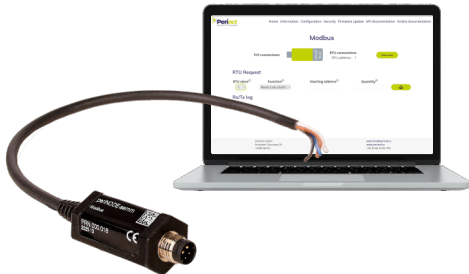




periNODE Modbus

Single Pair Ethernet to Modbus RTU adapter



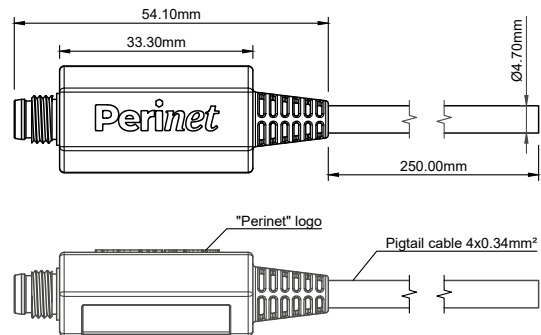
The *periNODE Modbus* connects existing Modbus RTU devices to the IT-based infrastructure via Single Pair Ethernet.

It makes Modbus RTU devices CRA compliant through state-of-the-art security measures while adding key features like remote firmware updates, automatic device discovery as well as a RESTful API for automated access.

Key Features

- Fully operational with One Cable
- Integrated Software Stacks: TCP/IPv6, mTLS, HTTPs, RESTful API
- Integrated WebUI & RESTful API
- Based on sève OS, an Operating System for Things
- Customizable Firmware
- On device value transformation (Polynomial calculation)

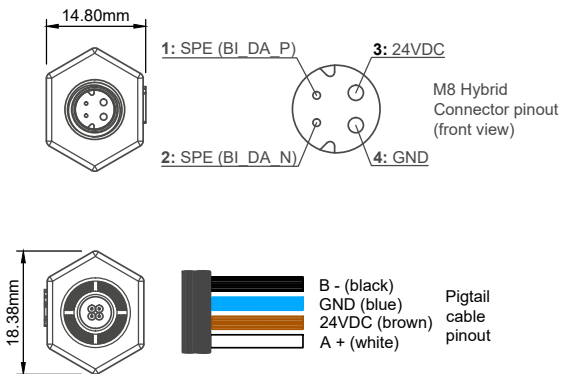
Dimensions & Pinout



periNODE Modbus's dimensions in mm.

Interfaces

- 100BASE-T1 Phy (IEEE 802.3bw, IEC 63717-6)
- Modbus RTU (RS-485)
- Secured Modbus TCP (mTLS)
- HTTPs RESTful API for configuration



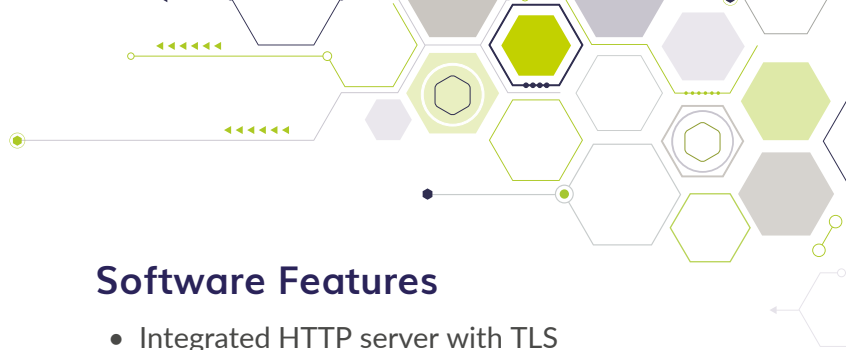
periNODE Modbus's connector pinning.

Operational Parameters

Operating voltage:	24VDC input
Supply Voltage:	24V output (2A max)
Temperature range:	-40°C to +70°C
Power consumption:	0.6W
Max Baud Rate:	1Mbaud
Protection Class:	IP 65/67

Compliance

- RoHS 3 (EU 2015/863)
- WEEE (2012/19/EU)
- REACH
- CE



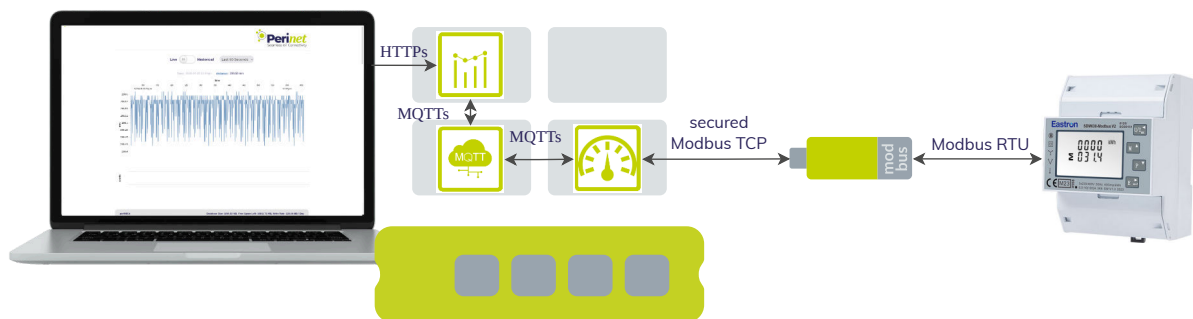
Security

- 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)

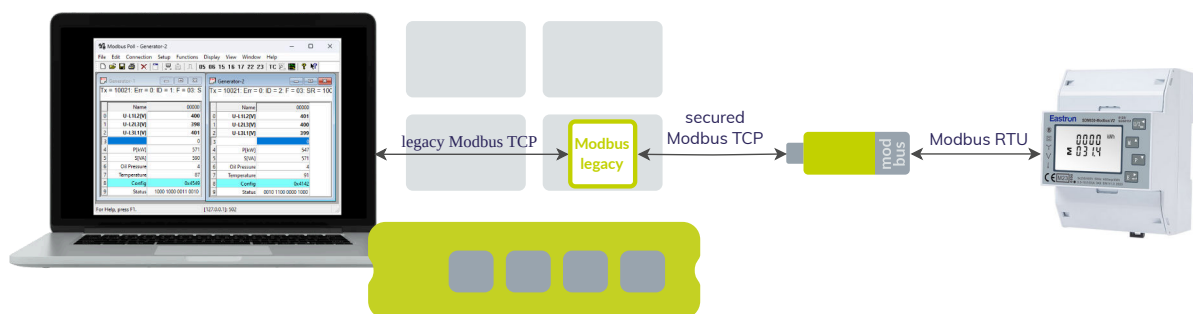
Software Features

- Integrated HTTP server with TLS
- Mutual TLS (mTLS) based Authentication
- Integrated MQTT-client, with mTLS
- Zero-configuration (mDNS and DNS-SD)
- Full TCP/IPv6 communication stack
- LifeCycle Management, remote firmware update

Typical Application



Typical installation of the periNODE Modbus



Typical installation of the periNODE Modbus with legacy Modbus clients.

Ordering Information

Ordering Code	Product Name	Description
PRN.000.018	periNODE Modbus	Single Pair Ethernet Modbus RTU device adapter
Companion Products		
PRN.000.008	periSWITCH 3-port	3-port hybrid SPE switch
PRN.000.003	periSTART standard	Media converter from SPE to standard Ethernet
PRN.000.017	periLINE 0.2m	Hybrid SPE cable with M8 connectors
PRN.000.025	periMICA	Open modular edge computer
PRN.000.020	periCORE Development Kit	Full featured firmware development setup

