

## 4-Port PoE w/ 1-Port SC Fiber Industrial Fast Ethernet Switch

### Product Overview

The LevelOne IFE-0501 and IFE-0502 4-Port 10/100TX PoE and 1-port 100 SC Fiber Industrial Fast Ethernet Switches combine PoE capability and 4-port switching into a small heavy-duty metal casing for Industrial PoE applications.

The IEEE802.3af Power over Ethernet compliant switches connect to a 48V DC power source to provide power and 10/100Mbps data transmission over Ethernet cabling to attached devices.

### Industrial PoE Application

The IFE-0501 and IFE-0502 Industrial PoE Switch is designed for network devices operating in harsh environments. The ports and PoE injector are enclosed in a robust and durable metal casing. The switches are easily installed at network edges where AC power is not always available.

The switches are built to operate between -10°C and 60°C in 95% non-condensing humidity and are suitable for covered outdoor installation. Mounting options include wall-mounting, DIN-rail mounting and stand-alone panel mounting.

### Extending the Network

The 1-Port SC Fiber port links the IFE-0501 and IFE-0502 to a network to provide network extensibility to LAN edges where few AC power outlets are located. The fiber port supports Multi-Mode (IFE-0501) operation and Single-Mode (IFE-0502) operation modes.

The IFE-0501 can be connected to a network 2km away, while the IFE-0502 can connect to a remote network 30km away.

The switches use a standard Store-and-Forward switching architecture with a 1Gbps backplane and 1K MAC address table.

### Auto-Sensing Connected PD Devices

The IFE-0501 and IFE-0502 feature auto-sensing for providing power to IEEE 802.3af PoE compliant attached PD devices. This ensures that non-PoE devices are not damaged by unnecessary power when connected.

The IFE-0501 and IFE-0502 also supports over-current protection, under-current detection and fault protection.



**IFE-0501 / 0502**

## Key Features

- Industrial PoE Switch for harsh network applications
- 4-port 10/100TX with embedded PoE injector
- 1-port 100FX for connecting to LAN via Fiber Optic cable
- Over-current protection
- Features Auto-sensing for detecting PoE or non-PoE devices
- Rigid metal casing for covered outdoor application
- DIN-Rail, wall-mounting and stand-alone installation

## Technical Specification

### Standards Compliance

- IEEE 802.3 10Base-T Ethernet
- IEEE 802.3u 100Base-TX and 100Base-FX Fast Ethernet
- IEEE802.3x Flow Control and Back Pressure
- IEEE802.3af Power over Ethernet

### Hardware Specification

#### Switch Architecture

- Back-plane: 1.0Gbps
- Packet throughput ability: 1.488Mpps @64bytes

#### Transfer Rate

- 14,880pps for 10TX Ethernet port
- 148,800pps for 100TX/FX Fast Ethernet port

#### MAC Address

- 1K MAC address table

#### Protocol

CSMA/CD

#### Connector

- 5x RJ-45 with auto MDI/MDI-X function
- Support 4 PoE injector function

#### Network Cable

- 10Base-T:
  - 2-pair UTP/STP Cat. 3, 4, 5, 5e cable
  - EIA/TIA-568 100-ohm (100m)
- 100Base-TX:
  - 2-pair UTP/STP Cat. 5/5e cable
  - EIA/TIA-568 100-ohm (100m)

#### Network Cable

- Wavelength: 1310nm (Multi-mode/Single-mode)
- Multi mode:
  - 50/125µm ~ 62.5/125µm
  - 2km
- Single mode:
  - 9/125µm
  - 30km

### Physical Specification

#### LED

- Power 1 (Green), Power 2 (Green), Fault (Red)
- Link/Activity (Green), Full duplex/Collision (Yellow)
- Fiber Link/Activity
- Feeding PoE Power (Green)

#### Power Supply

DC 48V with connective removable terminal block

#### Power Consumption

- 4.6Watts (without PoE)
- 58 Watts (Full load with PoE)

#### Operating Humidity

5%~95% (Non-condensing)

#### Operating Temperature

-10°C ~ 60°C (14°F ~ 140°F)

#### Storage Temperature

-40°C ~ 85°C

#### Case Dimension

IP-30, 30mm (W) x 95mm (D) x 140mm (H) (Metal case)

#### Installation

- DIN rail kit for DIN-type cabinet install
- Wall-mount ear for wall mounting

### Certification

#### EMI

- FCC Class A
- CE EN61000-4-2/3/4/5/6/8/11/12
- CE EN61000-6-2
- CE EN61000-6-4

#### Safety

- UL
- cUL
- CE/EN60950-1

#### Stability Testing

- IEC60068-2-32 (Free fall)
- IEC60068-2-27 (Shock)
- IEC60068-2-6 (Vibration)

## Product Diagram



## Order Information

- IFE-0501:** 4-Port PoE w/ 1-Port SC Fiber Industrial Fast Ethernet Switch, Multi-Mode, 2km  
**IFE-0502:** 4-Port PoE w/ 1-Port SC Fiber Industrial Fast Ethernet Switch, Single-Mode 30km