



ZEM100L Media Converter Single Pair Ethernet

Overview

ZEM100L 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 63171-2 based 10BASE-T1L and vice versa. It enables SPE connectivity that can extend existing Ethernet for up to 1,700m on 10BASE-T1L port.

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.

ZEM100L in conjunction with a secure unmanaged switch ZEM600L enables IIoT devices secure Cloud connectivity that facilitates Industry 4.0 adoption.

Addressing Process Automation industry needs the device support both, 2.4Vpp as well as 1Vpp signaling level selectable by either auto-negotiation with link partner or in hardware by pin strapping for 1Vpp signaling only.

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

ZEM100L options may include either PoE or PoDL/SPoE/APL power sourcing.

Features

- 1x 10BASE -T1L Port (IEC 63171-2 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
- 5-36VDC External power over a terminal block, polarity-agnostic, <1W total power consumption.
- Both signalling levels, 2.4Vpp and 1Vpp are available on 10BASE-T1L Port for APL compatibility.
- Earth grounding on power terminal block is available.
- Fanless construction in rugged ABS plastic.
- Dimensions: 2.5x1.5x0.75" (WxHxD), weight 0.05kg, free standing or panel mounting options.
- -40...+70C temperature range, 5% to 95% relative humidity (non-condensing).

- 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

