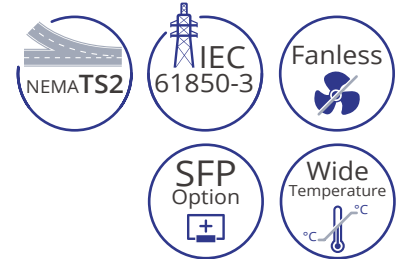


EX73900E Series

Hardened Managed 10 to 16-Port Gigabit Ethernet Switch



Product Highlights

High Bandwidth and Versatility

- 8 or 12 10/100/1000BASE-T(X) ports for high bandwidth connections
- Up to 4 dual-rate 100/1000BASE SFP uplink ports for fiber connections
- Full capacity switching running at full duplex

Hardened-Grade for Non-Ventilated & Harsh Environments

- Wide operating temperature range -40 to 75°C (-40 to 167°F)
- Fanless operation
- High impact, thermal shock, and electrical noise resistance

Lite Layer 3 Functionality

- Static routing, RIP v1/v2, and OSPF support
- Redundancy with VRRP
- Reduces amount of broadcast traffic

Compliance

- IEC 61850-3/IEEE 1613 certified for power substations
- NEMA TS2 rated
- UL certified for safety

Management/Security Features

- Port control
- Dying gasp feature provides SNMP trap upon power off
- Configure and monitor with eVue™ and eLite™

Support

- Complimentary Technical Support
- Free Firmware Upgrades
- Limited Lifetime Warranty

Overview

EtherWAN's EX73900E series is a hardened DIN-rail mounted managed Ethernet switch platform. Equipped with up to 12 gigabit Ethernet and 4 dual-rate gigabit SFP ports, the EX73900E series provides flexibility, speed, and reliability to support networks for urban infrastructure, transportation, security, power substations, and other areas where connectivity is crucial.

Ordering Information

Models

| | |
|--------------|--|
| EX73934E-0VB | 12-port 10/100/1000BASE-T(X) + 4-port 100/1000BASE SFP |
| EX73924E-0VB | 8-port 10/100/1000BASE-T(X) + 4-port 100/1000BASE SFP |
| EX73922E-0VB | 8-port 10/100/1000BASE-T(X) + 2-port 100/1000BASE SFP |

Software Features

| | |
|---|---|
| Interface | + |
| CLI, Telnet, Web GUI | |
| Management | + |
| Firmware upgrade | |
| Configuration backup | |
| DHCP Server/Client | |
| RMON (Remote Monitoring) | |
| Port Mirroring | |
| NTP (Network Time Protocol) synchronization | |
| LLDP (Link Layer Discovery Protocol) | |
| IPv4/IPv6 | |
| SNMP v1/v2c/v3 | |
| Security | + |
| MAC Address filtering | |
| Enable/Disable port | |
| Storm Control | |
| System Logging | |
| IEEE 802.1x LAN Access Control | |
| Remote authentication through RADIUS and TACACS+ | |
| Complex password support | |
| Multi-user login and privileged access management | |
| SSH for CLI and Telnet security | |
| SSL and HTTPS for Web security | |
| ACL (Access Control List, up to 4096 entries) | |
| Quality of Service (QoS) | + |
| Priority Queues: 8 queues per port | |
| Traffic classification based on IEEE 802.1p CoS (Cost of Service), DSCP (Differentiated Services Code Point), WRR (Weighted Round Robin), and strict mode | |
| Rate Limiting (Ingress/Egress) | |

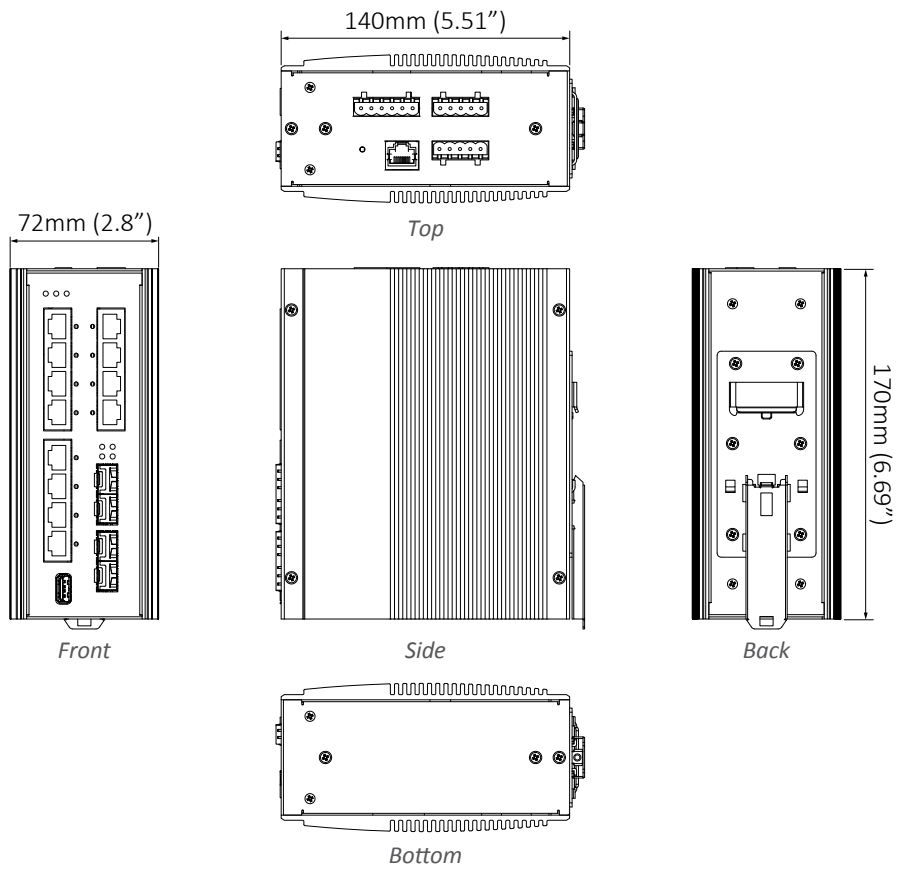
| | |
|---|---|
| Layer 2 Features | + |
| Auto-negotiation for port speed and duplex | Flow Control IEEE 802.3x full duplex mode Back-pressure half duplex mode |
| Redundant Protocols | IEEE 802.1D STP IEEE 802.1w RSTP IEEE 802.1s MSTP EtherWAN's Alpha-Ring network fault recovery (*) *Under improvement |
| VLANs | IEEE 802.1Q Tag VLANs GVRP GMRP |
| Link Aggregation | Static Trunk (4 groups) IEEE 802.3ad LACP |
| IGMP Snooping v1/v2/v3 | |
| Layer 3 Features | + |
| IP Packet Routing | Maximum number of routes in hardware: 64 entries Static Routing RIP v1/v2 OSPF v2 |
| Routing Redundancy | VRRP |
| Software Properties and Performance | + |
| Switching Fabric | 32Gbps |
| Forwarding Rate | 23.5Mpps |
| Total VLAN Entries | 256 (4096 VID) |
| Jumbo Frame Size | 9KB |
| MAC Table Size | 16K |
| Packet Buffer Memory | 12M bits |

Hardware Specifications

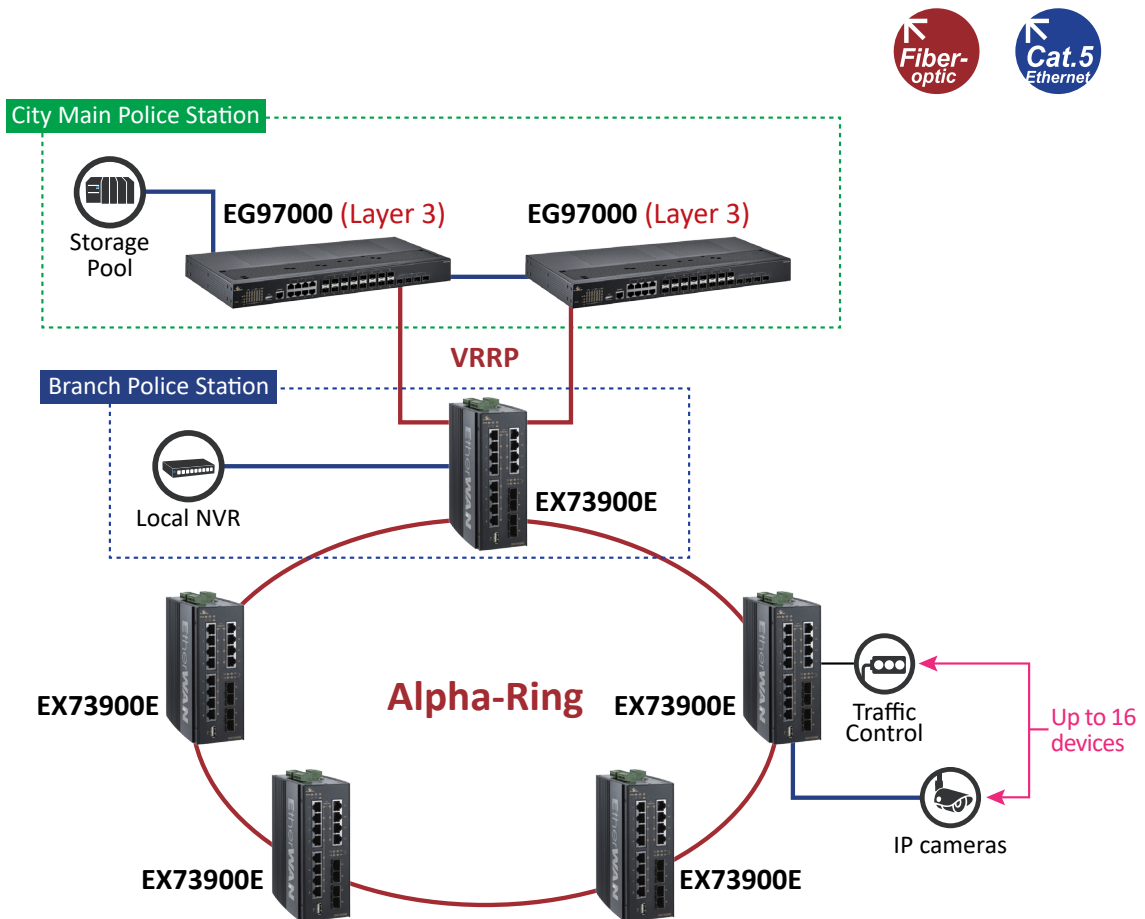
| Interface | | + |
|------------------------|---|---|
| Ethernet | 8 or 12 x 10/100/1000BASE-T(X) 2 or 4 x 100/1000BASE SFP | |
| Console | 1 x RJ45 | |
| Config Backup | 1 x USB (Type A Connector) | |
| Digital Input | 2 x Digital Input Wet Contact: 0-3V for State 0 13-30V for State 1 Max input current: 8mA Dry Contact: Logic Level 1-Close to GND Logic Level 0-Open | |
| Alarm Contact | 2 x Relay output, current capacity 0.6A/30VDC | |
| LED Indicators | Per Unit: Power 1, Power 2, Alarm Per Port: Link/Activity | |
| Technology | | + |
| Standards | IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX/100BASE-FX IEEE 802.3ab 1000BASE-T IEEE 802.3ad link aggregation control IEEE 802.3z 1000BASE-SX/1000BASE-LX IEEE 802.3x full duplex and flow control IEEE 802.1D STP IEEE 802.1p QoS IEEE 802.1Q Tag VLANs IEEE 802.1s MSTP IEEE 802.1w RSTP IEEE 802.1x PNAC IEEE 802.1ab LLDP IEEE 802.3az EEE | |
| Forward/Filtering Rate | 14,800pps for 10Mbps 148,810pps for 100Mbps 1,488,100pps for 1000Mbps | |
| Processing Type | Store-and-forward Auto-negotiation Half-duplex back-pressure and full-duplex flow control Auto MDI/MDIX | |
| System Memory | 2Gb DDR3 SDRAM | |
| Flash Storage | 1Gb | |
| Power | | + |
| Input | 12-48VDC Redundant (Terminal block) | |
| Power Consumption | 20W Max | |
| Protection | Reverse Polarity Protection | |
| Physical | | + |
| Casing Material | Aluminum | |
| IP Rating | IP40 | |
| Dimensions | 72 x 140 x 170mm (W x D x H) 2.8" x 5.5" x 6.7" | |
| Weight | 1.4kg (3.08lbs) | |
| Installation Type | DIN-rail mounting | |

| Environmental | | + |
|-------------------|--|---|
| Operating Temp. | -40 to 75°C (-40 to 167°F) | |
| Storage Temp. | -45 to 85°C (-49 to 185°F) | |
| Relative Humidity | 5% to 95% (non-condensing) | |
| MTBF | 2,046,665 hours | |
| Regulatory | | + |
| ISO | Manufactured in ISO-9001 facility | |
| EMI | FCC Part 15B Class A VCCI Class A EN 61000-6-4 EN 61000-3-2 EN 61000-3-3 | |
| EMS | EN 61000-4-2 (ESD) EN 61000-4-3 (Radiated RFI) EN 61000-4-4 (Burst) EN 61000-4-5 (Surge) EN 61000-4-6 (Induced RFI) EN 61000-4-8 (Magnetic field) | |
| Safety | UL 61010 | |
| Traffic | NEMA TS2 | |
| Rail | EN 50121-4 | |
| Power Substation | IEC 61850-3/IEEE 1613 | |
| Vibration | IEC 60068-2-6 | |
| Shock | IEC 60068-2-27 | |
| Free Fall | FED STD 101C Method 5007.1 | |
| Warranty | | + |
| Length | Limited Lifetime | |
| Details | www.etherwan.com/support/warranty-policy | |
| What's Included | | + |
| Device | Ethernet Switch | |
| Cables | 1 Console Cable | |
| Installation | Mounting brackets, screws | |
| Documentation | Quick Install Guide | |

Dimensions



Application



Software

Network Management eVue™ Network Configuration and Monitoring Tool

Network Discovery eLite™ Network Discovery and IP Configuration Tool

EtherWAN [Home](#) [Devices](#) [Batch](#) [Group](#) [Events](#) [Settings](#) [Screen Zoom](#) [Logout](#)

Device List

| IP | System Name | Group |
|----------------|-------------|-------|
| 192.168.50.12 | EG99-5012 | |
| 192.168.50.62 | EX709-5062 | |
| 192.168.50.254 | R50 | |
| 192.168.50.11 | EG99-5011 | |
| 192.168.50.63 | EX74-5063 | |
| 192.168.50.14 | EX779-5014 | |
| 192.168.50.61 | EX71v2-5061 | |
| 192.168.50.44 | EX71-5044 | |
| 192.168.50.64 | EX73-5064 | |
| 192.168.50.34 | EX739-5034 | |

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Topology

Latest Events 0 0 0

| Acknowledged | ID | Severity | Time | Service | Node | Message |
|--------------|------|----------|------------------------|--------------|--------------|------------------------------|
| ✓ | 5107 | Normal | 6/28/2019, 9:50:35 AM | login | server | User 'admin' logged in. |
| ✓ | 5106 | Normal | 6/27/2019, 10:00:50 AM | login | server | User 'admin' logged in. |
| ✓ | 5105 | Major | 6/24/2019, 1:18:23 PM | ping-monitor | 192.168.1.19 | Web 192.168.1.19 is down. |
| ✓ | 5105 | Major | 6/24/2019, 1:18:23 PM | ping-monitor | 192.168.1.19 | Telnet 192.168.1.19 is down. |
| ✓ | 5104 | Normal | 6/24/2019, 1:12:34 PM | login | server | User 'admin' logged in. |

eLite - □ ×

List Server Firmware Configuration Help

| IP Address | MAC Address |
|---------------|-------------------|
| 192.168.50.22 | 00:e0:b3:50:22:00 |
| 192.168.50.31 | 00:e0:b3:50:31:00 |
| 192.168.50.72 | 00:e0:b3:50:72:00 |
| 192.168.50.55 | 00:e0:b3:50:55:00 |
| 192.168.50.23 | 00:e0:b3:50:23:00 |
| 192.168.50.73 | 00:e0:b3:50:73:00 |
| 192.168.50.44 | 00:e0:b3:50:44:00 |
| 192.168.50.64 | 00:e0:b3:50:64:00 |
| 192.168.50.43 | 00:e0:b3:50:43:00 |
| 192.168.50.62 | 00:e0:b3:50:62:00 |
| 192.168.50.71 | 00:e0:b3:50:71:00 |
| 192.168.50.24 | 00:e0:b3:50:24:00 |

Accessories

| | |
|------------------------------|---|
| Hardened 100BASE SFP Modules | + |
|------------------------------|---|

www.etherwan.com/products/sfp-fiber-transceiver

| | |
|------------------------------|---|
| Hardened Gigabit SFP Modules | + |
|------------------------------|---|

www.etherwan.com/products/sfp-fiber-transceiver

| | |
|-------------------------|---|
| DIN-Rail Power Supplies | + |
|-------------------------|---|

[www.etherwan.com/products/din-rail-power-supply \(*\)](http://www.etherwan.com/products/din-rail-power-supply)

| | |
|---------------------------|---|
| *Recommended Power Supply | + |
|---------------------------|---|

[EX41-145046 Power Supply 45W 12VDC with Open Wire](#)
