periTUNNEL
Long Distance Ethernet Bridge

The periTUNNEL is a robust Ethernet bridging solution designed to extend your Ethernet over long distances using existing 2- or 4-wire cabling not originally intended for Ethernet. Equipped with RJ45 connectors and fully compatible with Single Pair Ethernet, it delivers speeds up to 100 Mbps and distances of up to 1000 meters. As a plug-and-play component and equipped with USB-C powering, it facilitates quick and easy Ethernet use in previously unfeasible scenarios such as agricultural infrastructure, residential complexes or remote industrial sites.

Targeted Applications

- Tunnelling Ethernet over non-Ethernet, existing, legacy cabling
- Extending Ethernet range
- Media conversion to SPE
- Connecting remote network devices

Pin Out Tunnel Connector

 USB-C

1 2 3 4 5 6

Figure 1: har-flexicon (left) and USB-C (right)

Pin	Description	
1	24VDC	secondary supply
2	GND (0V)	
3	Data Pair 2(+)	10Mbit/s,
4	Data Pair 2(-)	100Mbit/s
5	Data Pair 1(+)	with
6	Data Pair 1(-)	1- or 2-pair(s)
USB-C	Power only (5VDC)	primary supply

Operational Parameters

Temperature range: -40°C to +85°C
Operating voltage: 5V USB-C or 24V DC
Power consumption: 1W

Housing

Material: Aluminium
Ingress Protection Class: IP20
Dimensions: 23.9 x 24.3 x 100mm

Compliance

- RoHS 3 (EU 2015/863), WEEE (2012/19/EU), REACH, CE
- Immunity standard according to IEC 61000-6-2:2016
- Emission standard according to IEC 61000-6-3:2020

Product Summary, rev: 3
2025-06-24

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Key Features

- Works out of the box
- Selects highest working bandwidth automatically
- Ethernet and SPE (100Base-T1) compatible

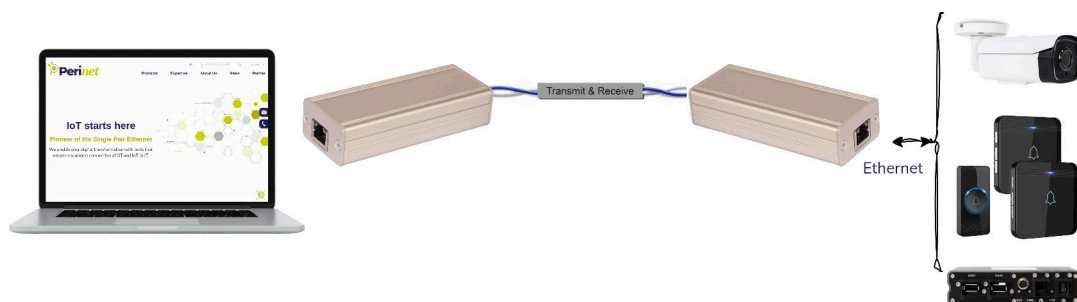| Speed	Cabling U/UTP	Range
100Mbit/s	2-wire CAT.5e	300m
100Mbit/s	4-wire CAT 5e	500m
10Mbit/s	2-wire CAT.5e	800m

Technical Applications

Figure 2: periTUNNEL Set RJ45-RJ45
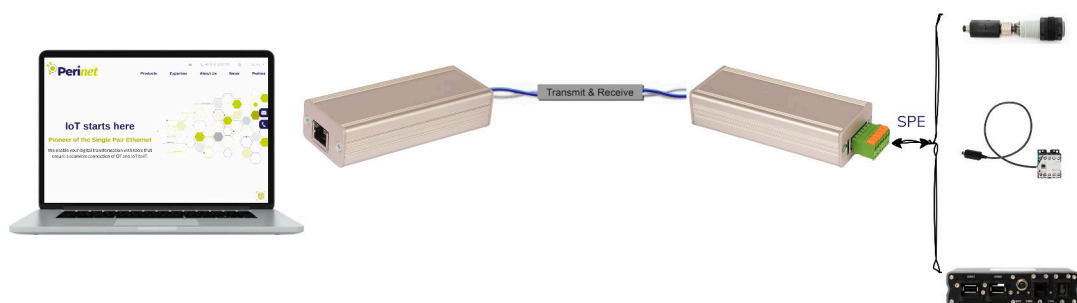
Figure 3: periTUNNEL Set RJ45-SPE

Ordering Information

Ordering Code	Product Name	Description
PRN.000.073	periTUNNEL Set RJ45-RJ45	Long Distance Ethernet Tunnel
PRN.000.074	periTUNNEL Set RJ45-SPE	Long Distance Ethernet to Single-Pair-Ethernet Tunnel

Related Products

Ordering Code	Product Name	Description
PRN.000.002	periNODE 0-10V	Smart adapter for 0 to 10V signal type
PRN.000.010	periNODE GPIO	Smart adapter for GPIO signal type
PRN.000.017	periLINE 0.2m	Hybrid SPE cable assembly (lengths 0.2m, 1m, 5m)

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