

EX43000 Series

8-port 10/100Base Fast Ethernet Industrial Unmanaged Switches



Overview

The EX43000 series Ethernet switches are designed to operate in industrial environments at the edge of the network. On the factory floor, the EX43000 will provide flawless communications when you need it most. The EX43000 is a switch with the flexibility of eight Ethernet ports that may be configured in various combinations of copper and fiber optic interfaces. Flexibility is the main feature of the EX43000, it may be DIN rail, shelf or wall mounted, and comes with power options to match the applications that require a tough, environmentally industrial, Ethernet switch.

Features

- ▶ Complies with IEC61000-6-2 EMC Generic standard immunity for Industrial environment
- ▶ 2048 MAC addresses
- ▶ 768K bits buffer memory
- ▶ 10/100Mbps-Full/Half-duplex, Auto-Negotiation, Auto-MDI/MDIX
- ▶ Full wire-speed forwarding rate
- ▶ Alarms for power failure by relay output
- ▶ Redundant 1.5A 24VDC Power inputs or 3A 12VDC Jack
- ▶ -20°C to 60°C (-4°F to 140°F) operating temperature range
- ▶ Industrial aluminum case
- ▶ Supports DIN-Rail, Panel, or Rack Mounting installation

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: 12VDC (Power Jack); 10 to 30VDC (Terminal Block)
- Input Current: 3A Max. (Power Jack); 1.5A Max. (Terminal Block)

Power Consumption:

- 12VDC @ 0.99A, 24VDC @ 0.55A, 13.2W Max.

Mechanical

Casing:

- Aluminum case

Dimensions:

- 50mm (W) x 125mm (D) x 135mm (H)
(1.97" (W) x 4.92" (D) x 5.31" (H))

Weight:

- 0.8Kg (1.76lbs.)

Installation:

- DIN-Rail, Panel, Rack Mounting

Environment

Operating Temperature:

- -20°C to 60°C (-4°F to 140°F)

Storage Temperature:

- -40°C to 85°C (-40°F to 185°F)

Ambient Relative Humidity:

- 10% to 95% (non-condensing)

Interface

LED Indicators:

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

Alarm Contact:

- One relay output with current 1A @ 24VDC

Designation	Typical Distance*	Nominal Wavelength	Cable Type	Connector	Optical Budget
100Base-FX	2 Km	1310 nm	62.5/125 MM	ST	15 dB
100Base-FX	2 Km	1310 nm	62.5/125 MM	SC	15 dB
100Base-FX	20 Km	1310 nm	10/125 SM	SC	19 dB
10Base-T	100 m	N/A	N/A	RJ-45	N/A
100Base-TX	100 m	N/A	N/A	RJ-45	N/A

Hardened Unmanaged Switches

Ethernet
Switches

1

Serial
Servers

2

Media
Converters

3

Others

4

Regulatory Approvals:

ISO:

- Manufactured in an ISO9001 facility

Safety:

- UL 60950, EN 60950, IEC 60950, IEC 61000-6-2

Emission Compliance:

- FCC Part 15, Class A

CE Approve:

- EN55022 (CISPR22 Class A)
- EN55024 (CISPR24 Class A)

ESD Standards (IEC 61000-4-2):

- Enclosure Contact: + / - 4KV; Criteria B
- Enclosure Air: + / - 8KV; Criteria B

Radiated FRI Standards (IEC 61000-4-3):

- Enclosure Ports: 10V/m, 80 to 1000MHz; Criteria A

Burst Standards (IEC 61000-4-4):

- Enclosure Ports: + / - 4KV @ 2.5KHz; Criteria B
- D.C. Power Ports: + / - 4KV; Criteria B
- A.C. Power Ports: + / - 4KV; Criteria B

Surge Standards (IEC 61000-4-5):

- Signal Ports: + / - 1KV; Line-to-earth; Criteria B

- D.C. Power Ports: + / - 0.5KV; Line-to-earth; Criteria B
- A.C. Power Ports: + / - 2KV; Line-to-earth; Criteria B

Induced RFI Standards (IEC 61000-4-6):

- Signal Ports: 10V @ 0.15 - 80MHz; Criteria A
- D.C. Power Ports: 10V @ 0.15 - 80MHz; Criteria A
- A.C. Power Ports: 10V @ 0.15 - 80MHz; Criteria A
- Earth Ground Ports: 10V @ 0.15 - 80MHz; Criteria A

Magnetic Field Standards (IEC 61000-4-8):

- Enclosure Ports: 30A/m @ 50, 60Hz; Criteria A

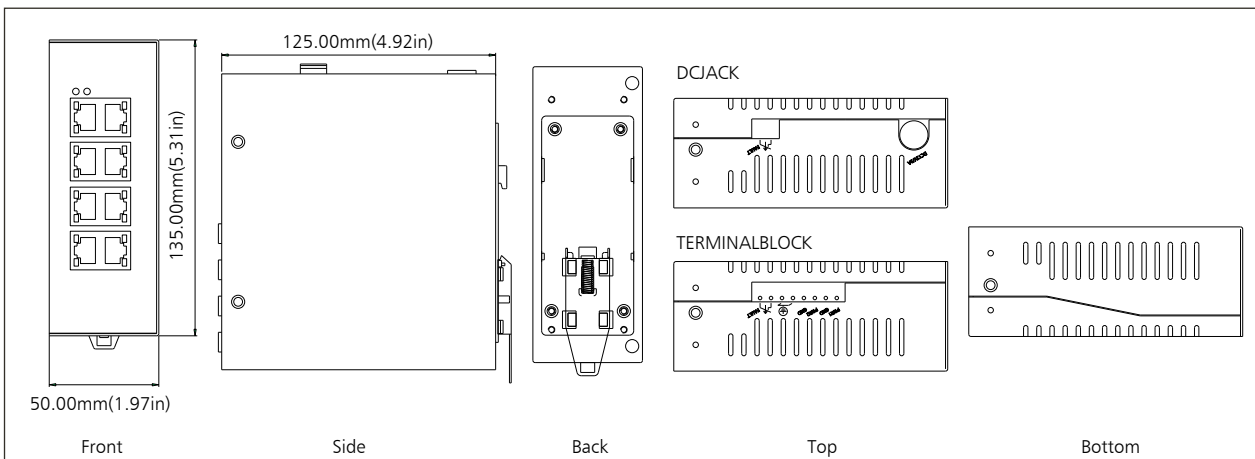
Voltage Dip Standards (IEC 61000-4-11):

- A.C. Power Ports: 30% Reduction for 0.5 period; Criteria B

Environmental Test Compliance:

- (IEC 60068-2-6) Vibration Resistance: 5G @ 150Hz; Criterion 3 (Operation/Storage/Transport)
- (IEC 60068-2-27) Shock: 25G @ 11ms (Half-Sine Shock Pulse; Operation) 50G @ 11ms (Half-Sine Shock Pulse; Storage/Transport)
- (IEC 60068-2-32) Free Fall: 1M (3.281ft.)

Diagrams



Ordering Information

EX43008-00-I-P	Hardened Unmanaged Switch with 8-port 10/100Base-TX
EX43018-XY-I-P	Hardened Unmanaged Switch with 8-port 10/100Base-TX + 1-port 100Base-FX
EX43026-XY-I-P	Hardened Unmanaged Switch with 6-port 10/100Base-TX + 2-port 100Base-FX
EX43044-XY-I-P	Hardened Unmanaged Switch with 4-port 10/100Base-TX + 4-port 100Base-FX

100FX Fiber Options :

(XY) = 1A : Multi Mode (SC)

1B : Multi Mode (ST)

2A : Single Mode (SC) -20KM

2B : Single Mode (SC) -40KM

2C : Single Mode (SC) -75KM

*More 100FX Fiber options also available upon request.

2D : Single Mode (ST) -20KM

2E : Single Mode (SC) WDM -TX:1310nm/RX:1550nm -20KM

2F : Single Mode (SC) WDM -TX:1310nm/RX:1550nm -40KM

2G : Single Mode (SC) WDM -TX:1550nm/RX:1310nm -20KM

2H : Single Mode (SC) WDM -TX:1550nm/RX:1310nm -40KM

Installation Type : (I) = 1 : DIN Rail (mounting kit is included)

Optional Panel mount kit, ordered separately, part number: **KP-AA96-480**



Optional Rack mount kit, ordered separately, part number: **KR-BK43-400**



Power Connector Options : (P) = A : Terminal Block* / B : DC Jack**

*Options A -The Terminal Block option does not include an external Power supply. Please order the following part numbers, as required: **EX-DR-30-24, EX-DR-60-24, EX-DR-75-24, or EX-DR-120-24, 41-136046-1~5**

Options B -The external power adapter and power cord are not included with the switch. Please order the following part numbers, as required: **41-136044-1~5

*See page 4-5 to 4-8 for more detailed information about optional accessories (Din-Rail Power supply, Power adapter)