



FiberPlex™ Model FP101E/SFP/BT90/52 Industrial PoE Gigabit Media Converter

User Manual

FCC MARKING

This Equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received; including interference that may cause undesired operation.

CE MARKING

This equipment complies with the requirements relating to electromagnetic compatibility, EN 55032/35 class A for ITE, the essential protection requirement of Council Directive 2014/30/EU on the approximation of the laws of the Member States relating to electromagnetic compatibility.

Company has an on-going policy of upgrading its products and it may be possible that information in this document is not up-to-date. Please check with your local distributors for the latest information. No part of this document can be copied or reproduced in any form without written consent from the company.

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Key Features

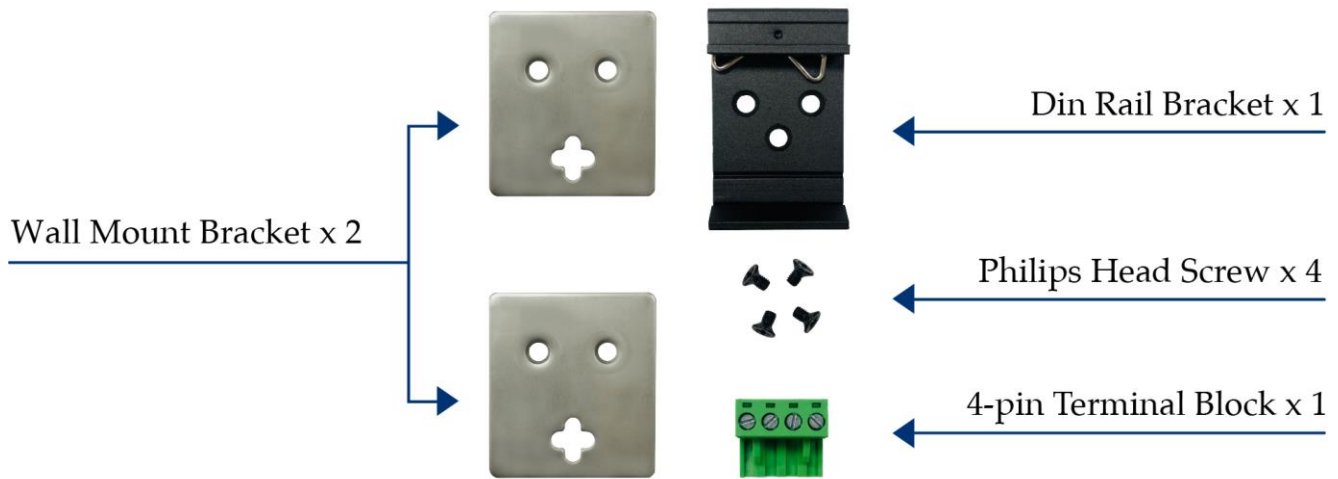
- Hardened design enclosure
- Redundant Dual DC 52V-56V Power Input
- Supports Link Fault Pass through (LFP) function
- Supports automatically switch mode and converter mode
- Adjustable SFP speed 100M or 1000M
- Surge protection on power input
- ESD protection on RJ-45 port
- Provides Far End Fault function on FX
- Provides increased Noise Immunity

Introduction

This rugged Industrial PoE media converter is equipped with a Hardened Main IC to provide a reliable power source to power up your remote PoE device the 90W PoE port is used to power outdoor speed domes, outdoor lamps, and other ultra-high-power PD devices. It is designed for Security, Transportation and Telco applications to expand your network distances. With its multi-purpose design, it can also be Din-Rail or wall mounted. It is an ideal unit for IP surveillance, traffic monitoring and Security application in critical environment. It can tolerate -40°C to 75°C in harsh environment to perform a reliable network.

Installation package

This unit can be din-rail or wall mounted. Din-rail brackets and wall mount brackets are included.



Power connection

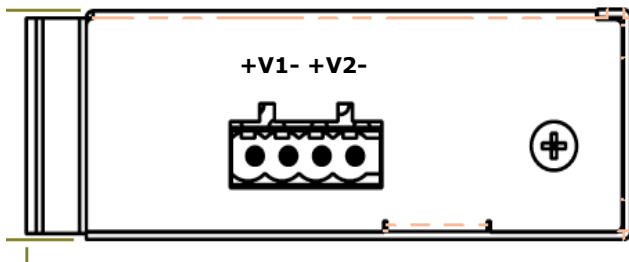
This unit provides a 4 pin terminal block. It can be operated using 52-56VDC power source. Always make sure your input voltage is within this supported voltage range.

To connect power: Follow the printed polarity for V+, V- and Ground. Connect positive wire to V+, connect negative wire to V- and connect neutral wire to ground.

+V1- is for one power input connection.

+V2- is for two power input connection.

Power connecting procedure:



STEP 1 – Take out 4 pin terminal block in the installation package.

STEP 2 – Connect power wires to +V1- or/and +V2- with corresponding polarity. **Connect the grounding wire to the ground screw.**

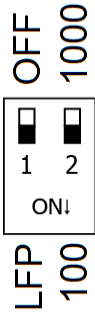
STEP 3 – Plug into terminal block socket shown above. Polarity needs to match V+ and V-.

WARNING -- Always SHUT OFF power source to connect power wire.

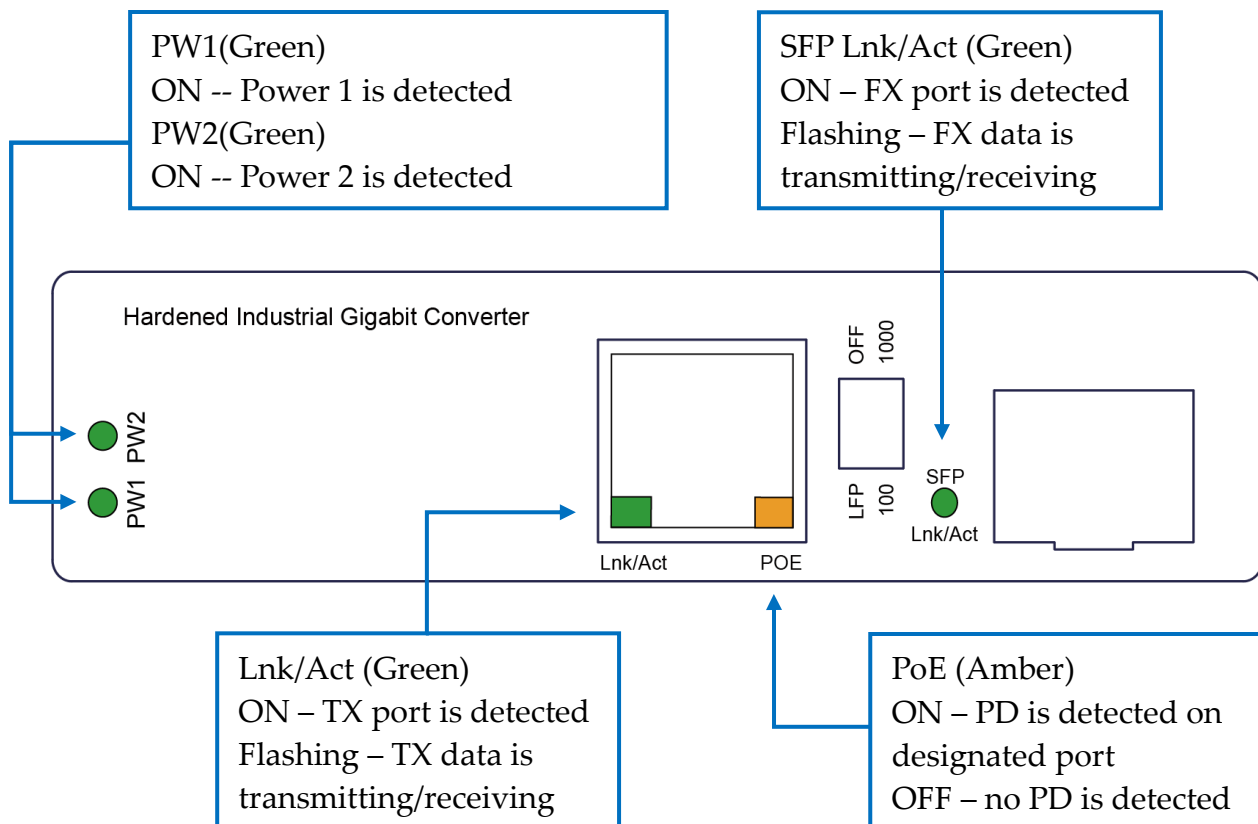
WARNING -- Any exceeded input voltage will not make this unit function and may damage this unit.

Dip switch function

This unit is equipped with dip switches, located on the front panel. Adjusting the dip switches will change the default function of this unit. This unit has set to manufacturer default as: SFP speed 1000M and LFP function OFF as table below. You may change the dip switch setting to match the environment.

	Dip 1	OFF	LFP disabled (Default)
		ON	LFP enabled
	Dip 2	OFF	SFP Speed 1000M (Default)
		ON	SFP Speed 100M

LED indicator

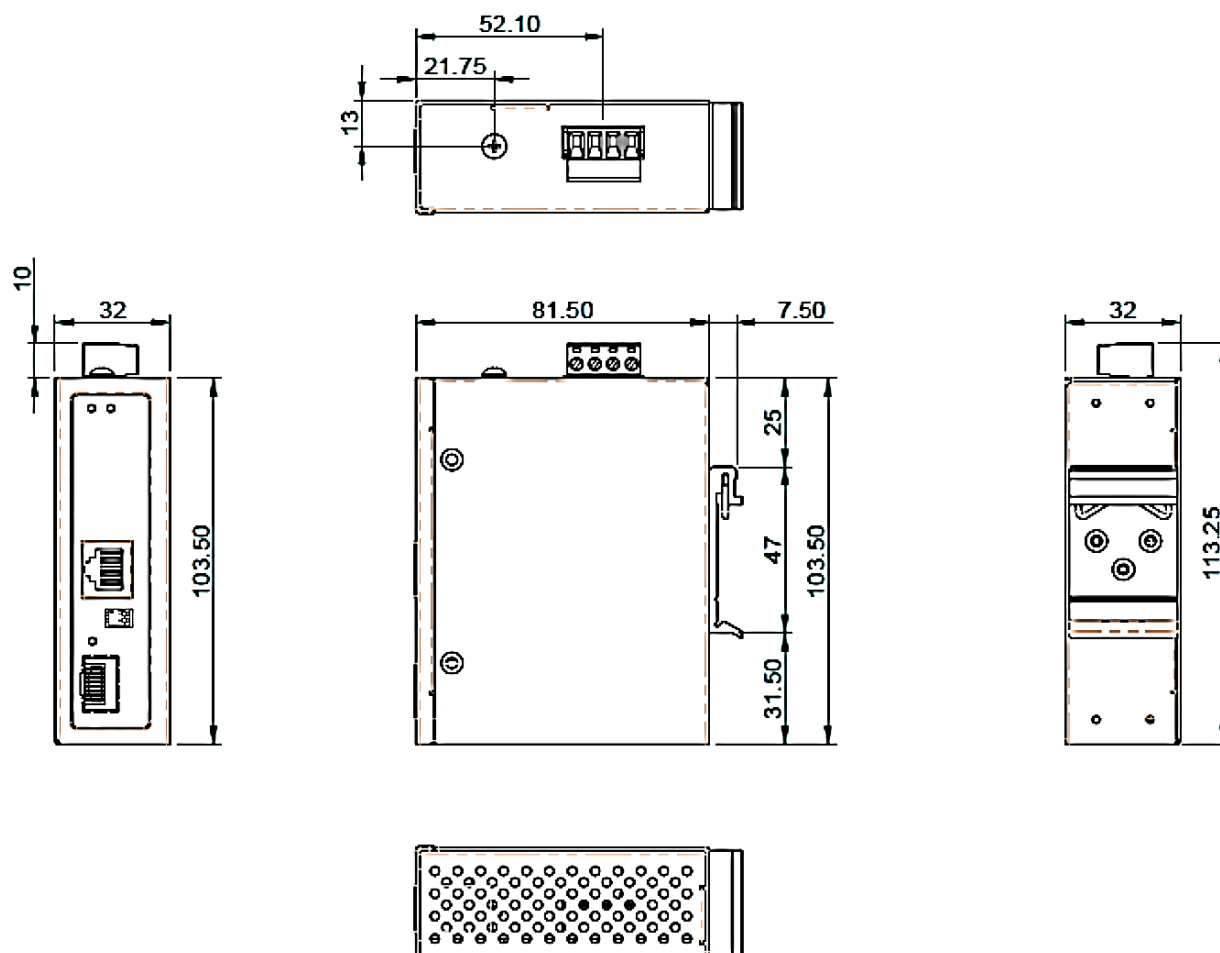


Specifications

IEEE Standard	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3ab 1000Base-T Gigabit Ethernet IEEE 802.3z 1000Base-X Gigabit Ethernet IEEE802.3x Flow Control and Back Pressure, IEEE802.3af PoE IEEE802.3at PoE+ IEEE 802.3bt PoE++
Switch Architecture	Back-plane (Switching Fabric): 4Gbps
Data Processing	Ports speed are the same: Converter mode Ports speed are not the same: Switch mode (store and forward)
Flow Control	IEEE 802.3x Flow Control and Back Pressure
Jumbo Frame	16KB
MAC Address Table Size	1K
Packet Buffer Size	512Kbits
Network Connector	1xRJ-45 10/100/1000BaseT(X)PSE with PoE Output power up to 90Watts 1 x 100/1000M SFP
Network Cable	UTP/STP Cat.5e or above Cable
	EIA/TIA-568 (100m)
Protocol	CSMA/CD
LED	PW1 (Green): ON – Power 1 is detected PW2 (Green): ON – Power 2 is detected
	SFP Lnk/Act (Green): ON – FX port is detected Flashing – FX data is transmitting/receiving
	RJ-45 port: <u>Lnk/Act (Green)</u> : ON – TX port is detected Flashing – TX data is transmitting <u>PoE (Amber)</u> : ON – PD is detected on designated port. OFF – no PD is detected.
PoE Pin Assignment	Pin 1 (V-), 2 (V-), 3 (V+), 6 (V+) Pin 4 (V+), 5 (V+), 7 (V-), 8 (V-)

DIP Switch	DIP1: OFF – LFP disabled (Default) ON – LFP enabled DIP 2: OFF – SFP speed 1000M (Default) ON – SFP speed 100M Link Fault Pass Through (LFP) is when copper side signal lost or disconnect, fiber side link signal will actively off, when fiber side signal lost or disconnect, copper side link signal will also actively off.
Reverse polarity protection	Present
Overload current protection	Present
Power Input	Redundant Dual DC 52V-56V Power Input
Power Consumption	3Watts @52VDC full load without PoE
PoE power	Maximum PoE power 90 Watts at 56VDC input
Removable Terminal Block	Provide 4 pin terminal block Wire range: 0.34mm ² to 2.5mm ² Solid wire (AWG):12-24/14-22 Stranded wire(AWG): 12-24/14-22 Torque:5lb-In/0.5Nm/0.56Nm Wire Strip length: 7-8mm
Operating Temperature	-40°C to 75°C
Operating Humidity	5% to 95% (Non-condensing)
Storage Temperature	-40°C to 85°C
MTBF (mean time between failure)	531,089 hrs (MIL-HDBK-217F) at 50°C
Housing	Rugged Metal,IP30 Protection
Case Dimension (L X W X D)mm	103.5mmx32mmx81.5mm (LxWxD)
Installation	DIN Rail and Wall Mount options included
Certifications	
Safety	LVD (EN62368-1)
EMC	CE, FCC, EN 55032/35
EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 6KV; Air: 8KV IEC 61000-4-4 EFT: Power: 2KV; Signal: 2KV IEC 61000-4-5 Surge: Power: 2KV; Signal: 2KV
Vibration	EN 60068-2-6
Shock	EN 60068-2-27
Free Fall	EN 60068-2-32

Housing Dimension (mm)



NOTE:

Housing dimension is for purpose of showing product Length, Width, Height, din-rail, and terminal block's position and dimension. Please reference the LED Indicator Page for correct port order.