

# **EO2Px Series**



# ETHERNET OVER 2-WIRE EXTENDER WITH POE+

## (1) 10/100/1000Base RJ-45/SFP Combo Port + (1) 1000Base-T RJ-45 Port or 2-Wire Terminal Block

Lantronix Ethernet Over 2-Wire Extender With PoE+ provides the ability to quickly and easily upgrade Ethernet networks with modern PoE powered IP devices without the need to replace the existing copper wire infrastructure. The extenders leverage existing 18-24 AWG unshielded twisted pair (CAT 5, CAT 3 and other twisted 2-wire phone wire) cabling infrastructure to extend the Ethernet network at half Gigabit speeds and provide data and power to IP devices in remote locations, saving time and money over installing new cable.

The Ethernet Over 2-Wire Extenders With PoE+ are used in pairs, with a local device at one end and a remote device at the other end of the copper link. The extenders provide flexibility for connecting to either copper or fiber Ethernet network equipment. The Local device offers a 10/100/1000Base-T RJ-45 and 100/1000Base-X open SFP combo port and a RJ-45 or 2-wire terminal block connection to provide safety extra low voltage (SELV) power over UTP or twisted 2-wire to the Remote device. The Remote device receives power through the RJ-45 or 2-wire terminal block connection and provides a 10/100/1000Base-T RJ-45 output with PoE+ power or a 100/1000Base-X open SFP combo port connection for IP cameras, wireless access points or other PoE powered end devices.

Power for the Local device can be supplied through a properly isolated +48VDC power source or through the designated 90 Watt power adapter. Power for the Remote device can be supplied with PoE from the Local unit, through a properly isolated +48VDC power source, or through the designated power adapter for providing redundant power or for additional power requirements at the Remote device.

The Ethernet Over 2-Wire Extenders With PoE+ are supplied with a web GUI, which allows password-protected access to various configuration options of both the Local and Remote devices through a single IP address. It also allows easy upgrades to firmware.

#### Perfect For:

The Ethernet Over 2-Wire Extenders With PoE+ allow utilization of existing 2-wire cabling infrastructure for:

- Conversion of analog surveillance systems to IP-based cameras
- Extending network connectivity and power to IP devices in remote locations
- Bridging between two networks using a 2-wire infrastructure

## **Top Features:**

- Half Gigabit Communication Speeds
  Provide sufficient bandwidth for many different applications
- IEEE 802.3af/at Compliant Remote PoE+ Port
  - Ensures compatibility with other IEEE 802.3af/at compliant PoE/PoE+ powered devices and provides full PoE+ to camera or other remote IP devices
- PoE+ End Device Classification
  - Extenders use proprietary UTP end device classification to prevent unintended powering of other remote devices
- Auto Power Reset
  - PoE+ connected device can be monitored and power cycled/rebooted in the event it becomes unresponsive, eliminating the need to dispatch service technicians for simple power resets
  - Copper and Fiber Connections
    - Gigabit copper and SFP combo port connections provide network connection flexibility
- SELV Power over 2-Wire
  - Eliminates need for electricians and power outlets at the remote location, allowing for maximum flexibility on the location of remote devices
- User-Friendly Web GUI
  - Both the Local and Remote devices can be configured and managed through the included web GUI using a single IP address





# Specifications

## **Standards**

 IEEE 802.1p, IEEE 802.1Q, IEEE 802.3, IEEE 802.3ab, IEEE 802.3af/at, IEEE 802.3az, IEEE 802.3u, IEEE 802.3x, IEEE 802.3z

#### Network Interface

- Ethernet: 10/100/1000Base-T RJ-45 or 100/1000Base-X SFP Combo port
- 2-Wire: 10/100/1000Base-T RJ-45 or 2-wire terminal block port
- PoE: 10/100/1000Base-T RJ-45 PoE+ port

#### Security

- · Web browser configurable
- · Field upgradeable firmware
- · Can be managed through a single IP address
- Auto-MDI/MDIX
- 128 Bit AES encryption over 2-wire
- · IPv4 and IPv6 supported
- · Client for DHCP, DNS, NTP
- · Connection for optional power on Remote device

#### **Environmental**

- Operating: 0° to +65° C
- · Ingress Protection: IP30

- · Humidity: 5% to 95% (non-condensing)
- Altitude: 0 10,000 ft.
- Storage: -40° to +85° C

#### **Power**

- 45 Watts (max) Power Consumption
- · E02PSE: 4 Watts
- EO2PD: 4.4 Watts
- · Power Input: 48 VDC

#### Certifications

- · Safety: External Power Supply: CE Mark
- Emissions: FCC Part 15, CISPR22/ EN55022 Class A
- Immunity: EN55024

#### **MTBF**

· Greater than 200,000 MIL-HDBK-217F Hours

#### **Dimensions**

- · 136.7 mm (5.38 in) L
- 31.75 mm (1.25 in) H
- 82.5 mm (3.25 in) W
- Weight: 0.48 kg (1.05 lbs.)

#### Warranty

· 5 years

## **More Features**

- Copper or fiber combo Ethernet port
- · IEEE 802.3af/at compliant Remote PoE+ port for powering cameras or other remote devices
- Full PoE+ at 335-1,500 ft. over a single pair or 1,500-6,800 ft. over multiple pairs\* (dependent on cable type)
- Half-Gigabit Ethernet speeds over UTP cable at distances of 330 feet (100m) or Fast Ethernet speeds at approximately 1800 feet (550m) (dependent on wire gauge\*)
- Proprietary SELV classification prevents unintended power delivery to non-Transition Networks devices
- Power monitoring
- Auto Power Reset (APR) and power-saving mode
- Plug-and-Play installation
- Preserves investment in existing UTP or twisted 2-wire infrastructure

\*Minimum distance stated is 24 AWG cable DC resistance of 29.9 ohm per 1000 ft. Cable with less DC resistance will increase distance. Use of multiple pairs vs a single twisted pair will increase distance and available power. To determine power distance for specific cable types, refer to online calculator.

## Ordering Information

Part Number	Description
E02PSE4052-111 (Local)	(1) 10/100/1000Base-T RJ-45 port or (1) 100/1000Base-X SFP combo port + (1) 10/100/1000Base RJ-45 or 2-Wire Terminal Block combo port
E02PD4052-111 (Remote)	(1) 10/100/1000Base-T RJ-45 port or 2-Wire Terminal Block combo port + (1) 10/100/1000Base-T IEEE 802.3af/at or (1) 100/1000Base-X SFP combo port

Note: Local and Remote must be used as a pair. A properly isolated power source is required for each Local unit and an external power supply is optional for Remote units depending on power requirements.

Industrial Power Supplies (sold separately)	Description
25148 (Power Adapter)	90 ~ 264 VAC; 127 ~ 370 VDC (Country specific power cord included - See Below)

#### **Power Cord Included With 25148**

To order the corresponding country specific power cord, add the extension from the list below to the end of the SKU; Ex: 25148--NA

## -NA = Country Code

-NA = North America	-LA = Latin America	-EU = Europe
-UK = United Kingdom	-SA = South Africa	-JP = Japan
-O7 = Δustralia	-BR = Brazil	

# **Optional Accessories**

(sold separately)

SFP Modules

Mounting Options (sold separately)	Description
WMBL	Wall Mount Bracket 4" [102 mm]
WMBD	DIN Rail Bracket 5" [127 mm]
WMBD-F	DIN Rail Bracket (flat) 3.3" [82 mm]
WMBV	Vertical Wall Mount Bracket 5" [127 mm]
RMS19-SA4-02	4-Slot Media Converter Shelf, includes 4 brackets and 3 slot blanks

