EX42000 Series

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

Overview

The EX42000 series compact Fast Ethernet Switches are equipped with 5-port 10/100Base-TX or 4-port 10/100Base-TX plus 1-port 100Base-FX. By using standard auto-negotiation and the inclusion of auto-MDIX, EtherWAN provides a cost-effective way of integrating legacy 10Mbps networks with 100Mbps Fast Ethernet networks. The TX ports auto-negotiate for 10/100Mbps speed and auto-detect Full or Half-duplex mode. The fiber port on EX42014 is available with SC or ST with a fiber connection between two nodes that can reach up to 120Km (74.4miles). EX42000 series can be DIN-Rail mounted and is equipped with Terminal Block power input to match the industrial applications that require an Ethernet Switch.

Features

- Complies with IEC61000-6-2 EMC Generic standard immunity for Industrial environment
- 2048 MAC addresses
- 384K bits buffer memory
- 10/100Mbps-Full/Half-duplex, Auto-Negotiation, Auto-MDI/MDIX
- 12 to 48VDC Power inputs
- -10°C to 60°C (14°F to 140°F) operating temperature range
- Industrial plastic case
- Supports DIN-Rail Mounting installation
- Full wire-speed forwarding rate

Ordering Information

EX42005-00-I-P	5-port 10/100Base-TX Industrial Unmanaged Ethernet Switch
EX42014-XY-I-P	4-port 10/100Base-TX + 1-port 100Base-FX Industrial Unmanaged Ethernet Switch
EX42011-XY-I-P	1-port 10/100Base-TX + 1-port 100Base-FX Industrial 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
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

*More 100FX Fiber options also available upon request.

Installation Type:

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

Power Connector Options :

(P) = A : Terminal Block*

*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=1,2,3,4,5

*See page 4-5 to 4-9 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:
- 384K 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 5.1μs

Power

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

Power Consumption:
- 2.4W Max. 0.2A@12VDC, 0.1A@24VDC, 0.05A@48VDC

Power Supply References:
- Terminal Block: 12 to 24VDC, 1.5A

Overload Current Protection:
- Present

Reverse Polarity Protection:
- Present

Mechanical

Casing:
- Plastic case
- IP30

Dimensions:
- 26mm (W) x 70mm (D) x 110mm (H)
  (1.02" (W) x 2.76" (D) x 4.33" (H))

Weight:
- 0.2Kg (0.44lb.)

Installation:
- DIN-Rail Mounting

Interface

Ethernet Port:
- 10/100Base-TX: 5, 4 or 1 ports
- 100Base-FX: 0 or 1 ports

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

Environment

Operating Temperature:
- -10°C to 60°C (14°F to 140°F)

Storage Temperature:
- -25°C to 85°C (-13°F to 185°F)

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

Regulatory Approvals

ISO:
- Manufactured in an ISO9001 facility

Safety:
- UL60950-1, EN60950-1, IEC60950-1

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
  - EN61000-4-4 (Burst Standards)
    Signal Ports: + / - 4KV; Criteria B
    D.C. Power Ports: + / - 4KV; Criteria B
    A.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
    A.C. Power Ports: + / - 2KV; 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
    A.C. Power Ports: 10Vrms @ 0.15~80MHz; 80% AM Criteria A
  - EN61000-4-8 (Magnetic Field Standards)
    30A/m @ 50, 60Hz; Criteria A
  - EN61000-4-11 (Voltage Dip Standards)
    A.C. Power Ports: 30% Reduction for 0.5 period; Criteria B

Environmental Test Compliance:
- IEC60068-2-6 Fc (Vibration Resistance)
  5g @ 10~150KHz, 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