



IES-1870

16 FE + 2 GE Managed Switch -10 to 60C, DIN-rail

Overview

LevelOne IES-1870 Industry Ethernet Switch provides 16 ports of 10/100Base-TX plus 2 ports of 1000Base 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 activity.

Cost Effective

This device operates under -10 to 60 Celsius (-14 to 140 Fahrenheit) temperature that offers optimal suitability for industrial applications at low cost while maintaining all components built to withstand harsh environment applications without compromise reliability and stability.

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.

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.

Compact & Fanless

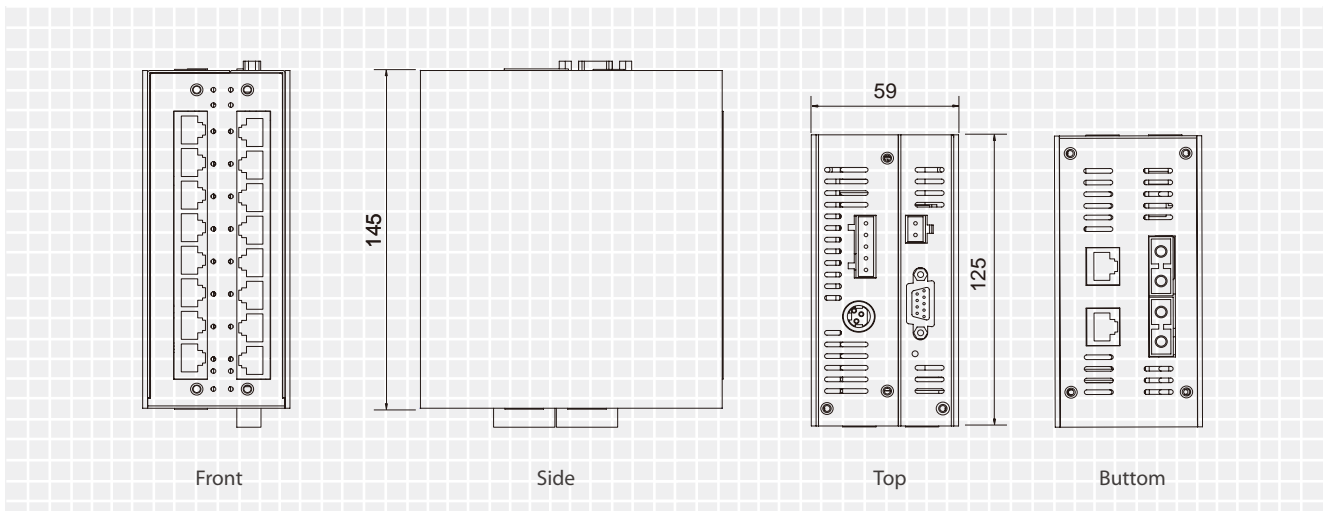
The housing is designed with small footprint, it can be installed on the DIN Rail or Rack, and ideally suited for the limited available space; It is also leveraging a reliable fanless and durable housing which is more efficient and immune to dust.

Features

- Supports a-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) and is tested for functional operation @ -20°C to 70°C (-4°F to 158°F)

Diagrams

Unit: mm



Specifications

Technology	
Standards	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 14,880pps for 10Mbps 148,810pps for 100Mbps 1,488,100pps for 1000Mbps
Packet Buffer Memory	<ul style="list-style-type: none"> 2M bits
Processing Type	<ul style="list-style-type: none"> Store-and-Forward Half-duplex back-pressure and IEEE802.3x full-duplex flow control
Address Table Size	<ul style="list-style-type: none"> 8192 MAC addresses

Power	
Input	<ul style="list-style-type: none"> Input Voltage: 12 to 48VDC (Terminal Block); 12VDC (DC Jack)
Power Consumption	<ul style="list-style-type: none"> 15W Max. 1.25A @ 12VDC, 0.625A @ 24VDC
Overload Current Protection	<ul style="list-style-type: none"> Present
Reverse Polarity Protection	<ul style="list-style-type: none"> Present

Mechanical	
Casing	<ul style="list-style-type: none"> Metal case IP30
Dimensions	<ul style="list-style-type: none"> 59mm (W) x 125mm (D) x145mm (H) (2.32" (W) x 4.92" (D) x 5.71" (H))
Weight	<ul style="list-style-type: none"> 1Kg (2.2lbs.)
Installation	<ul style="list-style-type: none"> DIN-Rail (Top hat type 35mm), Wall Mount

Interface	
Ethernet Port	<ul style="list-style-type: none"> 10/100BASE-TX: 16-ports 10/100/1000BASE-TX: 2-ports
Console Port	<ul style="list-style-type: none"> Port: One DB9 RS-232 port
LED Indicators	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> One relay output with current 1A @ 24VDC

Environment	
Operating Temperature	<ul style="list-style-type: none"> -10°C to 60°C (14°F to 140°F) Tested @ -20°C to 70°C (-4°F to 158°F)
Storage Temperature	<ul style="list-style-type: none"> -45°C to 85°C (-49°F to 185°F)
Ambient Relative Humidity	<ul style="list-style-type: none"> 5% to 95% (non-condensing)
MTBF	<ul style="list-style-type: none"> 57.9 years

Regulatory Approvals	
ISO	<ul style="list-style-type: none"> Manufactured in an ISO9001 facility
EMI	<ul style="list-style-type: none"> FCC Part 15, Class A EN61000-6-4 <ul style="list-style-type: none"> EN55022 EN61000-3-2 EN61000-3-3
EMS	<ul style="list-style-type: none"> EN61000-6-2 <ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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-1870 - 16 FE + 2 GE Managed Switch -10 to 60C, DIN-rail

Package Contents

IES-1870
CD Manual / Utility
Quick Installation Guide