

Nerve Kit

Helping you take the first steps
towards digitalization



- ✓ Ready-to-use edge computing kit
- ✓ Fully integrated in a robust, portable case suitable for lab use and demonstrations
- ✓ Start with default control applications, then develop and deploy your own
- ✓ Extend the kit's functionality by adding your own sensors and actuators

The Nerve Kit is a ready-to-use hardware and software package, designed to support your learning and training needs around digitalization. The kit provides everything needed to start collecting, storing and analyzing data, and can be extended with your own sensors and IOs e.g. IO Link Master. Nerve provides a virtualized software environment, enabling you to implement and remotely manage multiple containers or virtual machines for your specific use case. In addition, the kit can be used to connect to real-time data sources and update real-time control applications remotely via the management system.

Key Features

Plug and play

- Fully configured Data Services for ingesting PROFINET, MQTT and OPC UA data
- Two pre-installed CODESYS control applications for demo purposes
- Pre-configured Grafana dashboard for visualization of data (available locally and in the cloud)
- Workloads (Node-RED container / CODESYS programs) available for deployment from the management system to the Nerve Device

Extendable

- Extra digital I/Os available for adding your own sensors to extend functionality
- Data Services can be configured for new data streams including EtherCAT and Modbus TCP/IP
- Customizable Grafana dashboard for visualization of new sensor data
- Newly created workloads (virtual machines / Docker containers / CODESYS programs) can be deployed from the management system to the Nerve Device

Hardware Features

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Nerve Device	1 x MFN 100
CPU (MFN 100)	Intel E3940 4 cores, 4GB RAM
Storage (MFN 100)	64 GB SSD MLC
Interfaces (MFN 100)	1 x 1000 Mbit/s SFP 4 x 100/1000 Mbit/s RJ45 2 x USB 2.0 1 x Display Port
Interfaces (ET200 IO)	1 x SIMATIC ET 200SP 8x24V DC digital input 1 x SIMATIC ET 200SP 8x24V DC digital output
Mounting	DIN rail. Space for additional devices
Power	24V DC power supply
Dimensions	(H x W x D) 300 x 540 x 340 mm
Certification	CE mark

Software Features

Nerve	1x Nerve software license for MFN 100 Full feature set of Nerve Connects to Management System
Soft PLC	CODESYS 3.5 PROFINET Master / Slave EtherCAT Master and Modbus TCP/IP
Data Services protocol support	PROFINET, EtherCAT, Modbus TCP/IP, OPC UA, MQTT
Applications	Default CODESYS applications

Material name	Material number
Nerve Kit	13394