Rate 148810 pps
 Packet Buffer Memory 256 KB
 Processing Type Store and Forward, with IEEE802.3x full duplex, non-blocking flow control
 Address Table Size 4K uni-cast addresses
 Latency Less than 5 μ s
 Management SNMP V1. 2c, MIB-II, Ethernet-like MIB, OPC Server (future release)

Optical Fiber

Distance Single mode fiber for 15 km, Multi mode fiber for 2 km
 Wavelength 1310 nm
 Min. TX Output -15 dBm (Single), -19 dBm (Multi)
 Max. TX Output -8 dBm (Single), -14 dBm (Multi)
 Sensitivity -36.4 dBm (Single), -35.2 dBm (Multi)
 Power Budget -9.5 dBm (Single), -16.1 dBm (Multi)

Power

Input Voltage 9 to 32 VDC, redundant inputs
 Input Current (@24V) 0.35A: (ED6008)
 0.45A: (ED6008-M-SC, ED6008-S-SC)
 0.55A: (ED6008-MM-SC, ED6008-SS-SC)

Connection Removable Terminal Block
 (maximum cable diameter = 1.5 mm)
 Overload current protection Present, can withstand 2.5A
 Reverse polarity protection Present

Mechanical

Casing IP30 protection, aluminum case
 Dimensions 2.0 W x 5.4 H x 4.0 D in (5.2 x 13.7 x 10.1 cm)
 Installation DIN rail, wall mounting

Environment

Ambient Temperature 32 to 140°F (0 to 60°C). -T models range from -40 to +75°C
 Storage Temperature -40 to 185°F (-40 to 85°C)
 Ambient Relative Humidity 10 to 95% (non-condensing)

B&B electronics
 MANUFACTURING COMPANY

International Headquarters: 707 Dayton Road PO Box 1040 Ottawa, IL 61350 USA
 815-433-5100 Fax 433-5104 www.bb-elec.com orders@bb-elec.com support@bb-elec.com

European Headquarters: Westlink Commercial Park Oranmore Co. Galway Ireland
 +353 91 792444 Fax +353 91 792445 www.bb-europe.com orders@bb-elec.com support@bb-europe.com

Regulatory Approval

| | |
|---|-------------------------------|
| Class I, Div 2 (Zone 2) Hazardous Locations | |
| UL/CUL | UL-1950 |
| TÜV | EN60950 |
| FCC | Part 15 Class A |
| CE | EMI: EN55022 |
| | EMS: EN61000-4-2(ESD) |
| | EN61000-4-3(RS) |
| | EN61000-4-4(EFT) |
| | EN61000-4-5(SURGE) |
| | EN61000-4-6(CS) |
| | EN61000-4-8(PM) |
| | EN61000-4-12(DIP) |
| Laser Protection | Class 1 complies with EN60825 |
| Shock | IEC 60068-2-27 |
| Free fall | IEC 60068-2-32 |
| Vibration | IEC 60068-2-6 |
| MTBF | 77,500 hours |

Model: Description:

| | |
|--------------|---|
| ED6008 | Ethernet Switch with 8 10/100Base Tx ports |
| ED6008-M-SC | Ethernet Switch with 7 10/100Base Tx ports, 1 multi mode (2km) 100Base FX port |
| ED6008-S-SC | Ethernet Switch with 7 10/100Base Tx ports, 1 single mode (15km) 100Base FX port |
| ED6008-MM-SC | Ethernet Switch with 6 10/100Base Tx ports, 2 multi mode (2km) 100Base FX ports |
| ED6008-SS-SC | Ethernet Switch with 6 10/100Base Tx ports, 2 single mode (15km) 100Base FX ports |

Wide Temperature models (-40 to +75°C):

| | |
|----------------|---|
| ED6008-T | Ethernet Switch with 8 10/100Base Tx ports |
| ED6008-M-SC-T | Ethernet Switch with 7 10/100Base Tx ports, 1 multi mode (2km) 100Base FX port |
| ED6008-S-SC-T | Ethernet Switch with 7 10/100Base Tx ports, 1 single mode (15km) 100Base FX port |
| ED6008-MM-SC-T | Ethernet Switch with 6 10/100Base Tx ports, 2 multi mode (2km) 100Base FX ports |
| ED6008-SS-SC-T | Ethernet Switch with 6 10/100Base Tx ports, 2 single mode (15km) 100Base FX ports |

NOTE: All models include a user's manual & certification documents.



International Headquarters: 707 Dayton Road PO Box 1040 Ottawa, IL 61350 USA
815-433-5100 Fax 433-5104 www.bb-elec.com orders@bb-elec.com support@bb-elec.com

European Headquarters: Westlink Commercial Park Oranmore Co. Galway Ireland
+353 91 792444 Fax +353 91 792445 www.bb-europe.com orders@bb-elec.com support@bb-europe.com