

# FiberPlex™ Industrial 10-Gigabit SFP Media Converter with High Power 90-Watt PoE Injector

## Model FP102E/BT90



*Our high performance industrial 10-gigabit media converter with built in PoE injector capable of up to 95 watts of PoE or PoH is the perfect workhorse for telco and high-performance audio/video-over-IP applications.*

### Extended Operating Temperature

-40 to 167°F (-40 to 75°C) ambient temperature range.

### Flexible Mounting Options

Wall mount, DIN rail, or desktop.

### Rugged

Meets tough EN60068 standards for Free Fall, Shock, and Vibration.

### Plug and Play

Auto-sensing network speeds and PoE compliant power negotiation makes this product incredibly easy to use.

### Full PoE Support

Supports all current options for standards-based PoE including 60W uPoE and 95W Power over HDBaseT (PoH).

### TAA Compliant

Top notch quality and reliability with local support.

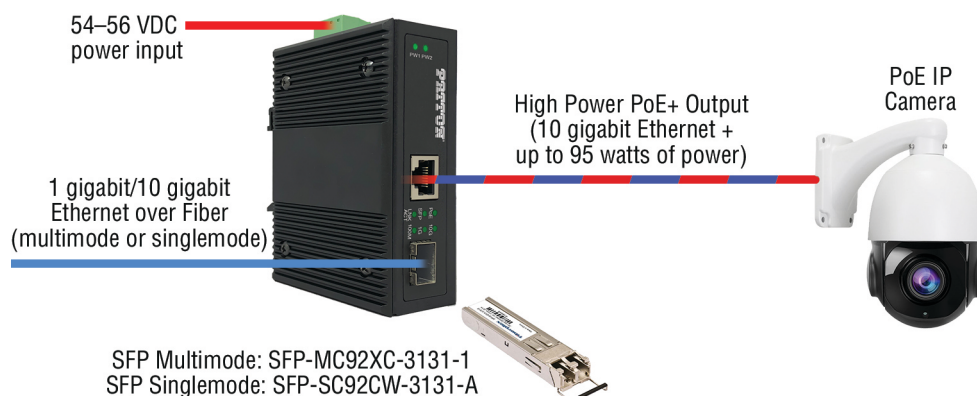
Patton's FP102E/BT90 converts singlemode or multimode fiber to a copper Ethernet signal. With the built-in high power PoE (Power over Ethernet) injector and a local power source, you can easily and reliably extend both power (90 watts/high power PoE) and 1–10 gigabit Ethernet to any PoE enabled end point including devices such as IP security cameras, IP speakers, digital signage, VoIP phones, wireless access points, POS kiosks, BACs, PLCs, and more.

Because 10-gigabit Ethernet over Cat6a cables is limited to about 50 meters (164 feet), using fiber as a backhaul allows for a massive increase in distances. SFP options for multimode can reach up to 1.24 miles (2 km), and singlemode options can range as far as 37 miles (60 km). In addition to the reach, you get fiber's superior immunity to noise and harmful transients (surges).

The FP102E/BT90 is housed in an IP30-rated DIN-rail or wall-mount enabled enclosure, and has a wide operating temperature of -40 to 167°F (-40 to 75°C). Its rugged design and wide temperature range makes it an ideal media converter for industrial or harsh environments. Its bandwidth capabilities make it suitable for bandwidth hungry applications like telecom backhaul, data centers, and AVoIP technologies that require 10-gigabit networks—like SDVoE and HDBase-T.

The Fiberplex 102E/BT90 is very simple to use, completely plug and play. LEDs make it clear when power is detected on the power inputs and when PoE is being delivered. This is a PoE-compliant device, so the amount of power is negotiated automatically by the injector. Should the device you are connecting not be PoE-enabled, the FP102E/BT90 will detect this and not pass power to the connected device.

Visit [patton.com](http://patton.com) to view our huge selection of network connectivity products, SFPs and more.



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## Specifications\*

### Ethernet Interfaces

- 1x1G/10GBASE-X Mbps SFP Port
- 1xRJ-45 1G/10GBASE-T 90W PoE Output (PSE)
- Auto MDI-X / MDI crossover
- Auto Negotiation, 10/100/1000 Mbps
- Auto-Negotiation, Full or Half Duplex

### Networking

- IEEE 802.3x Flow Control and Back Pressure
- Work Mode:
  - 1000Base-T to 1000Base-X
  - 10GBase-T to 10GBase-R

### IEEE Standards

- IEEE 802.3ab 1000Base-T Gigabit Ethernet
- IEEE 802.3an 10GBase-T Ethernet
- IEEE 802.3af for PoE (15W)

- IEEE 802.3at for PoE+ (30W)
- IEEE 802.3bt for 60W and 90W
- PoH 95W Power over HD-BaseT

### Management

- Plug and Play operation
- LEDs:
  - Power 1 and Power 2
  - PoE
  - Copper TX Link & Activity
  - Fiber (SFP) Link & Activity
  - 1G/10G

### PoE Pin Assignment

- Pin 1 (V-), 2 (V-), 3 (V+), 6 (V+)
- Pin 4 (V+), 5 (V+), 7 (V-), 8 (V-)

### Power Input

4-pin terminal block 52–56 VDC input

### Power Input Connector

- Removable 4-pin terminal block
- Wire range: 0.34 to 2.5 mm<sup>2</sup>

- Solid wire (AWG): 12–24/14–22
- Stranded wire (AWG): 12–24/14–22
- Torque: 5lb-In/0.5Nm/0.56Nm
- Wire Strip length: 7–8 mm

### Power Consumption

3 watts at 52 VDC full load

### Max PoE Power

- 70 watts with 56-VDC input at ambient environment of 167°F/75°C
- 90 watts with 56VDC input at ambient environment of 140°F/60°C

### Regulatory Approvals

- Safety: LVD (EN62368-1)
- EMC: CE, FCC, EN55032/24
- 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

- Free Fall: EN60068-2-32
- Shock: EN60068-2-27
- Vibration : EN60068-2-6

### Environmental

#### Ambient Temperature

- Operating: -40 to -167°F (-40 to 75°C)
- Storage: -40 to -185°F (-40 to 85°C)

#### Relative Humidity

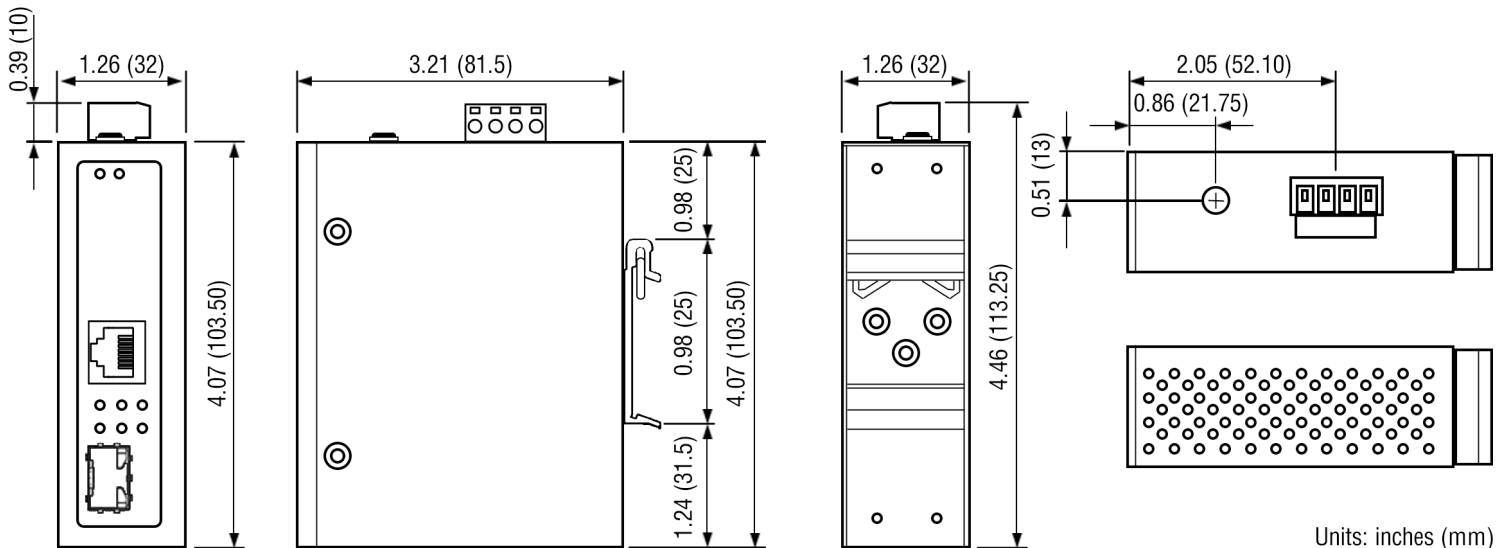
5 to 95% non-condensing

#### Protection Class

IP30

### Physical

- 4.07L x 1.26W x 3.21D inches (103.5L x 32W x 81.5D mm)
- Unit Weight: 2.5 lbs (1.13 kg)
- Shipping Weight: 3.0 lbs (1.36 kg)



Specifications subject to change without notice

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