



# IES-0910

## 8 FE + 1 MM SC Unmanaged Switch -20 to 60, DIN-rail

### Overview

LevelOne IES-0910 Industry Ethernet Switch provides 8 ports of 10/100Base-TX Ethernet plus 1 port 100FX Multimode SC fiber 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 -20 to 60 Celsius (-4 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.

### Reliability

Rugged IP30 rated aluminium housing is designed for industrial applications. With protection against ingress of dirt and solid metal housing to ensure a long-last operating life under harsh environments.

### 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.

### 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.

### Safety

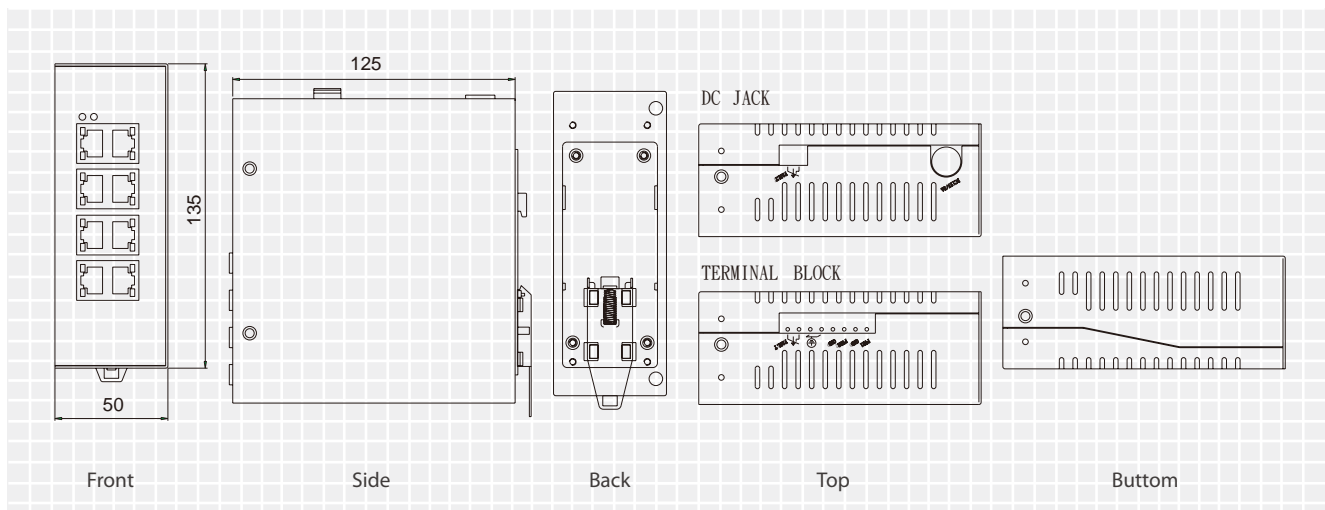
With UL60950 standard complied that gives basic protection against electric shock, fire spread from within, ignition and burning, current circuit hazardous under normal and fault condition. As well as set of compliances to meet many EMC, isolation, vibration and shock standards.

### Features

- Provides flexibility of 9 Ethernet ports that configure in combinations of copper and fiber optic interfaces
- Redundant power inputs with Terminal Block or DC Jack
- -20°C to 60°C (-4°F to 140°F) and is tested for functional operation @-30°C to 70°C (-22°F to 158°F)
- 10/100Mbps-Full/Half-duplex, Auto-Negotiation, Auto-MDI/MDIX
- Complies with IEC61000-6-2 EMC Generic standard immunity for Industrial environment
- Alarms for power failure by relay output

### Diagrams

Unit: mm



## Specifications

Technology	
Standards	<ul style="list-style-type: none"> <li>IEEE802.3 10BASE-T, IEEE802.3u 100BASE-TX/100BASE-FX, IEEE802.3x</li> </ul>
Forward and Filtering Rate	<ul style="list-style-type: none"> <li>14,880pps for 10Mbps</li> <li>148,810pps for 100Mbps</li> </ul>
Packet Buffer Memory	<ul style="list-style-type: none"> <li>768K bits</li> </ul>
Processing Type	<ul style="list-style-type: none"> <li>Store-and-Forward</li> <li>Half-duplex back-pressure and IEEE802.3x full-duplex flow control</li> </ul>
Address Table Size	<ul style="list-style-type: none"> <li>2048 MAC addresses</li> </ul>

Power	
Input	<ul style="list-style-type: none"> <li>Input Voltage: 12 to 30VDC (Terminal Block); 12VDC (DC Jack)</li> </ul>
Power Consumption	<ul style="list-style-type: none"> <li>4.8W Max. 0.38A @ 12VDC, 0.2A @ 24VDC</li> </ul>
Reverse Polarity Protection	<ul style="list-style-type: none"> <li>Present</li> </ul>

Mechanical	
Casing	<ul style="list-style-type: none"> <li>Aluminum case</li> <li>IP30</li> </ul>
Dimensions	<ul style="list-style-type: none"> <li>50mm (W) x 125mm (D) x 135mm (H) (1.97" (W) x 4.92" (D) x 5.31" (H))</li> </ul>
Weight	<ul style="list-style-type: none"> <li>0.8Kg (1.76lbs.)</li> </ul>
Installation	<ul style="list-style-type: none"> <li>DIN-Rail (Top hat type 35mm), Panel, Rack Mounting</li> </ul>

Interface	
Ethernet Port	<ul style="list-style-type: none"> <li>10/100BASE-TX: 8, 6 or 4 ports</li> <li>100BASE-FX: 0, 1, 2 or 4 ports</li> </ul>
LED Indicators	<ul style="list-style-type: none"> <li>Per Unit: Power Status (Power 1, Power 2)</li> <li>Per Port: 10/100TX, 100FX: Link/Activity (Green), Speed (Yellow)</li> </ul>
Alarm Contact	<ul style="list-style-type: none"> <li>One relay output with current 1A @ 24VDC</li> </ul>

Environment	
Operating Temperature	<ul style="list-style-type: none"> <li>-20°C to 60°C (-4°F to 140°F)</li> <li>Tested @ -30°C to 70°C (-22°F to 158°F)</li> </ul>
Storage Temperature	<ul style="list-style-type: none"> <li>-40°C to 85°C (-40°F to 185°F)</li> </ul>
Ambient Relative Humidity	<ul style="list-style-type: none"> <li>5% to 95% (non-condensing)</li> </ul>
MTBF	<ul style="list-style-type: none"> <li>53.47 years</li> </ul>

Regulatory Approvals	
ISO	<ul style="list-style-type: none"> <li>Manufactured in an ISO9001 facility</li> </ul>
Safety	<ul style="list-style-type: none"> <li>UL60950-1</li> </ul>
EMI	<ul style="list-style-type: none"> <li>FCC Part 15, Class A</li> <li>EN61000-6-3               <ul style="list-style-type: none"> <li>EN55022</li> <li>EN61000-3-2</li> <li>EN61000-3-3</li> </ul> </li> </ul>
EMS	<ul style="list-style-type: none"> <li>EN61000-6-2               <ul style="list-style-type: none"> <li>EN61000-4-2 (ESD Standards) Contact: + / - 4KV; Criteria B Air: + / - 8KV; Criteria B</li> <li>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</li> <li>EN61000-4-4 (Burst Standards) Signal Ports: + / - 4KV; Criteria B D.C. Power Ports: + / - 4KV; Criteria B</li> <li>EN61000-4-5 (Surge Standards) Signal Ports: + / - 1KV; Line-to-Line; Criteria B D.C. Power Ports: + / - 0.5KV; Line-to-Earth; Criteria B</li> <li>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</li> <li>EN61000-4-8 (Magnetic Field Standards) 30A/m @ 50, 60Hz; Criteria A</li> </ul> </li> </ul>
Environmental Test Compliance	<ul style="list-style-type: none"> <li>IEC60068-2-6 Fc (Vibration Resistance) 5g @ 10 - 150Hz, Amplitude 0.35mm (Operation/Storage/Transport)</li> <li>IEC60068-2-27 Ea (Shock) 25g @ 11ms (Half-Sine Shock Pulse; Operation) 50g @ 11ms (Half-Sine Shock Pulse; Storage/Transport)</li> <li>IEC60068-2-32 Ed (Free Fall) 1M (3.281ft.)</li> </ul>

## Order Information

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## Package Contents

IES-0910

Quick Installation Guide