# EX71900G Series

Hardened Managed 8-Port Gigabit and 4-Port 100/1G/2.5G SFP Ethernet Switch

## Overview

The EX71900G Series represents an advancement in 2.5G Ethernet switch technology for industrial networking, featuring a compact, fan-less design and advanced management capabilities. With up to 8 Gigabit RJ-45 ports and 4 SFP uplink ports, this switch offers triple-speed flexibility (100Mbps, 1Gbps, 2.5Gbps) to meet evolving bandwidth demands. Its space-saving form factor and support for multiple mounting kits make installation easier and more versatile, even in constrained environments—without sacrificing capability. Built for mission-critical applications, the EX71900G combines Layer 2 and Layer 3 functionalities with robust reliability, ensuring seamless performance in urban infrastructure, transportation, and automation networks.

EtherWAN — "**When Connectivity is Crucial.**"

# Highlight

## ✚ 2.5GbE High Bandwidth and Scalability

- 8 x 10/100/1000BASE-T(X) ports for high bandwidth connections
- Up to 4 tri-speed 100/1000/2500BASE 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

## ✚ Compact Design but Gigantic Capability

- Optimized for Space-Constrained Installations
- All interfaces positioned at the front simplify cable management in tight spaces
- Compact size to fit in small cabinets without compromising performance

## ✚ Support

- Complimentary technical support
- Free firmware upgrades and notifications
- Limited lifetime warranty

# Features

## ✚ Interface

- CLI console, SSH, Web GUI

## ✚ Management

- Firmware Upgrade
- Configuration Backup
- DHCP Server/Client/Snooping/Relay
- RMON (Remote Monitoring)
- Port Mirroring
- NTP (Network Time Protocol) Synchronization
- LLDP (Link Layer Discovery Protocol)
- IPv4/IPv6
- SNMP v1/v2c/v3
- RESTful API

## ✚ Security

- MAC Address Filtering
- Enable/Disable Port
- Storm Control
- System logging
- 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)

## ✚ 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
- ITU-T G.8032 Ethernet Ring Protection Switch (ERPS)

**VLANs**

- IEEE 802.1Q Tag VLANs
- GVRP
- GMRP

**Link Aggregation**

- Static Trunk (8 groups)
- IEEE 802.3ad LACP

**IGMP Snooping v1/v2/v3**

## ✚ Layer 3 Features

**IP Packet Routing**

- Maximum 512 hosts
- Maximum 64 routes
- Static routing
- RIP v1/v2
- OSPF v2

**Routing Redundancy**

- VRRP v2

## ✚ 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)

## ✚ Software Properties and Performance

**Switching Fabric**

- 36Gbps

**Forwarding Rate**

- 26.78Mpps

**Max VLANs**

- 256 groups (4096 VID)

**Jumbo Frame Size**

- 9KB

**MAC Table Size**

- 16K

**Packet Buffer Memory**

- 512KB (4M bits)

# Specifications

## ➕ Interface

**Ethernet**

- 8 x 10/100/1000BASE-T(X)
- 4 x 100/1000/2500BASE SFP

**Console**

- 1 x RJ45

**Config Backup**

- 1 x USB (Type A Connector)

**Alarm Contact**

- Relay output, current capacity 0.6A/30VDC

**LED Indicators**

- Per Unit: Power 1 (Green), Power 2 (Green), Fault (Red)
- Per Port: Link/Activity (Green)

## ➕ Physical

**Casing Material**

- Metal (Aluminum)

**IP Rating**

- IP30

**Dimensions**

- 45 x 135 x 145mm (W x D x H)

**Weight**

- 0.43kg (0.95 lbs)

**Installation Type**

- DIN-rail mounting
- Rack mounting (Optional)
- Panel mounting (Optional)

## ✚ 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 Radius
- IEEE 802.1ab LLDP
- IEEE 802.3az Energy-Efficient Ethernet (EEE)

### Forward/Filtering Rate

- 14,880pps for 10Mbps
- 148,809pps for 100Mbps
- 1,488,095pps for 1000Mbps
- 3,720,238pps for 2500Mbps

### Processing Type

- Store-and-forward
- Auto-negotiation
- Half-duplex back-pressure and full-duplex flow control
- Auto MDI/MDIX

### System Memory

- 1GB DDR3 SDRAM

### Flash Storage

- 128MB

## ✚ 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
- EN 55032
- BSMI

### EMS

- EN 61000-6-2
- - IEC 61000-4-2 (ESD)
- - IEC 61000-4-3 (Radiated RFI)
- - IEC 61000-4-4 (Burst)
- - IEC 61000-4-5 (Surge)
- - IEC 61000-4-6 (Induced RFI)
- - IEC 61000-4-8 (Magnetic field)

### Safety

- UL 62368

### Railway

- EN 50121-4

### Vibration

- IEC 60068-2-6

### Shock

- IEC 60068-2-27

### Free Fall

- IEC 60068-2-31

## ✚ 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**

- 3,330,902 hours

## ✚ Power

**Input**

- 12-48VDC Redundant (Terminal block)

**Power Consumption**

- System only: 6.3W
- Full load: 13.2W

**Protection**

- Reverse Polarity Protection

## ✚ Warranty

**Length**

- Limited Lifetime

**Details**

- www.etherwan.com/support/warranty-policy

## ✚ What's Included

**Device**

- Ethernet switch

**Cables**

- 1 Console cable

**Installation**

- DIN-Rail mounting kit

# Application

# Dimensions



Top

Side
135
148,49(Ref.)
145
135
156,3(Ref.)

Back

Bottom

Front
45

EX61924G
EX71924G

EX61922G
EX71922G

EX61920G
EX71920G
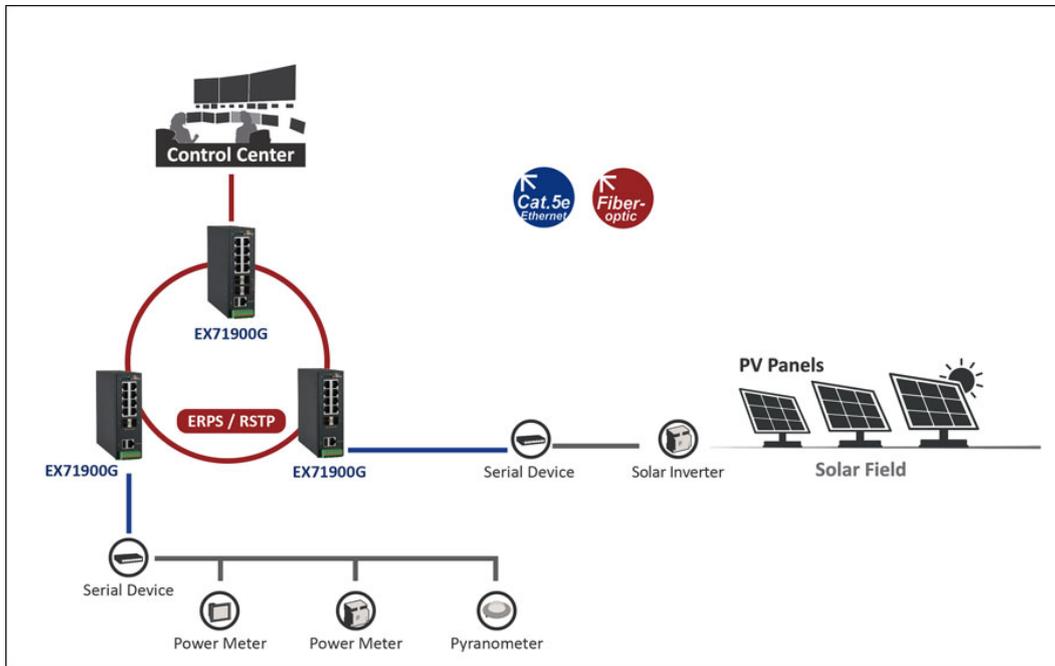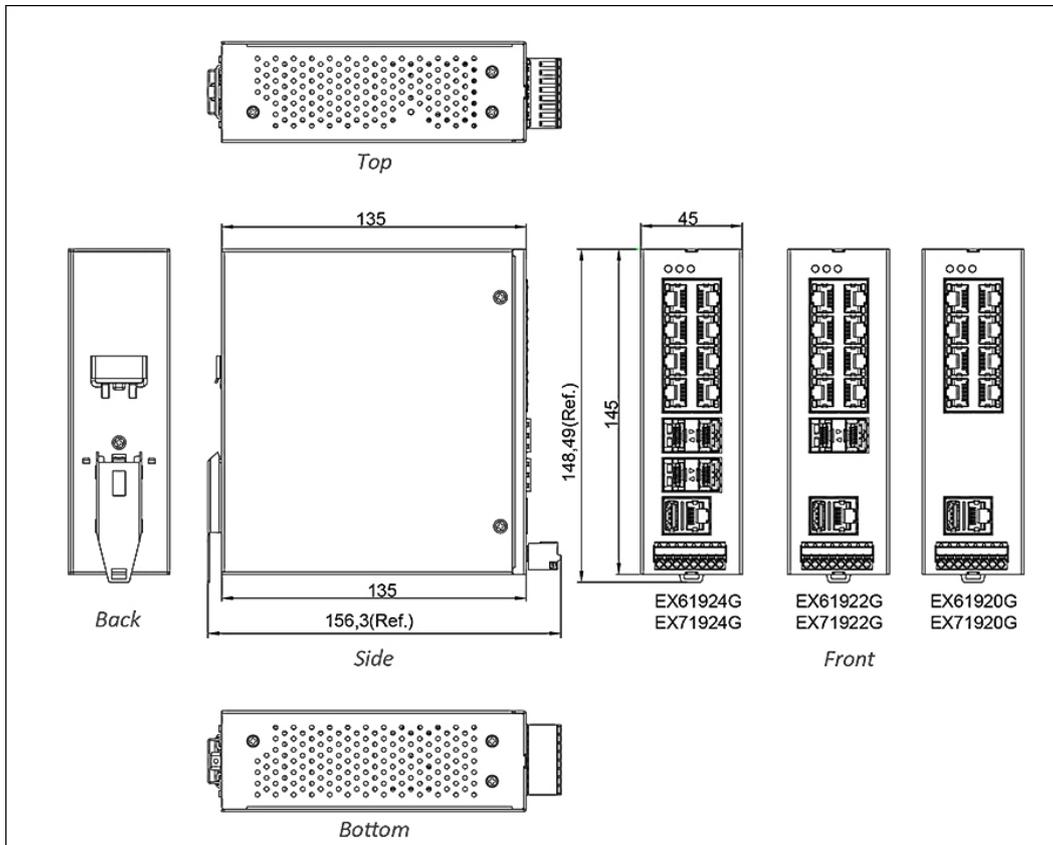
# Ordering Info

## ➕ Model

  

| | EX71924G-1NT | EX71922G-1NT | EX71920G-1NT |
|---|---|---|---|
| 10/100/1000BASE TX | 8 | 8 | 8 |
| 100/1G/2.5G Base-SFP | 4 | 2 | - |
| Operating Temp. | -40 to 75°C | | |
| | Quote | Quote | Quote |

## ➕ Accessories

**SFP Modules**

| Model Number | Transmission Speed | Mode | Distance | Operating Temperature | Wavelength | Connector Type | DDM |
|---|---|---|---|---|---|---|---|
| SFP2IS20M | 2500Mbps | Single-mode | 20km | -40 to 85°C | 1310nm | Duplex LC | ✔ |
| SFP2IM2AM | 2500Mbps | Multi-mode | 160m | -40 to 85°C | 850nm | Duplex LC | ✔ |
| SFP2XT1AM | 2500Mbps | - | 100m | -40 to 85°C | - | RJ-45 | - |
| SFPGIM5AM | 1000Mbps | Multi-mode | 275/550m | -40 to 85°C | 850nm | Duplex LC | ✔ |
| SFPGIM02M | 1000Mbps | Multi-mode | 2km | -40 to 85°C | 1310nm | Duplex LC | ✔ |
| SFPGIS10M | 1000Mbps | Single-mode | 10km | -40 to 85°C | 1310nm | Duplex LC | ✔ |
| SFPGIS20M | 1000Mbps | Single-mode | 20km | -40 to 85°C | 1310nm | Duplex LC | ✔ |
| SFPGXT1AM | 1000Mbps | - | 100m | -40 to 85°C | - | RJ-45 | - |
| EX-0155NSP-MB2L-A | 100Mbps | Multi-mode | 2km | -40 to 85°C | 1310nm | Duplex LC | - |
| SFPMIS20M (DDM) | 100Mbps | Single-mode | 20km | -40 to 85°C | 1310nm | Duplex LC | ✔ |

For more SFP, please visit website:www.etherwan.com/products/sfp-fiber-transceiver

**Industrial DIN-Rail Power Supplies**

| Model Number | Input Voltage | Output Voltage | Description | Operating Temperature |
|---|---|---|---|---|
| HDR-30-12 | 85 - 264VAC | 12VDC | 30W/ 2A DIN Rail 12VDC Industrial Power Supply | -30 to 70°C |
| HDR-30-24 | 85 - 264VAC | 24VDC | 30W/1.5A DIN-Rail 24VDC Industrial Power Supply | -30 to 70°C |
| EDR-75-48 | 90 - 264VAC | 48VDC | 75W/1.6A DIN-Rail 48VDC Industrial Power Supply | -20 to 70°C |

For more Power Supplies, please visit website: www.etherwan.com/products/din-rail-power-supply.

## ➕ Mounting Kits

| Part Name | Description | Image |
|---|---|---|
| KP-BK78900G | Panel Mounting Bracket | |
| KR-BK71900G | Rack Mounting Bracket | |