ZEMFYRE

Single Pair Ethernet System Alliance

ZEM111LP
Media Converter with PoDL/PoE Single Pair Ethernet

Overview

ZEM111LP by Zemfyre Inc. is a 2-port Media Converter with 1 port of Single Pair Ethernet (SPE) 10BASE-T1L and 1 port of 10BASE-T.

It converts RJ45 based 10BASE-T interface to IEC 63171-1 based 10BASE-T1L and vice versa. It enables SPE connectivity that can extend existing Ethernet for up to 1,700m on 10BASE-T1L port.

To facilitate a connection to traditional PoE cameras and sensors ZEM111LP converts input power, either over SPE port with PoDL/SPoE or from an external power supply, and generates PoE power output.

The Media Converter is based on two Ethernet PHY devices connected back-to-back over RMII interface providing lowest possible latency, complete transparency for all types of Ethernet packets and MAC addressing.

ZEM111LP in conjunction with a secure unmanaged switch ZEM601L enables IIoT devices secure Cloud connectivity that facilitates Industry 4.0 adoption.

Port Link/Activity LED indication can assist with immediate system Link status and traffic detection on either of the ports.

ZEM111LP options may include PoE power input with power conversion to PoDL/SPoE Class 10-15.

Features

- 1x 10BASE -T1L Port (IEC 63171-1 Connector) 1x 10BASE-T Port (RJ45 Connector).
- Up to 1700m (5577') reach on 10BASE-T1L Port.
- Up to 100m (330') reach on 10BASE-T Port.
- PoDL Class 10-14 Power Input or auxiliary 24/54VDC External power over a terminal block, polarity-agnostic.
- PoE IEEE802.3af Power Output.
- Both signalling levels, 2.4Vpp and 1Vpp are available on 10BASE-T1L Port for APL compatibility.
- PoDL/AUX/PoE power indication.
- Earth grounding on power terminal block is available.
- Fanless construction in rugged extruded aluminum enclosure.
- Dimensions: 2.7x2.8x1.0" (W×H×D), weight 0.2kg, DIN-rail or panel mounting options.
- -40…+70C temperature range, 5% to 95% relative humidity (non-condensing).
- Patent pending.

• Industry 4.0 • Process Automation • Factory Automation • IIoT • Transportation •
• Building Security/Automation • Smart City • Robotics • Audio/Video Streaming •
Efficient Power Delivery + Security + Range + Seamless Data Aggregation