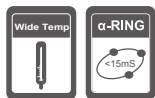


EX63000 Series

Managed Industrial 16-port 10/100BASE with 2-port Gigabit combo Ethernet Switch



- Provides flexibility of 16-port 10/100BASE-TX/FX/BX plus 2-port Gigabit-SX/LX/BX combo
- Wide temp range for extreme environments



Features

- Supports α-ring and RSTP/MSTP/STP for Ethernet redundancy
- IP Multicast Filtering through IGMP Snooping V1, V2 & V3
- Supports port-based VLAN and IEEE802.1Q VLAN Tagging and GVRP
- IEEE802.1p QoS with four priority queues
- MAC-based trunking and LACP
- IEEE802.1x Security
- Bandwidth Rate Control
- Per-port programmable MAC address locking
- Up to 24 Static Secure MAC addresses per port
- Port mirroring
- NTP synchronization
- DHCP Client/Server
- RS-232 console, Telnet, SNMP V1, V2c & V3, RMON, Web Browser, and TFTP Management
- 1000Mbps-Full-duplex, 10/100Mbps-Full/Half-duplex, Auto-Negotiation, Auto-MDI/MDIX
- Full wire-speed forwarding rate
- -10°C to 60°C (-14°F to 140°F) operating temperature range

Ordering Information

EX63400-00Z	16-port 10/100BASE-TX Industrial Managed Ethernet Switch
EX63401-0YZ	16-port 10/100BASE-TX + 1-port Gigabit Industrial Managed Ethernet Switch
EX63402-0YZ	16-port 10/100BASE-TX + 2-port Gigabit Industrial Managed Ethernet Switch
EX63310-X0Z	12-port 10/100BASE-TX + 1-port 100BASE-FX Industrial Managed Ethernet Switch
EX63311-XYZ	12-port 10/100BASE-TX + 1-port 100BASE-FX + 1-port Gigabit Industrial Managed Ethernet Switch
EX63312-XYZ	12-port 10/100BASE-TX + 1-port 100BASE-FX + 2-port Gigabit Industrial Managed Ethernet Switch
EX63320-X0Z	12-port 10/100BASE-TX + 2-port 100BASE-FX Industrial Managed Ethernet Switch
EX63321-XYZ	12-port 10/100BASE-TX + 2-port 100BASE-FX + 1-port Gigabit Industrial Managed Ethernet Switch
EX63322-XYZ	12-port 10/100BASE-TX + 2-port 100BASE-FX + 2-port Gigabit Industrial Managed Ethernet Switch
EX63200-00Z	8-port 10/100BASE-TX Industrial Managed Ethernet Switch
EX63201-0YZ	8-port 10/100BASE-TX + 1-port Gigabit Industrial Managed Ethernet Switch
EX63202-0YZ	8-port 10/100BASE-TX + 2-port Gigabit Industrial Managed Ethernet Switch
EX63210-X0Z	8-port 10/100BASE-TX + 1-port 100BASE-FX Industrial Managed Ethernet Switch
EX63211-XYZ	8-port 10/100BASE-TX + 1-port 100BASE-FX + 1-port Gigabit Industrial Managed Ethernet Switch
EX63212-XYZ	8-port 10/100BASE-TX + 1-port 100BASE-FX + 2-port Gigabit Industrial Managed Ethernet Switch
EX63220-X0Z	8-port 10/100BASE-TX + 2-port 100BASE-FX Industrial Managed Ethernet Switch
EX63221-XYZ	8-port 10/100BASE-TX + 2-port 100BASE-FX + 1-port Gigabit Industrial Managed Ethernet Switch
EX63222-XYZ	8-port 10/100BASE-TX + 2-port 100BASE-FX + 2-port Gigabit Industrial Managed Ethernet Switch
EX63240-X0Z	8-port 10/100BASE-TX + 4-port 100BASE-FX Industrial Managed Ethernet Switch
EX63241-XYZ	8-port 10/100BASE-TX + 4-port 100BASE-FX + 1-port Gigabit Industrial Managed Ethernet Switch
EX63242-XYZ	8-port 10/100BASE-TX + 4-port 100BASE-FX + 2-port Gigabit Industrial Managed Ethernet Switch

100FX Fiber Options :

- (X) = 1 : Multi Mode (SC) - 2Km
 2 : Multi Mode (ST) - 2Km
 6 : Multi Mode (SC) WDM-TX:1310nm/RX:1550nm - 2Km
 7 : Multi Mode (SC) WDM-TX:1550nm/RX:1310nm - 2Km
 8 : Multi Mode (SC) WDM-TX:1310nm/RX:1550nm - 5Km
 9 : Multi Mode (SC) WDM-TX:1550nm/RX:1310nm - 5Km
 *More 100FX Fiber options also available upon request.

- A : Single Mode (SC) - 20Km
 B : Single Mode (SC) - 40Km
 H : Single Mode (ST) - 20Km
 P : Single Mode (SC) WDM-TX:1310nm/RX:1550nm - 20Km
 Q : Single Mode (SC) WDM-TX:1550nm/RX:1310nm - 20Km
 R : Single Mode (SC) WDM-TX:1310nm/RX:1550nm - 40Km
 S : Single Mode (SC) WDM-TX:1550nm/RX:1310nm - 40Km

Gigabit Port Options :

- (Y) = 1 : 10/100/1000BASE-TX
 3 : 1000BASE-SX (SC) - 550m
 4 : 1000 BASE-SX(SC) - 2Km
 5 : 1000 BASE-SX(ST) - 550m
 *More Gigabit options also available upon request.
 *Get Gigabit Fiber options with bonus Copper support.

- A : 1000BASE-LX (SC) -10Km
 B : 1000BASE-LX (SC) -20Km
 R : 1000BASE-BX (SC) WDM-TX:1310nm/RX:1550nm - 20Km
 S : 1000BASE-BX (SC) WDM-TX:1550nm/RX:1310nm - 20Km

Power Input Interface :

- (Z) = B : Terminal Block & DC Jack

Installation Type : DIN Rail (mounting kit is included), Optional Panel Mount kits are available for ordering.

Power Supply : (Optional)

*Option A - Terminal Block power supply(s), part numbers:

DR-30-24, DR-60-24, DR-75-24, DR-120-24, DR-75-48, DR-120-48 or 41-136046-X (X)=1: US, 2: EU, 3: UK, 4: AU, 5: JP

**Option B - DC Jack power supplies kit(s), part numbers: 41-136044-X (X)=1: US, 2: EU, 3: UK, 4: AU, 5: JP

Installation Type : DIN Rail (mounting kit is included), Optional Panel Mount kits (KP-AA96-480) are available for ordering.

Specifications

Technology	
Standards	IEEE802.3 10BASE-T, IEEE802.3u 100BASE-TX, IEEE802.3ab 1000BASE-T, IEEE802.3z 1000BASE-SX/1000BASE-LX, IEEE802.3x, IEEE802.1p, IEEE802.1Q, IEEE802.1w, IEEE802.1x
Forward and Filtering Rate	14,880pps for 10Mbps 148,810pps for 100Mbps 1,488,100pps for 1000Mbps
Packet Buffer Memory	2M bits
Processing Type	- Store-and-Forward - Half-duplex back-pressure and IEEE802.3x full-duplex flow control
Address Table Size	8192 MAC addresses

Power	
Input	Input Voltage: 12 to 48VDC (Terminal Block); 12VDC (DC Jack)
Power Consumption	15W Max. 1.25A @ 12VDC, 0.625A @ 24VDC
Overload Current Protection	Present
Reverse Polarity Protection	Present

Mechanical	
Casing	- Metal case - IP30
Dimensions	59mm (W) x 125mm (D) x 145mm (H) (2.32" (W) x 4.92" (D) x 5.71" (H))
Weight	1Kg (2.2lbs.)
Installation	DIN-Rail (Top hat type 35mm), Wall Mount

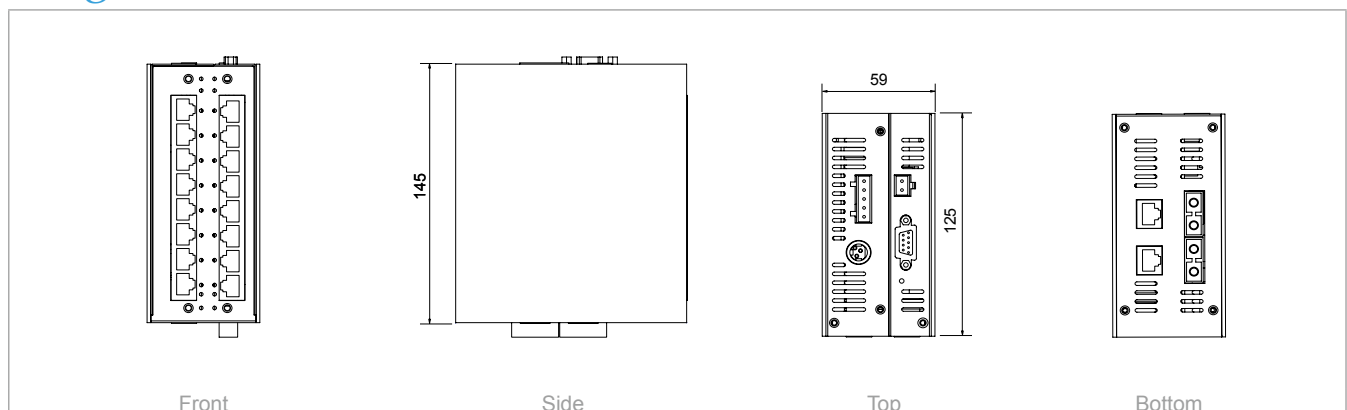
Interface	
Ethernet Port	10/100BASE-TX: 16, 12 or 8 ports 100BASE-FX: 0, 1, 2 or 4 ports - Gigabit: 0, 1 or 2 ports
Console Port	Port: One DB9 RS-232 port
LED Indicators	- Per Unit: Power Status (Power 1, Power 2, Power 3) - Per Port: 10/100BASE: Link/Activity 1000BASE: Link/Activity (Green: Copper, Amber: Fiber)
Alarm Contact	One relay output with current 1A @ 24VDC

Environment	
Operating Temperature	-10°C to 60°C (14°F to 140°F) - Tested @ -20°C to 70°C (-4°F to 158°F)
Storage Temperature	-45°C to 85°C (-49°F to 185°F)
Ambient Relative Humidity	5% to 95% (non-condensing)

Regulatory Approvals	
ISO	Manufactured in an ISO9001 facility
EMI	- FCC Part 15, Class A - EN61000-6-4 - EN55022 - EN61000-3-2 - EN61000-3-3
EMS	- EN61000-6-2 - EN61000-4-2 (ESD Standards) Contact: + / - 6KV Air: + / - 8KV - EN61000-4-3 (Radiated RFI Standards) 10V/m, 80 to 1000MHz; 80% AM - EN61000-4-4 (Burst Standards) Signal Ports: + / - 4KV D.C. Power Ports: + / - 4KV - EN61000-4-5 (Surge Standards) Signal Ports: + / - 1KV; Line-to-Line D.C. Power Ports: + / - 0.5KV; Line-to-Earth - EN61000-4-6 (Induced RFI Standards) Signal Ports: 10Vrms @ 0.15 - 80MHz; 80% AM D.C. Power Ports: 10Vrms @ 0.15 - 80MHz; 80% AM - EN61000-4-8 (Magnetic Field Standards) 30A/m @ 50, 60Hz
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) - FED STD 101C Method 5007.1 (Free fall w/ package) -Tested with Cross Weight and Drop High standard table

Diagrams

Unit: mm



EX73000 Series

Managed Hardened 16-port 10/100BASE with 2-port Gigabit combo Ethernet Switch



- Provides flexibility of 16-port 10/100BASE-TX/FX/BX plus 2-port Gigabit-SX/LX/BX combo
- Safety ISA12.12.01 approved
- Wide temp range for extreme environments



Features

- Certified by NEMA TS2 Environmental requirements for Traffic control equipment
- Supports α-ring and RSTP/MSTP/STP for Ethernet redundancy
- IP Multicast Filtering through IGMP Snooping V1, V2 & V3
- Supports port-based VLAN and IEEE802.1Q VLAN Tagging and GVRP
- IEEE802.1p QoS with four priority queues
- MAC-based trunking and LACP
- IEEE802.1x Security
- Bandwidth Rate Control
- Per-port programmable MAC address locking
- Up to 24 Static Secure MAC addresses per port
- Port mirroring
- NTP synchronization
- DHCP Client/Server
- RS-232 console, Telnet, SNMP V1, V2c & V3, RMON, Web Browser, and TFTP Management
- 1000Mbps-Full-duplex, 10/100Mbps-Full/Half-duplex, Auto-Negotiation, Auto-MDI/MDIX
- Full wire-speed forwarding rate
- -40°C to 75°C (-40°F to 167°F) operating temperature range, tested for functional operation @ -40°C to 85°C (-40°F to 185°F)

Ordering Information

EX73400-00Z	16-port 10/100BASE-TX Hardened Managed Ethernet Switch
EX73401-0YZ	16-port 10/100BASE-TX + 1-port Gigabit Hardened Managed Ethernet Switch
EX73402-0YZ	16-port 10/100BASE-TX + 2-port Gigabit Hardened Managed Ethernet Switch
EX73310-X0Z	12-port 10/100BASE-TX + 1-port 100BASE-FX Hardened Managed Ethernet Switch
EX73311-XYZ	12-port 10/100BASE-TX + 1-port 100BASE-FX + 1-port Gigabit Hardened Managed Ethernet Switch
EX73312-XYZ	12-port 10/100BASE-TX + 1-port 100BASE-FX + 2-port Gigabit Hardened Managed Ethernet Switch
EX73320-X0Z	12-port 10/100BASE-TX + 2-port 100BASE-FX Hardened Managed Ethernet Switch
EX73321-XYZ	12-port 10/100BASE-TX + 2-port 100BASE-FX + 1-port Gigabit Hardened Managed Ethernet Switch
EX73322-XYZ	12-port 10/100BASE-TX + 2-port 100BASE-FX + 2-port Gigabit Hardened Managed Ethernet Switch
EX73200-00Z	8-port 10/100BASE-TX Hardened Managed Ethernet Switch
EX73201-0YZ	8-port 10/100BASE-TX + 1-port Gigabit Hardened Managed Ethernet Switch
EX73202-0YZ	8-port 10/100BASE-TX + 2-port Gigabit Hardened Managed Ethernet Switch
EX73210-X0Z	8-port 10/100BASE-TX + 1-port 100BASE-FX Hardened Managed Ethernet Switch
EX73211-XYZ	8-port 10/100BASE-TX + 1-port 100BASE-FX + 1-port Gigabit Hardened Managed Ethernet Switch
EX73212-XYZ	8-port 10/100BASE-TX + 1-port 100BASE-FX + 2-port Gigabit Hardened Managed Ethernet Switch
EX73220-X0Z	8-port 10/100BASE-TX + 2-port 100BASE-FX Hardened Managed Ethernet Switch
EX73221-XYZ	8-port 10/100BASE-TX + 2-port 100BASE-FX + 1-port Gigabit Hardened Managed Ethernet Switch
EX73222-XYZ	8-port 10/100BASE-TX + 2-port 100BASE-FX + 2-port Gigabit Hardened Managed Ethernet Switch
EX73240-X0Z	8-port 10/100BASE-TX + 4-port 100BASE-FX Hardened Managed Ethernet Switch
EX73241-XYZ	8-port 10/100BASE-TX + 4-port 100BASE-FX + 1-port Gigabit Hardened Managed Ethernet Switch
EX73242-XYZ	8-port 10/100BASE-TX + 4-port 100BASE-FX + 2-port Gigabit Hardened Managed Ethernet Switch

100FX Fiber Options :

*More 100FX Fiber options also available upon request.

- (X) = 1 : Multi Mode (SC) - 2Km
 2 : Multi Mode (ST) - 2Km
 6 : Multi Mode (SC) WDM-TX:1310nm/RX:1550nm - 2Km
 7 : Multi Mode (SC) WDM-TX:1550nm/RX:1310nm - 2Km
 8 : Multi Mode (SC) WDM-TX:1310nm/RX:1550nm - 5Km
 9 : Multi Mode (SC) WDM-TX:1550nm/RX:1310nm - 5Km

- A : Single Mode (SC) - 20Km
 B : Single Mode (SC) - 40Km
 H : Single Mode (ST) - 20Km
 P : Single Mode (SC) WDM-TX:1310nm/RX:1550nm - 20Km
 Q : Single Mode (SC) WDM-TX:1550nm/RX:1310nm - 20Km
 R : Single Mode (SC) WDM-TX:1310nm/RX:1550nm - 40Km
 S : Single Mode (SC) WDM-TX:1550nm/RX:1310nm - 40Km

Gigabit Port Options :

*More Gigabit options also available upon request.

- (Y) = 1 : 10/100/1000BASE-TX (No Gigabit Fiber port supported)
 3 : Combo port : 10/100/1000BASE-TX with 1000BASE-SX (SC) - 550m
 4 : Combo port : 10/100/1000BASE-TX with 1000BASE-TX with 1000 BASE-SX(SC) - 2Km
 5 : Combo port : 10/100/1000BASE-TX with 1000BASE-TX with 1000 BASE-SX(ST) - 550m

- A : Combo port : 10/100/1000BASE-TX with 1000BASE-LX (SC) - 10Km
 B : Combo port : 10/100/1000BASE-TX with 1000BASE-LX (SC) - 20Km
 R : Combo port : 10/100/1000BASE-TX with 1000BASE-LX (SC) WDM-TX:1310nm/RX:1550nm - 20Km
 S : Combo port : 10/100/1000BASE-TX with 1000BASE-LX (SC) WDM-TX:1550nm/RX: 1310nm - 20Km

Power Input Interface :

(Z) = B : Terminal Block & DC Jack

Power Supply : (Optional)

*Option A - Terminal Block power supply(s), part numbers:

DR-30-24, DR-60-24, DR-75-24, DR-120-24 or 41-136046-X (X)=1: US, 2: EU, 3: UK, 4: AU, 5: JP

**Option B - DC Jack power supplies kit(s), part numbers: 41-136044-X (X)=1: US, 2: EU, 3: UK, 4: AU, 5: JP

Installation Type : DIN Rail (mounting kit is included), Optional Panel Mount kits (KP-AA96-480) are available for ordering.

Specifications

Technology	
Standards	IEEE802.3 10BASE-T, IEEE802.3u 100BASE-TX, IEEE802.3ab 1000BASE-T, IEEE802.3z 1000BASE-SX/1000BASE-LX, IEEE802.3x, IEEE802.1p, IEEE802.1Q, IEEE802.1w, IEEE802.1x
Forward and Filtering Rate	14,880pps for 10Mbps 148,810pps for 100Mbps 1,488,100pps for 1000Mbps
Packet Buffer Memory	2M bits
Processing Type	- Store-and-Forward - Half-duplex back-pressure and IEEE802.3x full-duplex flow control
Address Table Size	8192 MAC addresses

Power	
Input	Input Voltage: 12 to 48VDC (Terminal Block); 12VDC (DC Jack)
Power Consumption	15W Max. 1.25A @ 12VDC, 0.625A @ 24VDC
Overload Current Protection	Present
Reverse Polarity Protection	Present

Mechanical	
Casing	- Aluminum case - IP30
Dimensions	65mm (W) x 125mm (D) x 145mm (H) (2.56" (W) x 4.92" (D) x 5.71" (H))
Weight	1Kg (2.2lbs.)
Installation	DIN-Rail (Top hat type 35mm), Wall Mount

Interface	
Ethernet Port	10/100BASE-TX: 16, 12 or 8 ports 100BASE-FX: 0, 1, 2 or 4 ports - Gigabit: 0, 1 or 2 ports
Console Port	Port: One DB9 RS-232 port
LED Indicators	- Per Unit: Power Status (Power 1, Power 2, Power 3) - Per Port: 10/100BASE: Link/Activity 1000BASE: Link/Activity (Green: Copper, Amber: Fiber)
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	-45°C to 85°C (-49°F to 185°F)
Ambient Relative Humidity	5% to 95% (non-condensing)

Regulatory Approvals	
ISO	Manufactured in an ISO9001 facility
Safety	UL508
Hazardous Locations	UL1604 (ISA 12.1201)
EMI	- FCC Part 15, Class A - EN61000-6-4 - EN55022 - EN61000-3-2 - EN61000-3-3
EMS	- EN61000-6-2 - EN61000-4-2 (ESD Standards) Contact: + / - 6KV Air: + / - 8KV; Criteria B - EN61000-4-3 (Radiated RFI Standards) 10V/m, 80 to 1000MHz; 80% AM - EN61000-4-4 (Burst Standards) Signal Ports: + / - 4KV D.C. Power Ports: + / - 4KV - EN61000-4-5 (Surge Standards) Signal Ports: + / - 1KV; Line-to-Line D.C. Power Ports: + / - 0.5KV; Line-to-Earth - EN61000-4-6 (Induced RFI Standards) Signal Ports: 10Vrms @ 0.15 - 80MHz; 80% AM D.C. Power Ports: 10Vrms @ 0.15 - 80MHz; 80% AM - EN61000-4-8 (Magnetic Field Standards) 30A/m @ 50, 60Hz
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) - FED STD 101C Method 5007.1 (Free fall w/ package) -Tested with Cross Weight and Drop High standard table

Diagrams

Unit: mm

