

IES-0820

8 FE Unmanaged Switch -40 to 75, DIN-rail

Overview

LevelOne IES-0820 Industry Ethernet Switch provides 8 ports of 10/100Base-TX 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.

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.

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.

Plug & Play

This unmanaged Industrial Ethernet Switch is designed for the demanding industrial environments at businesses in need of instant connectivity with no setup or configure required, truly plug and play.

Oil & Gas Hazardous Application

Comply with Class 1, Division 2 certified, UL 1604 standard (UL ISA12.12.01) is a higher level certification to assure that products can be safely operated where specific potentially flammable or explosive materials may be present. Sparks can be highly dangerous in the presence of specific flammable gases, vapors or liquids; such as oil and gas refinery, as well as companies that deal with hazardous chemicals.

Safety

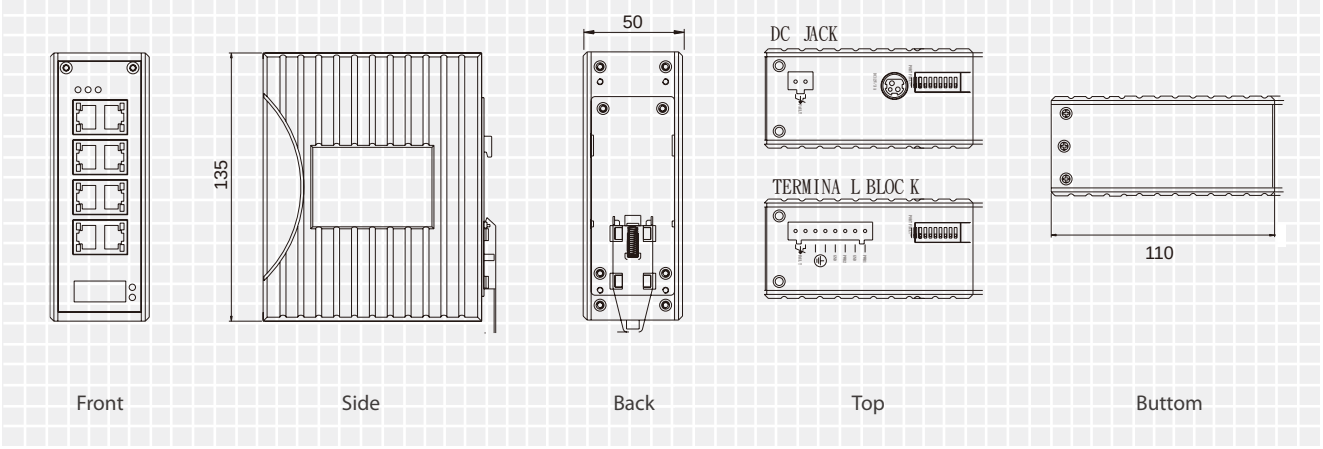
This device has been tested under UL508 standard for Industrial Control Equipment to endurance under test turn on and off 6,000 times while loaded, with no single failure. It's highly reliability and safety measurement to ensure field hardened, especially for the harsh environment.

Features

- Provides flexibility of 8 Ethernet ports that configure in combinations of copper and fiber optic interfaces
- Supports 10/100Mbps-Full/Half-duplex, Auto-Negotiation, Auto-MDI/MDIX
- Redundant power inputs(12 - 48VDC) with Terminal Block and DC Jack (12VDC)
- Alarms for power and port link failure by relay output
- -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)
- Provides DIN-rail or panel mounting
- Complies with NEMA TS2 Environmental requirements for Traffic control equipment
- Complies with IEC61000-6-2 EMC Generic standard immunity for Industrial environment

Diagrams

Unit: mm



Specifications

Technology	
Standards	▪ IEEE802.3 10BASE-T, IEEE802.3u 100BASE-TX/100BASE-FX,IEEE802.3x
Forward and Filtering Rate	▪ 14,880pps for 10Mbps ▪ 148,810pps for 100Mbps
Packet Buffer Memory	▪ 768K bits
Processing Type	▪ Store-and-Forward ▪ Half-duplex back-pressure and IEEE802.3x full-duplex flow control
Address Table Size	▪ 2048 MAC addresses

Power	
Input	▪ Input Voltage: 12 to 48VDC (Terminal Block); 12VDC (DC Jack)
Power Consumption	▪ 6.3W Max. 0.48A @ 12VDC, 0.24A @ 24VDC 0.13A @ 48VDC
Overload Current Protection	▪ Present
Reverse Polarity Protection	▪ Present

Mechanical	
Casing	▪ Aluminum case
Dimensions	▪ 50mm (W) x 110mm (D) x 135mm (H) (1.97" (W) x 4.33" (D) x 5.31" (H))
Weight	▪ 0.8Kg (1.76lbs.)
Installation	▪ DIN-Rail (Top hat type 35mm), Panel Mounting
Interface	
Ethernet Port	▪ 10/100BASE-TX: 8, 6, 5 or 4 ports ▪ 100BASE-FX: 0, 1, 2 or 4 ports
LED Indicators	▪ Per Unit: Power Status (Power 1, Power 2, Fault) ▪ Per Port: 10/100TX, 100FX: Link/Activity (Green), Speed (Yellow)
Alarm Contact	▪ One relay output with current 1.5A @ 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	▪ -40°C to 85°C (-40°F to 185°F)
Ambient Relative Humidity	▪ 5% to 95% (non-condensing)
MTBF	▪ 80.15 years

Regulatory Approvals	
ISO	▪ Manufactured in an ISO9001 facility
Safety	▪ UL508
EMI	▪ FCC Part 15, Class A, VCCI ▪ EN61000-6-3 - EN55022 - EN61000-3-2 - EN61000-3-3
EMS	▪ EN61000-6-2 - EN61000-4-2 (ESD Standards) Contact: + / - 4KV; Criteria B Air: + / - 8KV; Criteria B - EN61000-4-3 (Radiated RFI Standards) 10V/m, 80 to 1000MHz; 80% AM Criteria A 3V/m, 1400 to 2000MHz; 80% AM Criteria A 1V/m, 2000 to 2700MHz; 80% AM Criteria A - EN61000-4-4 (Burst Standards) Signal Ports: + / - 4KV; Criteria B D.C. Power Ports: + / - 4KV; Criteria B - EN61000-4-5 (Surge Standards) Signal Ports: + / - 1KV; Line-to-Line; Criteria B D.C. Power Ports: + / - 0.5KV; Line-to-Earth; Criteria B - EN61000-4-6 (Induced RFI Standards) Signal Ports: 10Vrms @ 0.15 - 80MHz; 80% AM Criteria A D.C. Power Ports: 10Vrms @ 0.15 - 80MHz; 80% AM Criteria A - EN61000-4-8 (Magnetic Field Standards) 30A/m @ 50, 60Hz; Criteria A
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) ▪ IEC60068-2-32 Ed (Free Fall) 1M (3.281ft.)

Order Information

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Package Contents

IES-0820
Quick Installation Guide