

Pace1KR

Long Range Single Pair (UTP) Ethernet Media Adapter/Receiver

Altronix Pace1KR is a long-range Ethernet adapter that transmits data and power via twisted pair (2-wire, UTP or shielded) in a PoE(+) compliant format. In addition to new SPE (UTP) Ethernet network installations for Surveillance-cameras/Security/Industrial/BMS/HVAC & Elevator Controllers, applications include upgrading of legacy networks, i.e. LONworks, RS485, 4-20ma Control Loops, etc. by using the existing two wire cabling, thus saving rip-out & reinstallation costs.

Operationally, the Pace1KR is connected to a PoE midspan/endspan switch at the headend and passes network data and power to the Pace transceiver (see List of Compatible Altronix Transceivers, pg. 4) from the switch via UTP up to 1km (1,000m, 3,280 ft.) to a remote 10/100 PoE device, such as a camera. For non-PoE remote devices, data only is transmitted.



Key Features

- Provides SPE (single pair Ethernet) over twisted pair (2-wire, UTP or shielded) or 16/2 AWG or higher wire up to 1km (1,000m, 3,280 ft.)
- Utilize twisted pair for new installations or retrofit of IP devices over existing twisted pair cabling
- Cost-effective solution to facilitate IP devices that need to be installed at longer distances such as in elevator shafts, tunnels, bridges, HVAC, and more...
- PoE, IEEE 802.3af (15W) and IEEE 802.3at (25W) compliant
- Auto detection allows it to safely work with non-PoE cameras/devices
- Works with Megapixel, HD720, HD1080 & VGA (SD) cameras

- Extends Network link distance in an industrial environment
- Building Automation, Elevator Systems, HVAC, Lighting, Surveillance & Security
- Utilize twisted pair for new installations or retrofit of IP devices over existing twisted pair cabling
- Compatible with Pace1KT, Pace2KT, Pace1KL12S, Pace1KL24S receivers
- CE European Conformity
- Lifetime Warranty

Typical Application Diagram

Pace1KT is shown. Applications are similar with other Pace Transceivers.

Mounting Hole Pace1KR Altronix Pace1KR - Receiver UTP Receiver RMG LEBD Yellow Activity Green - Speed Green - Speed Green - Speed Green - Link UTP Link Link Page Link UTP Link Link Page Link UTP Link Link Page (or higher) POE Powered Switch or Midspan

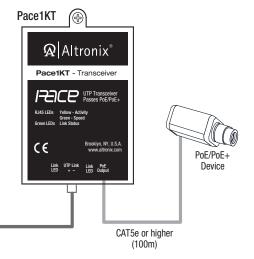
(100m)

Maximum Length of Cable Type vs. Total Power Consumption

| Wire type | Total Power Consumption | Max. Data Distance | Max. Power Distance |
|------------------------|----------------------------|-----------------------|------------------------|
| 18 AWG (2-wire/UTP) | 7.5W | 1,000m (3,280 ft.) | 1,996m (6,548 ft.) |
| | 15W | 1,000m (3,280 ft.) | 998m (3,274 ft.) |
| | 25W | 1,000m (3,280 ft.) | 269m (882 ft.) |
| 16 AWG (2-wire/UTP) | 7.5W | 1,000m (3,280 ft.) | 3,169m (10,396 ft.) |
| | 15W | 1,000m (3,280 ft.) | 1,584m (5,196 ft.) |
| | 25W | 1,000m (3,280 ft.) | 427m (1,400 ft.) |

See Maximum Length of Cable Type vs. Total Power Consumption chart

1000m twisted pair



Lifetime Warranty



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Specifications

Input

Powered by midspan or endspan PoE compliant to IEEE 802.3af (15W) and PoE+ compliant to IEEE 802.3at (25W)

UTP Connection

Wire type: Twisted pair (2-wire, UTP or shielded)

Distance: 1km (1,000m, 3,280 ft.),

16/2 AWG or higher @ 10Mbps

(see Maximum Length of Cable Type vs. Total Power

Consumption chart on pg. 1)

Ethernet Connection

Connectivity: RJ45, auto-crossover Wire type: 4-pair, CAT5e or higher

Distance: up to 100m from midspan to Pace1KR receiver

(headend), 100m from Pace transceiver to device Speed: 10/100BaseT, half/full duplex, auto negotiation.

PoE: IEEE 802.3af (15W) and PoE+ compliant to IEEE 802.3at (25W) delivered to device by Pace1KR Power provided by

Pace1KR to Pace transceiver by PoE protocol

Indicators (LED)

Green LED (left): PoE (link)

Green LED (right): Data transmission (link)
Yellow and Green LED (by RJ45 jack):

IP Link status, 10/100Base-T/active

Agency Listings

CE European Conformity

Physical and Environmental

Dimensions (W x L x H)

Enclosure: 2.5" x 3.8" x 1" (63.5mm x 96.5mm x 25.4mm) Shipping: 8" x 6" x 5" (203.2mm x 152.4mm x 127mm)

Weight (approx.)

Product: 0.22 lb. (0.1 kg) Shipping: 0.4 lb. (0.18 kg)

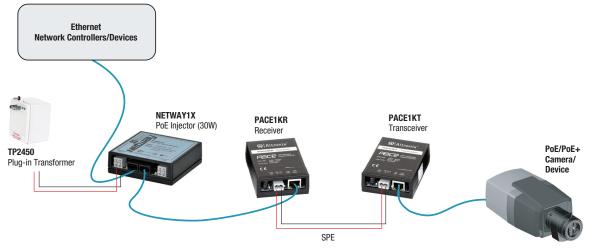
Temperature

Operating: -40°C to 75°C (-40° to 167°F) Storage: -40°C to 75°C (-40° to 167°F)

Relative Humidity 85% +/- 5%
Operating Altitude -304.8 to 2,000m

Typical Operation Diagram

Multi-point SPE Application utilizing Altronix PoE Injector and PoE Splitter(s)



For dual port connectivity please see kit model: Pace2KRT