

periSNOOP 4-20mA

Single Pair Ethernet sensor monitoring device



The *periSNOOP 4-20mA* easily integrates into 4-20mA sensor to PLC loops, digitizing sensor readings without the need for modifying existing installations. This digitization makes sensor data more accessible through Single Pair Ethernet, utilizing the perICORE SPE communication module. Key features of the *periSNOOP 4-20mA* include state-of-the-art security measures, the ability to update firmware remotely, and TCP/IPv6-based communication capabilities and a RESTful API. Additionally, its hardware is specifically designed for safety, providing protection against overcurrent and similar malfunctions.

Key Features

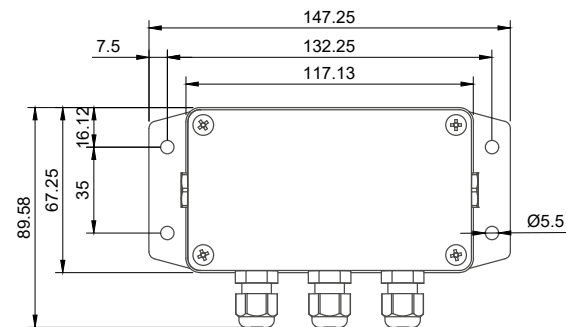
- Integrable into existing applications
- No influence on sensor current loop
- Converts 4-20mA analog signals to digital format
- 16-bit ADC resolution
- Supports Daisy Chain topology
- Supports remote firmware updates
- Operates on 24V power supplied via hybrid network cable
- Two 100BASE-T1 Single Pair Ethernet interfaces
- Integrated Software Stacks: TCP/IPv6, mTLS, MQTTs, HTTPs, RESTful API
- End-to-end encryption
- Integrated WebUI & RESTful API
- No-Code Firmware, adoptable to multiple sensors

Interfaces

- 2 x 100BASE-T1 Phy (IEEE 802.3bw)
- 1 x 24VDC Power input
- 1 x 24VDC Power output
- 1 x 4-20mA input
- 1 x 4-20mA output
- HTTPs RESTful API, for configuration
- MQTTClient, for data flow
- C++20 library for custom firmware development

Dimensions

Typical(L/W/H) 147.25 x 89.58 x 52.02 mm



periSNOOP 4-20mA's dimensions in mm.

Operational Parameters

- Operating voltage: 24VDC input
- Supply Voltage: 24V output (2A max)
- Temperature range: -40°C to +85°C
- Power consumption: 1.1W
- Accuracy: 0.2 %

Compliance

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



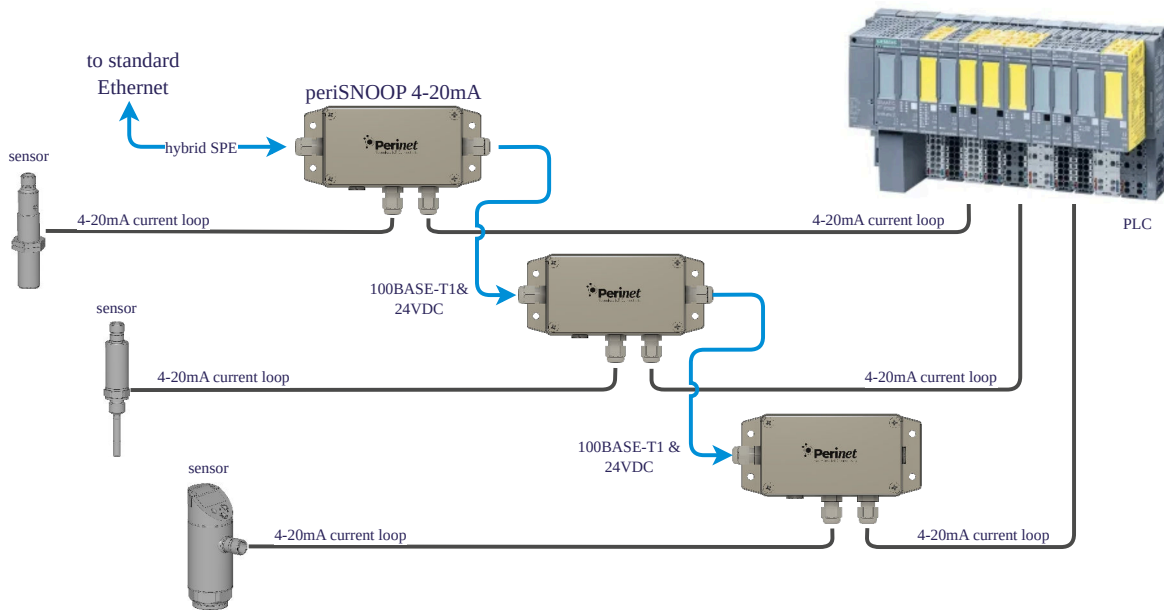
Security

- 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 Deliverables

- Integrated HTTP server with TLS
- Mutual TLS (mTLS) based Authentication
- Role Based Access Control (RBAC)
- Integrated MQTT-client, with mTLS
- Zero-configuration (mDNS and DNS-SD)
- Full TCP/IPv6 communication stack
- LifeCycle Management, remote firmware update
- Re-branding support
- No-Code Firmware, compatible with different sensors via configuration changes

Typical Application



Typical installation of the periSNOOP 4-20mA

Ordering Information

Ordering Code	Product Name	Description
PRN.000.069	periSNOOP 4-20mA	Single Pair Ethernet 4-20mA based sensor monitor

Ordering Code	Product Name	Description
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

