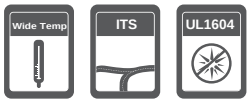
EX94000 Series

Unmanaged Hardened 5/8 ports 10/100BASE-TX Ethernet Switch

Overview



The EX94000 series is designed to operate in harsh environments. The EX94000 functions at temperatures ranging from -40°C to 75°C (-40°F to 167°F) and is tested for functional operation @ -40°C to 85°C (-40°F to 185°F). Whether on the factory floor or the street curb, the EX94000 provides flawless communications when you most need it most. The EX94000 is with flexibility of five or eight Ethernet ports that may be configured in various combinations of copper and fiber optic interfaces. The EX94000 may be DIN rail or Panel mounted, and comes with power options.

Features

- Complies with NEMA TS1 & TS2 Environmental requirements for Traffic control equipment
- Complies with IEC61000-6-2 EMC Generic standard immunity for Industrial environment
- UL1604 Class 1, Division 2 Classified for use in hazardous locations
- 10/100Mbps-Full/Half-duplex, Auto-Negotiation, Auto-MDI/MDIX
- Full wire-speed forwarding rate
- Alarms for power and port link failure by relay output
- Redundant power inputs with Terminal Block or DC Jack
- -40°C to 75°C (-40°F to 167°F) operating temperature range

Ordering Information

EX94008-00-I-P	8-port 10/100BASE-TX Hardened Unmanaged Ethernet Switch
EX94018-XY-I-P	8-port 10/100BASE-TX + 1-port 100BASE-FX Hardened Unmanaged Ethernet Switch
EX94026-XY-I-P	6-port 10/100BASE-TX + 2-port 100BASE-FX Hardened Unmanaged Ethernet Switch
EX94044-XY-I-P	4-port 10/100BASE-TX + 4-port 100BASE-FX Hardened Unmanaged Ethernet Switch
EX94005-00-I-P	5-port 10/100BASE-TX Hardened Unmanaged Ethernet Switch
EX94014-XY-I-P	4-port 10/100BASE-TX + 1-port 100BASE-FX Hardened Unmanaged Ethernet Switch
EX94024-XY-I-P	4-port 10/100BASE-TX + 2-port 100BASE-FX Hardened Unmanaged Ethernet Switch

100FX Fiber Options:

(XY) = 1A : Multi Mode (SC)
1B : Multi Mode (ST)
2A : Single Mode (SC) -20Km
2B : Single Mode (SC) -40Km
2D : Single Mode (ST) -20Km
1H : Multi Mode (SC) WDM -TX: 1310nm/RX:1550nm -2Km
1J : Multi Mode (SC) WDM -TX: 1310nm/RX:1550nm -5Km
2E : Single Mode (SC) WDM -TX:1310nm/RX:1550nm -20Km
2F : Single Mode (SC) WDM -TX:1310nm/RX:1550nm -40Km
1I : Multi Mode (SC) WDM -TX: 1550nm/RX:1310nm -2Km
1K : Multi Mode (SC) WDM -TX: 1550nm/RX:1310nm 5Km
2G : Single Mode (SC) WDM -TX:1550nm/RX:1310nm -20Km
2H : Single Mode (SC) WDM -TX:1550nm/RX:1310nm -40Km

*More 100FX Fiber options also available upon request.

Installation Type:

(I) = 1 : DIN Rail (mounting kit is included)
Optional Panel mount kit, part number: KP-AA96-480

Power Connector Options :

(P) = A : Terminal Block* / B : DC Jack**
*Option A - The Terminal Block type external power supply are not included. Please order the following part numbers, as required: DR-30-24, DR-60-24, DR-75-24, DR-120-24 or 41-136046-X X=1,2,3,4,
**Option B - The external power adapter and power cord are not included. Please order the following part numbers, as required: 41-136044-X X=1,2,3,4,5

*See page 5-9 to 5-16 for more detailed information about optional accessories (Din-Rail Power supply, Power adapter)

Specifications

Technology

Standards:
- IEEE802.3 10BASE-T, IEEE802.3u 100BASE-TX/100BASE-FX, IEEE802.3x

Forward and Filtering Rate:
- 14,880pps for 10Mbps
- 148,810pps for 100Mbps

Packet Buffer Memory:
- 768K bits

Processing Type:
- Store-and-Forward
- Half-duplex back-pressure and IEEE802.3x full-duplex flow control

Address Table Size:
- 2048 MAC addresses

Latency:
- Less than 7.1μs

Power

Input:
- Input Voltage: 12 to 48VDC (Terminal Block); 12VDC (DC Jack)

Power Consumption:
- 9.12W Max. 0.76A@12VDC, 0.38A@24VDC, 0.19A@48VDC

Overload Current Protection:
- Present

Reverse Polarity Protection:
- Present

Mechanical

Casing:
- Aluminum case
- IP30

Dimensions:
- 50mm (W) x 110mm (D) x 135mm (H)
  (1.97" (W) x 4.33" (D) x 5.31" (H))

Weight:
- 0.8Kg (1.76lbs.)

Installation:
- DIN-Rail (Top hat type 35mm), Panel Mounting

Interface

Ethernet Port:
- 10/100BASE-TX: 8, 6, 5 or 4 ports
- 100BASE-FX: 0, 1, 2 or 4 ports

LED Indicators:
- Per Unit: Power Status (Power 1, Power 2, Fault)
- Per Port: 10/100TX, 100FX: Link/Activity (Green), Speed (Yellow)

Alarm Contact:
- One relay output with current 1A@24VDC

Environment

Operating Temperature:
- -40°C to 75°C (-40°F to 167°F)
  Tested @ -40°C to 85°C (-40°F to 185°F)

Storage Temperature:
- -40°C to 85°C (-40°F to 185°F)

Ambient Relative Humidity:
- 5% to 95% (non-condensing)

Regulatory Approvals:

ISO:
- Manufactured in an ISO9001 facility

Safety:
- Hazardous locations: UL1604 Class1 Div.2
- UL60950-1

EMI:
- FCC Part 15, Class A
- EN61000-6-3
  - EN55022
  - EN61000-3-2
  - EN61000-3-3

EMS:
- EN61000-6-2
  - EN61000-4-2 (ESD Standards)
    Contact: + / - 4KV; Criteria B
    Air: + / - 8KV; Criteria B
  - EN61000-4-3 (Radiated RFI Standards)
    10V/m, 80 to 1000MHz; 80% AM Criteria A
    3V/m, 1400 to 2000MHz; 80% AM Criteria A
    1V/m, 2000 to 2700MHz; 80% AM Criteria A
  - EN61000-4-4 (Burst Standards)
    Signal Ports: + / - 4KV; Criteria B
    D.C. Power Ports: + / - 4KV; Criteria B
  - EN61000-4-5 (Surge Standards)
    Signal Ports: + / - 1KV; Line-to-Line; Criteria B
    D.C. Power Ports: + / - 0.5KV; Line-to-earth; Criteria B
  - EN61000-4-6 (Induced RFI Standards)
    Signal Ports: 10Vrms @ 0.15~80MHz; 80% AM Criteria A
    D.C. Power Ports: 10Vrms @ 0.15~80MHz; 80% AM Criteria A
  - EN61000-4-8 (Magnetic Field Standards)
    30A/m @ 50, 60Hz; Criteria A

Environmental Test Compliance:
- IEC60068-2-6 Fc (Vibration Resistance)
  5g @ 10~150Hz, Amplitude 0.35mm (Operation/Storage/Transport)
- IEC60068-2-27 Ea (Shock)
  25g @ 11ms (Half-Sine Shock Pulse; Operation)
  50g @ 11ms (Half-Sine Shock Pulse; Storage/Transport)
- IEC60068-2-32 Ed (Free Fall)
  1M (3.281ft.)

Diagrams