



ZEM601L

Secure Unmanaged Switch

(Single Pair Ethernet)

The Zemfyre ZEM601L is a 6-ports DIN-rail secure unmanaged switch with 4 ports of Single Pair Ethernet (SPE) 10BASE-T1L and 2 ports of 10/100BASE-TX. This switch provides secure 10Mb/s connectivity for up to 1,700m, optionally delivering power according to Power over Data Line (PoDL) standard. The patent pending Secure Unmanaged Switch (SUS) technology implemented in ZEM601L provides security, diagnostics, and configuration options. This technology enables IIoT devices secure Cloud connectivity that facilitates Industry 4.0 adoption.



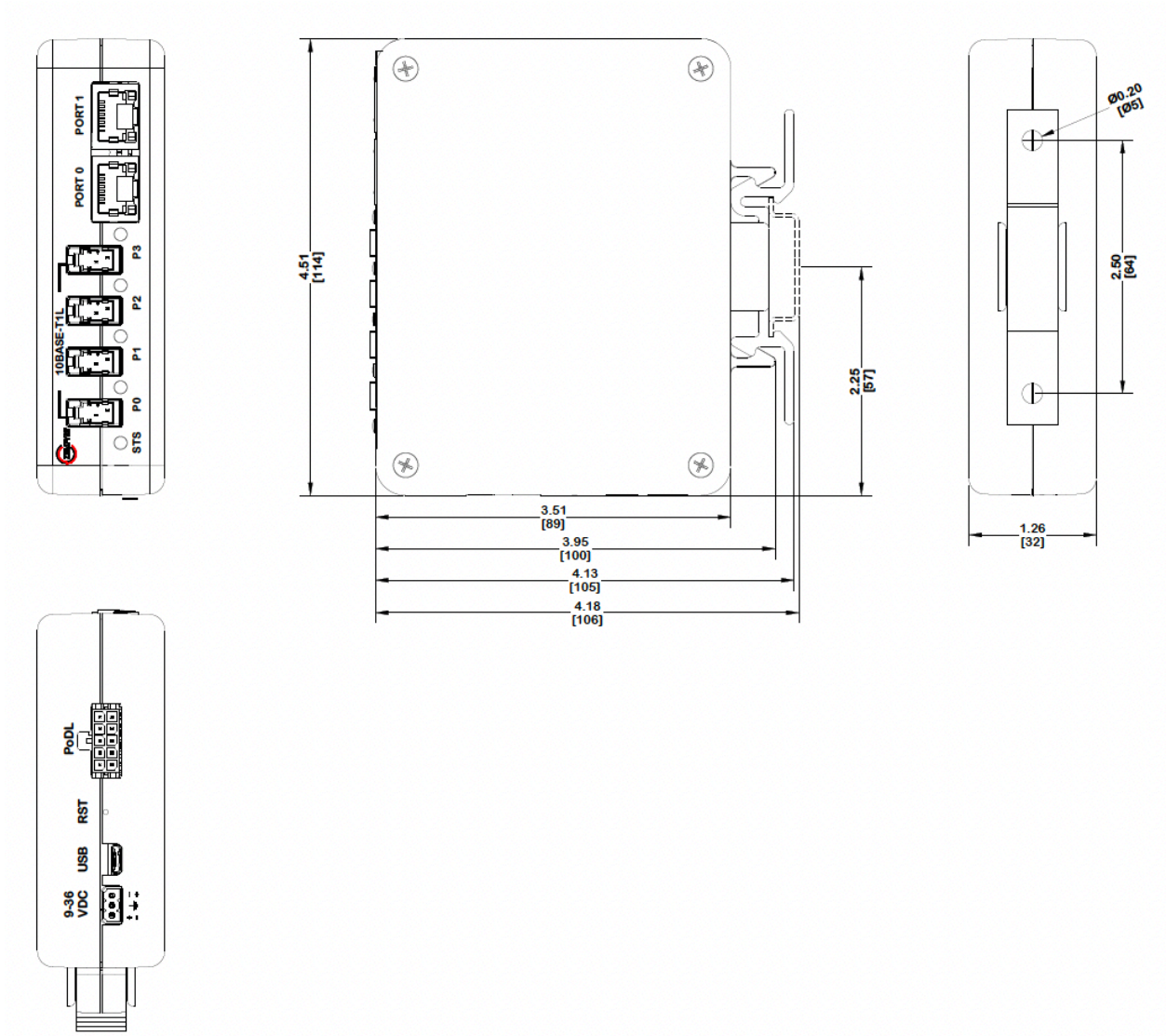
Key Features:

- Ethernet Ports
 - o 4 x 10BASE -T1L Ports (IEC 63171-1 Connector)
 - o 2 x 10/100BASE-T(X) Ports (RJ45 Connector)
- Power
 - o 9-36VDC External power, 3-pos terminal block, 2.5mm
 - o PoDL/SPoE/APL Ready – connect external power source using 10-pos MicroFit
- Security/Configuration Interfaces
 - o USB2.0 - configuration & software upgrade, USB micro-B type
 - o NFC - enables security, diagnostic and configuration framework
- Protocols/Security Support
 - o Time synchronization per IEEE 1588 v2, 802.1AS (on request)
 - o Redundancy/resiliency per RSTP (on request)
 - o High bandwidth Crypto accelerator and key storage based on TPM2.0 (on request)

Product Specifications

Interface	Ports: P0-3 - 10BASE-T1L, IEC 63171-1 Ports: Port 0-1 - 10/100BASE-T(X), RJ45
Standards	IEEE 802.3cg/bu, 10BASE-T1L IEEE 802.3i, 10BASE-T IEEE 802.3u, 100BASE-TX
Distance/Speed	Ports: P0-3 - up to 1,700m, 10Mb/s Ports: Port 0-1 - up to 100m, 10/100Mb/s
LEDs	Port LED - P0-3 - Green: Link/Activity - Port 0-1 - Green: Link/Activity, Yellow: Speed Status (STS) LED - Red - Alarm - Green - Power on - Blue - Port security enabled
Security Diagnostics Configuration	MAC Based port security Port based security IEEE 802.1Q VLAN support NFC Authentication, Configuration TPM 2.0 support Event Logging and Alarms Cable and Link quality (BER/SNR) diagnostics Configuration/ Software upgrade via USB/NFC
Switch Characteristics	MAC Table Size - 1024-entry forwarding table Packet Buffer - 64KB 2KB jumbo packet support MIB counters - 36 per port IPv4/IPv6 QoS support
Power	Power Input: 9-36VDC, 1600VDC transformer isolated Power Terminal: 3-pin 2.5mm pitch plug-in spring-clamp terminal block Power Consumption <3.0W Polarity Agnostic Redundant Power Support with USB2.0 power supplied 4-channel PoDL/SPoE per IEEE 802.3cg Classes 10-14, Ethernet-APL v.1.0
Physical	Housing: Black ABS Textured Plastic Fanless, natural convection cooling Protection Class: IP40 Dimensions: 3.5x4.5x1.25" (W×H×D) Weight: 0.35kg Mounting: DIN-Rail or Panel Mounting
Environmental	-40 to +70C 5 to 95% relative humidity (non-condensing)

Mechanical Drawings



Order Codes

ZEM601L¹ – Mount – PI – PO – SEC – MOD

Mount: Mounting Options

A – No Mounting Option

B – DIN Rail Mounting

C – Panel Mounting*

PI: Power Input Options

Two Digits - {Main, PoDL}

Main – Main Device Power

1 – LV (9-36VDC)

2 – MV (18-72VDC)*

PoDL – PoDL/SPoE Power Input

0 – PoDL Power Connector not Installed

1 – PoDL Power Connector Installed,
20-30VDC or 50-58VDC

PO- Power Output Options

Two Digits - {PoDL, PoE}

PoDL² – PoDL/SPoE Power Output

0 – no PoDL power

1 – PoDL Class 10-14³

2 – PoDL Class 15*

PoE* – PoE Power Output

0 – no PoE option

1 – PoE*

SEC - Security Options

00 – no security

01 – NFC, no Security Chip

02 – NFC with Security Chip*

MOD: Modifications

00 – No modifications

01 – Conformal coating

Example Order Codes

ZEM601L – B – 11 – 10 – 01- 00

DIN rail mount, LV Main Power, All SPE ports support PoDL Class 10-12 @ AUX power 20-30VDC or Class 13-14 @ AUX power 50-58VDC, no PoE output, NFC without Security Chip, No modifications

Notes:

1 - Every unit will be shipped with Power Terminal receptacle.

2 - If PoDL Power Input Connector is not installed, there is no PoDL power output

3 - For PoDL Class 13-14 AUX power input must be 50-58VDC, For PoDL Class 10-12 AUX power input must be 20-30VDC

** – Currently not supported. Please contact the company for availability*