



Model: ENHSAURR8 Ethernet Machine Mount Switch

Overview

Ethernet networks consist of a star topology—all transmissions pass through a central device. The repeater hub is the simplest form of such a device, but has limitations in industrial applications:

- If more than one Ethernet device transmits at the same time, a data collision will occur, forcing each station to retransmit in order to deliver its message.
- Hubs must transmit messages from all ports to reach the intended receiver, creating inefficient bandwidth usage.

Ethernet switches, however, allow all devices to transmit simultaneously, without collision. This is essential for enabling deterministic delivery of time-critical information. Switches are intelligent devices, keeping track of device locations. This allows messages to be transmitted only from the necessary port, leading to improved network performance.

Introduction

The ENHSAURR8 is an 8-port switch designed to operate without the need for any type of enclosure. The device can be mounted anywhere (side of a machine, building pillar, on an oil rig), providing for network design flexibility.

- IEC IP67 Rating, when used with RJ-Lnxx cord sets, prevents contamination from dirt, oil & water.
- Unsurpassed temperature operating range (-40° to 80° C) allows use in both the hottest and coldest conditions, without the need for environmental controls.
- Class I/Div 2 rated for use in hazardous environments.
- Store & forward switch with address auto-learning and 10/100 auto-negotiation enhances bandwidth efficiency, aiding determinism for control applications.
- No programming required, allowing the switch to be installed and carrying data in minutes.

Features

- Extended Temperature Ranges
- Environmental Sealing
- Vibration Resistance
- Industrial Mounting Methods
- Hazardous Duty Ratings

Specifications

Electrical

Required Power: 10-30V DC
 Power Consumption: 1.9 Watts Typical
 Network Isolation: 1200V RMS for 1 min.

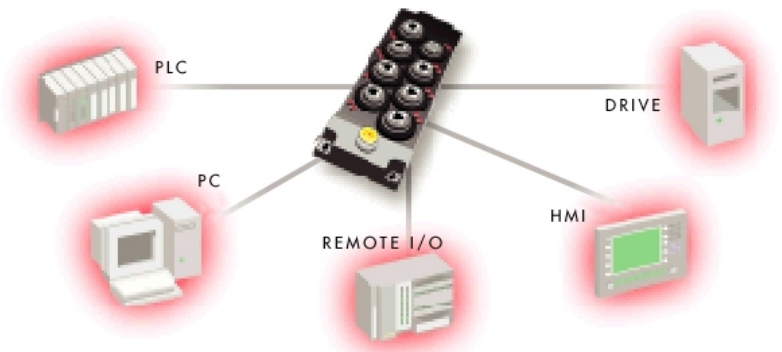
Environmental/Mechanical

Operating Temp.: -40° - 176° F (-40° - 80° C)
 Humidity: 5 to 95% (non-condensing)
 Power Connection: 4-pole mini-change connector
 Environmental Rating: IP67 when mated with an RJ-Lnxx sealed connector
 Electrical Safety: UL 508
 Hazardous Location: UL 1604, CSA 22.2/213 (Class 1, Div.2)
 EMI Emissions: FCC Part 15, Class B
 EMC Immunity: EN61326-1
 Vibration: IEC68-2-6

Network

Ports: Eight 10/100 Base-T(x), Shielded RJ-45
 Ethernet Standards: IEEE 802.3, 802.3U, 802.3X
 Ethernet Protocols: All standard IEEE 802.3 protocols
 Speed per Port: 10 or 100Mbps (half-duplex); 20 or 200Mbps (full-duplex)
 Buffers: 1024, 128 byte buffers available
 Broadcast Storm Protection: Broadcasts limited to 25% of available bandwidth
 Flow Control: Supported for both transmit and receive
 Back Pressure Function: Inhibit stations from transmitting for 20ms, if buffers are full
 Total Bandwidth: 1.4Gbps

ENHSAURR8.....Active Switch-Machine Mount, Unmanaged, RJ-45 Uplink Port, 8 Ports
104001A01F030.....Power or control single-ended cord set. UL94, 4-pole, 90° female, 3 ft.
104001A01F060.....Power or control single-ended cord set. UL94, 4-pole, 90° female, 6 ft.



International Headquarters:

B&B Electronics Mfg. Co. 707 Dayton Road P.O. Box 1040 Ottawa, IL 61350 USA
 815-433-5100 Fax 433-5104 www.bb-elec.com orders@bb-elec.com support@bb-elec.com

B&B Electronics Ltd 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