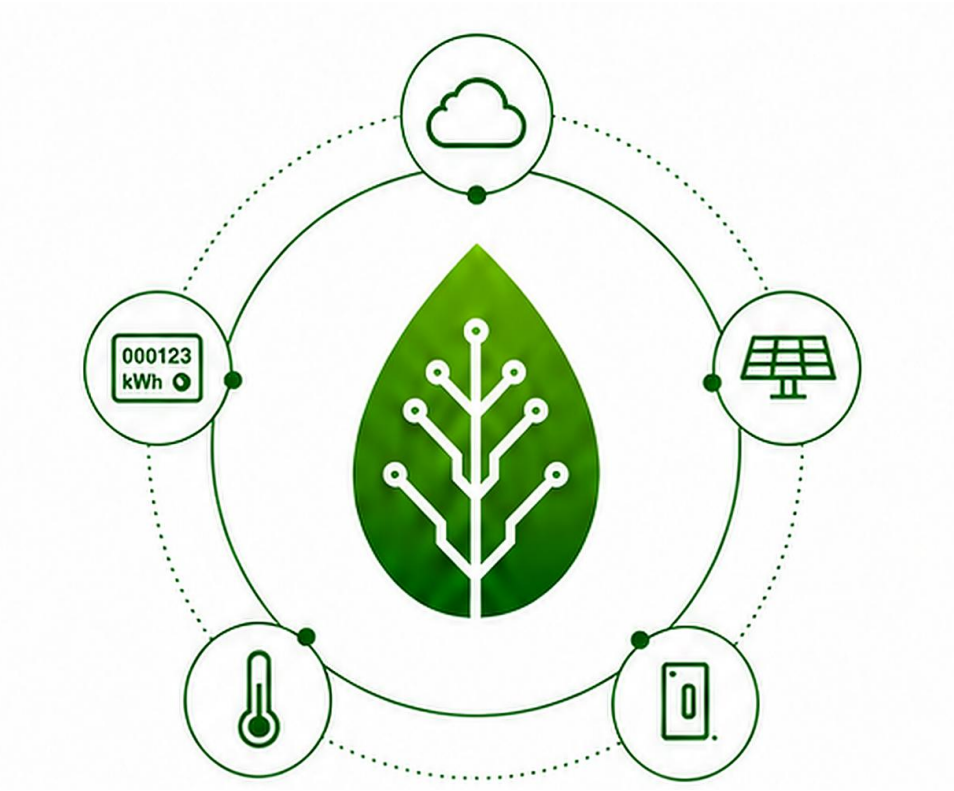
EcoPhi
EMPOWERING CLEAN TECHNOLOGIES

GATEWAY NANO

Compact Monitoring Gateway for PV Inverters, Energy Meters and Sensors



The Gateway Nano is a compact gateway for the online connection of single PV inverters, energy meters and sensors. It collects data mainly via Modbus RTU and transmits it via MQTT with TLS encryption to the EcoPhi Cloud.

Data transmission is available via 2.4 GHz WiFi or 4G LTE Cat 1 cellular.

In case of a network outage, up to 1000 data points can be stored locally and transmitted once the connection is restored.

KEY FEATURES

DEV — Monitoring of field devices
Connection of single PV inverters, energy meters and sensors

485 — Modbus RTU data acquisition
Reading data from up to 32 devices via one RS485 interface

I/O — Digital & analog input
Several different sensor applications

CLD — Cloud connection
Data transmission via MQTT with TLS encryption to the EcoPhi Cloud

RF — Wireless communication
Data transmission via 2.4 GHz WiFi or 4G LTE Cat 1 cellular

DB — Buffering during network outages
Storage of up to 1000 data points

OTA — OTA firmware updates
Firmware updates over-the-air

IDEAL FOR

- Single PV inverters
- Energy meters
- Reed contacts, e.g. on water meters or door sensors
- Simple sensor and measurement applications
- Small PV systems
- Retrofitting existing plants
- Applications without local control requirements

BENEFITS

Benefit	Description
Compact design	Device dimensions: 140 × 50 × 45 mm Weight: 0.12 kg
DIN-Rail mounting	Mounting on DIN rail possible
Flexible setup	Remote via EcoPhi platform
Wireless data transmission	Communication via WiFi or 4G LTE Cat 1
Secure transmission	MQTT communication with TLS encryption
Data buffering	Up to 1000 data points during network outages
Sensor integration	1× digital input + 1× analog input
Focus on monitoring	No control functions included

TECHNICAL SPECIFICATIONS

Interfaces	1× RS485 (up to 32 devices), 1× digital input (pulse counting), 1× analog input
Protocols	Modbus RTU, MQTT (TLS)
Connectivity	2.4 GHz WiFi or 4G LTE Cat 1 (SIM)
Data buffering	Up to 1000 data points
Setup	Remote via EcoPhi platform (local setup is not possible)
Updates	OTA firmware updates
Power supply	9–29 V DC (typ. 24 V DC)
Mounting	DIN-Rail / Hutschiene
Enclosure	3D-printed enclosure