



ZUS801LP Universal Environmental Sensor Single Pair Ethernet

Overview

ZUS801LP by Zemfyre Inc. is a Universal Environmental Sensor simultaneously measuring 8 ambient parameters:

- ambient air quality, temperature, pressure and humidity;
- ambient light and sound,
- object proximity and sensor's acceleration.

The sensor data runs on Single Pair Ethernet (SPE) physical layer 10BASE-T1L while taking power on the same pair of wires according to Power over Data Line (PoDL) standard.

ZUS801LP provides secure 10Mb/s connectivity for up to 1,700m, supporting MQTT protocol.

Communication security is ensured by implementing a Secure Element (SE) based on Cryptographic Authentication Device.

The sensor also supports numerous diagnostic, calibration and configuration options, including AI-assisted model-based event recognition.

This technology is ideal fit for Smart Homes, Building Automation, Smart City, Security and Energy/Light saving applications.

Features

- Independent and simultaneous measurement of 8 ambient parameters.
- Easy connectivity on IEC 63171-1 SPE connector with Link/Act and multicolor Status LED for quick diagnostic.
- Supports MQTT protocol as Publisher.
- Secure deployment and authenticated Field software upgrade with secure boot.
- Support Powered Device (PD) per PoDL/SPoE Class 13 for 50-58VDC or Class 10/11 for 20-30VDC host supply (IEEE802.3cg).
- Crypto accelerator with secure key storage and RNG allowing data encryption/decryption for TLS1.2 and 1.3.
- Secure deployment and authenticated Field software upgrade support.
- Small, low weight and low power device in rugged ABS plastic.
- Standard camera ¼" screw attachment allowing easily pointing the sensor to the required direction or setting the orientation.
- Dimensions: 2.5x2.5x1.0" (WxHxD), weight 0.1kg.
- -40...+70C temperature range, 5% to 95% relative humidity (non-condensing).

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• Building Security/Automation • Smart City • Robotics • Audio/Video Streaming •
Efficient Power Delivery + Security + Range + Seamless Data Aggregation

