







# 8 GE Managed Switch -40 to 75C, DIN-rail

#### **Overview**

LevelOne IES-0880 Industry Ethernet Switch provides 8 ports of Gigabit Ethernet to enable high speed network at mission-critical environment. This device is designed to be mounted on an industry standard DIN-rail, plus the clearly visible status LEDs provide simple monitoring of port link

### **High Reliability**

All components are built to withstand harsh environment applications without compromise where humidity, temperature variation and even shock vibration are concerns, including Electric & Utility, Critical Infrastructure, Transportation and Surveillance Security. This device operates under -40 to 75 Celsius (-40 to 167 Fahrenheit) temperature.

### **Resilient Ring Network**

Supports Ring topology network providing simple installation and ultra fast network recovery performance, less than 15ms. Unlike much complex resilient topology, such as a redundant star, the Ring simplifies the network design and requires less cabling installation. In addition, fast network recovery time helps minimize system downtime.

#### 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 with automatic link failover
- RS-232 console, Telnet, SNMP V1, V2c & V3, RMON, Web Browser, and **TFTP Management**
- Supports Command Line Interface in RS-232 Console
- Supports IEEE802.1x Security

# Redundancy

This redundant power system is designed to meet the challenge of power failure to ensure reliability and constant availability. Single power design works fine in non-critical network applications, but it falls short drastically for network applications in transportation, automate production or banking.

### Management

Supports a variety of management features including: CLI via Console or Telnet; Graphic User Interface via Web Browser or Simple Network Management Protocol via SNMP tools. It provides better visibility and management of those critical assets.

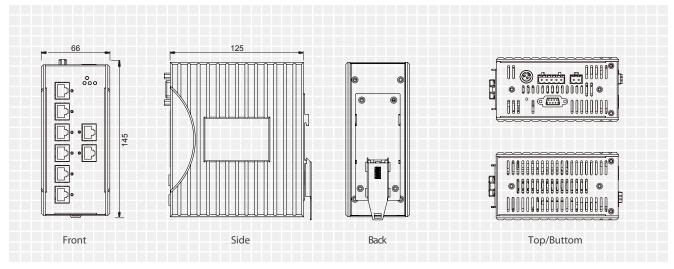
## Safety

This device has been tested under UL508 standard for Industrial Control Equipment to endurance under test turn on and off 6,000 times while loaded, with no single failure. It's highly reliability and safety measurement to ensure field hardened, especially for the harsh environment.

- Bandwidth Rate Control
- Per-port programmable MAC address locking
- Up to 24 Static Secure MAC addresses per port
- Port mirroring
- NTP synchronization
- 1000Mbps-Full-duplex, 10/100Mbps-Full/Half-duplex, Auto-Negotiation, Auto-MDI/MDIX
- Full wire-speed forwarding rate
- -40°C to 75°C wide operating temperature range for extreme environments

#### Diagrams

Unit: mm



# **Specifications**

Technology	
Standards	■ IEEE802.3 10BASE-T, IEEE802.3u 100BASE-TX/100BASE-FX, IEEE802.3ab 1000BASE-T, IEEE802.3z 1000BASE-SX/1000BASE-LX, IEEE802.3x, IEEE802.1Q, IEEE802.1p, IEEE802.1s, IEEE802.1w, IEEE802.1D
Forward and Filtering Rate	<ul><li>14,880pps for 10Mbps</li><li>148,810pps for 100Mbps</li><li>1,488,100pps for 1000Mbps</li></ul>
Packet Buffer Memory	■ 1M bits
Processing Type	Store-and-Forward     Half-duplex back-pressure and IEEE802.3x full-duplex flow control
Address Table Size	■ 4096 MAC addresses

Power	
Input	■ Input Voltage: 12 to 32VDC (Terminal Block); 12VDC (DC Jack)
Power Consumption	■ 22W Max. 1.83A @ 12VDC, 0.92A @ 24VDC
Overload Current Protection	■ Present
Reverse Polarity Protection	■ Present

lechanical	
Casing	■ Aluminum case ■ IP30
Dimensions	■ 66mm (W) x 125mm (D) x 145mm (H) (2.36" (W) x 4.92" (D) x 5.71" (H))
Weight	■ 1.1Kg (2.42lbs.)
Installation	■ DIN-Rail (Top hat type 35mm), Wall Mount
nterface	
Ethernet Port	■ 10/100/1000BASE-TX: 8, 7, or 6 ports ■ 1000BASE-SX/LX: 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), Reset, Alarm Per Port: Link/Activity, Speed
Alarm Contact	One relay output with current 1A @ 24VDC

Environment	
Operating Temperature	■ -40°C to 75°C (-40°F to 167°F)
Storage Temperature	■ -40°C to 85°C (-40°F to 185°F)
Ambient Relative Humidity	■ 5% to 95% (non-condensing)
MTBF	■ 85.6 years

Regulatory Approvals		
ISO	Manufactured in an ISO9001 facility	
Safety	■ UL508	
ЕМІ	■ 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	
Environmenta 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) ■ IEC60068-2-32 Ed (Free Fall) 1M (3.281ft.)	

## **Order Information**

**IES-0880 -** 8 GE Managed Switch -40 to 75C, DIN-rail

Package Contents IES-0880 CD Manual / Utility Quick Installation Guide