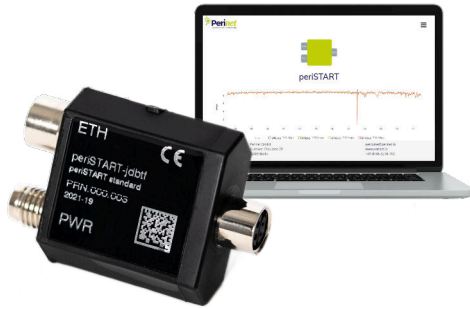


periSTART standard

Smart hybrid-Single Pair Ethernet Media Converter



The periSTART standard media converter facilitates the connection of networks using 100BaseTX (Fast Ethernet) and 100BaseT1 (Single Pair Ethernet), ensuring seamless communication between your IT system and sensors/actuators. It serves as the crucial connection point between widely common IT networks and Perinet's IoT system, providing a 24VDC power supply to the components within the IoT network. The network components within the IoT network are interconnected using 4-wire periLINE hybrid cables, which combine communication and power supply.

Targeted Applications

- Industrial sensors
- IoT / IIoT
- Remote sensor access
- Building automation

Key Features

- **100Mbps** Single Pair Ethernet (100BASE-T1, IEEE 802.3bw)
- 24V power supplied via **hybrid network cable**
- **End-to-end encryption with RBAC**
- Integrated Software Stacks: TCP/IPv6, mTLS, MQTTs, HTTPs, mDNS, DNS-SD
- Integrated WebUI & RESTful API
- Supports remote firmware updates
- auto discovery (**Zeroconf** networking)
- patent-protected

Operational Parameters

- Operating voltage: 24VDC input
- Supply Voltage: 24V output (2A max)
- Temperature range: -40°C to +70°C
- Power consumption: 0.6W

Housing

- Material: Hotmelt
- Ingress Protection Class: IP65/67

Infrastructre Interface Power In

- **Data:** M8 A-coded female, 100BASE-TX (Figure 1-left)
- **Power:** M8 A-coded male, 24VDC in (Figure 1-right)

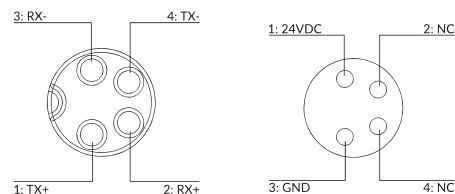


Figure 1: Data (left) and Power (right)

Network Interfaces Power Out

- **Type:** M8-hybrid female connector, style 6J-M8C w/o shielding (IEC 63171-6:2021) (Figure 2)
- **Com.:** 100BASE-T1 (IEEE 802.3bw)
- **Power:** 24VDC out

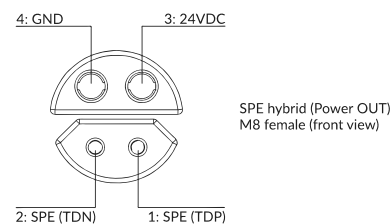


Figure 2: M8-hybrid female connector

Compliance

- CRA ready
- 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

Security

- NIST compliant TLS implementation
- Role Based Access Control (RBAC)
- Certificate based client authentication
- AES encryption algorithm
- X.509 certificates and PKIX path validation
- Elliptic Curve Cryptography (ECC)

Mechanical Dimensions

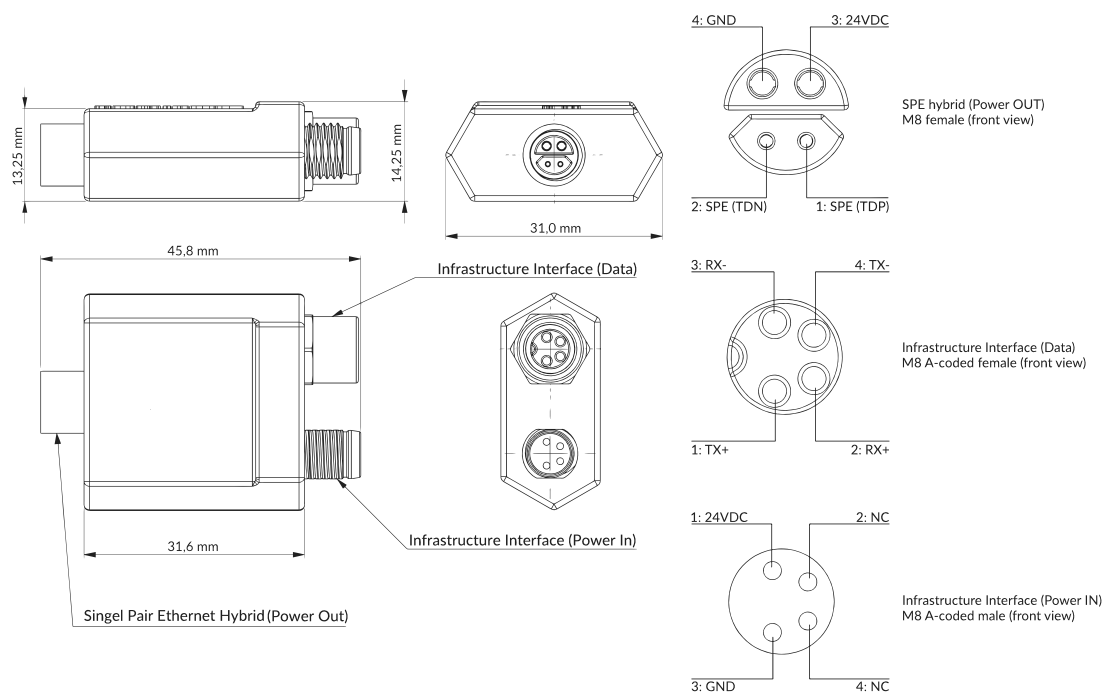


Figure 3: Mechanical Dimensions

Ordering Information

Ordering Code	Product Name	Description
PRN.000.003	periSTART standard	hybrid SPE media converter with M8 connector.

Support Products

Ordering Code	Product Name	Description
PRN.000.002	periNODE 0-10V	smart adapter for 0 to 10V signal type.
PRN.000.006	periNODE Pt100	smart adapter for Pt100 based RTDs.
PRN.000.010	periNODE GPIO	smart adapter for GPIO signal type.
PRN.000.008	periSWITCH 3-port	hybrid SPE 3-port switch with M8 connectors.
PRN.000.017	periLINE 0.2m	hybrid SPE cable assembly (lengths 0.2m, 1m, 5m)