IES-2891

24 100FX SFP + 4 GE Combo SFP Managed Switch -40 to 75C, IEC61850

Quick Installation Guide

Default Setting

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>IP</td>
<td>192.168.10.1</td>
</tr>
<tr>
<td>Login</td>
<td>root</td>
</tr>
<tr>
<td>Password</td>
<td>[blank]</td>
</tr>
<tr>
<td>Console</td>
<td>115200, n, 8, 1</td>
</tr>
</tbody>
</table>

Overview

LevelOne IES-2891 Industry Ethernet Switch provides 24 100Base-FX SFP slots plus 4 port Gigabit Combo SFP to enable high speed network at mission-critical environment. With the 1U height rack-mountable size, this switch can be easily installed in the cabinet, plus the clearly visible status LEDs provide simple monitoring of port link activity. Moreover, the SFP slots support pluggable modules that enabling you to choose from a variety of transceivers.

Substation & Railway Applications

This device is complyed with IEC 61850-3 / IEEE 1613 for the power substations and EN 50121-4 for the railway applications. IEC 61850-3 is an international standard for electrical substation systems. The standard enables integration of all control, measurement, monitoring and protection functions within a substation.

GOOSE Message

Critical GOOSE (Generic Object Oriented Substation Event) messages can be sent reliably using the multicast and prioritisation functionality within LevelOne Industrial switches. Moreover, the test was conducted by KEMA, a renowned laboratory for testing and certification for substations.

Management

It 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.

Features

- Complies with IEC61850-3 and IEEE1613 environmental requirements for substation and power automation.
- Complies with EN50121-4 environmental requirements for railway applications.
- Meets EN61000-6-2 & EN61000-6-4 EMC Generic Standard Immunity for industrial environment.
- RS-232 console, Telnet, SNMP v1 & v2c & v3, RMON, Web Browser, and TFTP management.
- Supports Command Line Interface in RS-232 console.
- Supports 8192 MAC addresses. Provides 3M bits memory buffer.
- Supports IEE802.3/802.3a/802.3ab/802.3x. Auto-negotiation: 1000Mbps full-duplex; 10/100Mbps full/half-duplex; Auto MDI/MDIX.
- 100Base-FX: Multi mode SC or ST type, Single mode SC or ST type; 100Base-BX: WDM Single mode SC type.
- 1000Base-SX/LX: Multi mode or Single mode SC type; 1000Base-BX: WDM Single mode SC type.
- SFP socket for Gigabit fibre optic expansion.
- Store-and-forward mechanism.
- Full wire-speed forwarding rate.
- AC inlet power socket: 100~240VAC, 50~60Hz internal universal PSU.
- Terminal Block power input: +48VDC, -48VDC, 88~370VDC, or 90~264VAC.
- Supports redundant power supplies for flexible application.
- -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).
- Hardened metal case.
- Supports Rack Mounting installation.

LED Status

<table>
<thead>
<tr>
<th>LED</th>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PWR</td>
<td>Steady</td>
<td>Power On</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Power Off</td>
</tr>
<tr>
<td>100FX-SFP</td>
<td></td>
<td>Network connection is established</td>
</tr>
<tr>
<td></td>
<td>Flushing</td>
<td>Transmitting or Receiving data</td>
</tr>
<tr>
<td>10/100/1000Base-TX (G1 to G4)</td>
<td></td>
<td>Network connection is established</td>
</tr>
<tr>
<td></td>
<td>Flushing</td>
<td>Transmitting or Receiving data</td>
</tr>
<tr>
<td>1000-SFP</td>
<td></td>
<td>A valid SFP connection established</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>No SFP</td>
</tr>
</tbody>
</table>

Package Contents

- IES-2891
- Quick Installation Guide
- CD User Manual
- 19inch Rack mount kits
Power Input

- AC Input
  - 100-240VAC, 50-60Hz internal universal PSU

Terminal Block Power Supply (Optional)

- Power
  - +48VDC
  - -48VDC
  - 88-370VDC
  - 90-264VAC

- Earth Ground
- Protect Ground

<Note> Dielectric withstand (Hipot) test for DC power input, must remove metal chip between Earth Ground and Protect Ground of the terminal block power input to avoid damage to the Switch.

Redundant Power System is also available, please contact your local sales representative for more details.

Console Configuration

1. Connect to the switch console:
2. Connect the DB9 straight cable to the RS-232 serial port of the device and the RS-232 serial port of the terminal or computer running the terminal emulation application. Direct access to the administration console is achieved by directly connecting a terminal or a PC equipped with a terminal-emulation program (such as HyperTerminal) to the switch console port.
3. Configuration settings of the terminal-emulation program:
4. Press the "Enter" key. The Command Line Interface (CLI) screen should appear as below:
5. Logon to Exec Mode (View Mode):
   - At the "switch_a login:" prompt just type in "root" and press <Enter> to logon to Exec Mode (or View Mode). And the "switch_a>" prompt will show on the screen.
6. Logon to Privileged Exec Mode (Enable Mode):
   - At the "switch_a>" prompt just type in "enable" and press <Enter> to logon to Privileged Exec Mode (or Enable Mode). And the "switch_a#" prompt will show on the screen.
7. Logon to Configure Mode (Configure Terminal Mode):
   - At the "switch_a#" prompt just type in "configure terminal" and press <Enter> to logon to Configure Mode (or Configure Terminal Mode). And the "switch_a(config)#" prompt will show on the screen.

Web Configuration

1. Login the switch:
2. Specify the default IP address (192.168.1.10) of the switch in the web browser. A login window will be shown as below:
3. Enter the factory default login ID: root.
4. Enter the factory default password (no password).
5. Then click on the “Login” button to log on to the switch.

Note: Please refer to User Manual for more detailed information.