

# netANALYZER

Ethernet analysis made easy

- Comprehensive analysis of Real-Time Ethernet systems
- Passive, without impact on network or PLC
- Intuitive graphical display
- Station lists, alarms, process values, network load and jitter measurement
- Endless recording via customizable triggers



## Powerful analysis with simple operating concept

The netANALYZER is a tool for the simple analysis of Real-Time Ethernet networks. The scope of delivery includes a capture-hardware for recording the telegrams on the network as well as a graphical user software for Windows with extensive analysis functions. Of course, the netANALYZER hardware can also be used together with other analysis software such as Wireshark.

Using netANALYZER and the addon software netANALYZER Scope you always have your Ethernet network at your fingertips. Measure important key data such as station lists, alarms, process values, network load and telegram jitter without affecting the network or PLC.

To narrow down to sporadic errors netANALYZER box supports autonomous operation without PC. Thus, one can record telegram traffic quickly in the automation floor by a simple touch of a button. With the help of the powerful trigger function the netANALYZER can remain in a plant for a period of time, allowing facilitated troubleshooting.

On the occurrence of trigger events the netANALYZER automatically generates telegram snapshots that can be interpreted later using the netANALYZER Scope software.



→ QR Code Link: netANALYZER  
 Service-Hotline: +49 (0) 6190 9907-90  
[www.hilscher.com](http://www.hilscher.com)

# Ethernet analysis made easy – netANALYZER

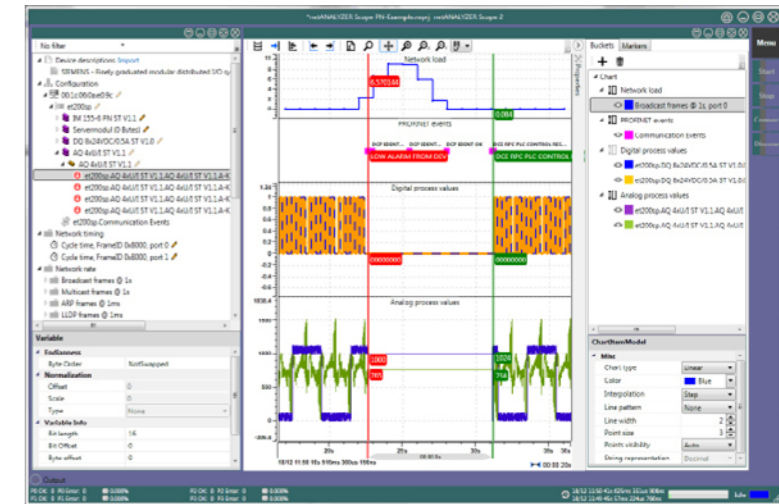


## netANALYZER Hardware

- Passive recording with zero-delay < 1 ns
- Capture up to 4 Ethernet ports and 4 digital switching events
- ± 5 ns measurement accuracy, 1 ns resolution
- Detailed error information for each telegram
- Rugged carrying case for field use

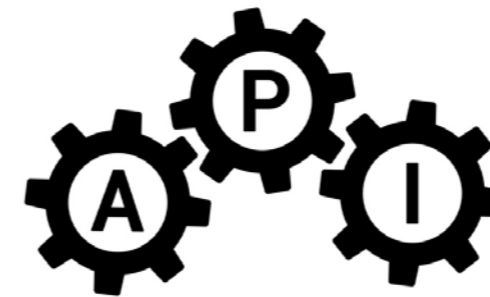
## netANALYZER Scope

- Intuitive graphical interface
- Eliminates manual analysis of endless telegram records
- Common display on a timeline of:
  - Process data
  - Network events
  - Network load
  - Frame jitter
  - Frame delay
- Quickest function for easy diagnosis of
  - Network stations
  - Cyclic and acyclic connections
  - Alarms and other important events
- Comprehensive trigger function
- Import of frame records for graphical analysis
- Save and load complete analysis projects



## Autonomous operation without PC

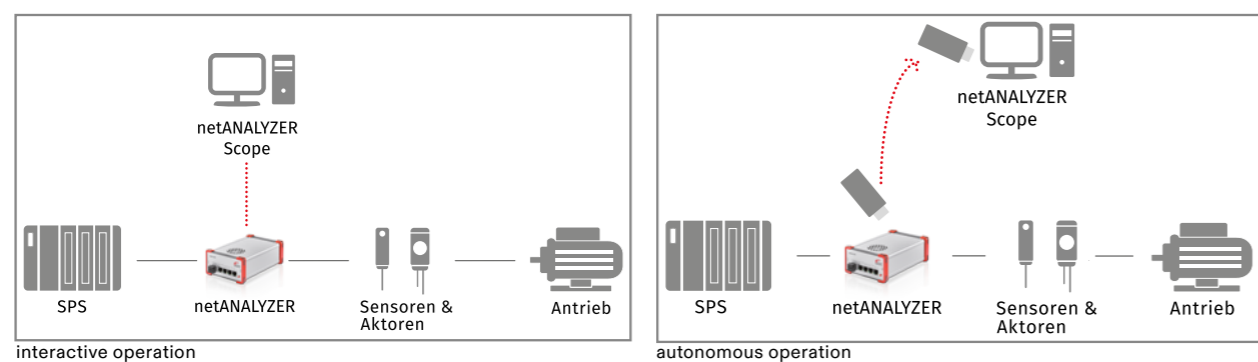
- Quick and easy recording „on site“ without connected PC
- Continuous operation with customizable triggers
- Creating telegram snapshots at triggering events



## Open to all applications

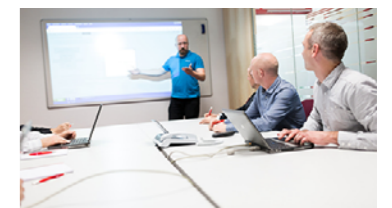
- Open driver API allows use of recording hardware in own measurement applications
- Out-of-the-box supported third-party software:
  - Wireshark
  - MECHATROLINK-III Analyzer
  - Sercos Monitor
  - TCN Ethernet StreamAnalyzer

## netANALYZER connection diagram



## Get to know the netANALYZER and netANALYZER Scope

- Online videos with many useful tips and tricks on YouTube
- Learn the handling of netANALYZER and netANALYZER Scope in our product trainings



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# Product information

## Technical Data

### Technical Data: NANL-B500G-RE

<b>Operating Temperature</b> ±0° C ... +55° C
<b>Supply Voltage</b> nominal 24 V DC / 700 mA / 16,8 W, range +18 V ... +30 V DC
<b>Dimensions (L x W x H)</b> 173 × 115 × 62 mm
<b>Form factor</b> Metal Box
<b>Ethernet Channels</b> 4x Ethernet 10/100BASE-TX RJ45, IEEE802.3 Ethernet II frame types
<b>Digital Channels</b> 4x digital IO 3.3 V / 24 V configurable
<b>TAPs</b> 2, integrated with zero-delay < 1 ns
<b>Time Stamp</b> ±5 ns measurement accuracy, 1 ns resolution
<b>PC Interface</b> Gigabit-Ethernet 1000BASE-T RJ45
<b>Recording interface for autonomous operation</b> USB 2.0 (hard disc or memory stick), max. 500 mA / external supply-data rate, approx. 50 % network load when recording on one TAP
<b>System Requirements - PC/notebook specifications:</b> Intel-compatible CPU, approx. 2 GHz or faster (depending on the data volume to be analyzed), DirectX 9 compatible graphics device, 20 MB available on the hard drive for the netANALYZER software, plus to be recorded data

### Technical Data: netANALYZER Scope

<b>Recording history and signal quantity</b> Unlimited, only limited by the PC's memory
<b>Signal type</b> Input & output process values, network load, frame jitters, custom telegram data, PROFINET events: alarms, cycle failures, device start up, station- and conversations-lists
<b>Prerequisite for live recording</b> NANL-B500G-RE
<b>Full version</b> Unlimited recording duration   Requires netANALYZER device with activated netANALYZER Scope license
<b>Free evaluation version</b> Limited recording duration without quicktest function, can run with netANALYZER device without netANALYZER Scope license
<b>Offline mode</b> Without netANALYZER device/netANALYZER Scope license, however stored recordings of any duration can be loaded
<b>Trigger</b> Freely configurable complex trigger conditions (comparisons, boolean operations, signal changes)
<b>Operating system</b> Windows 7, Windows 8, Windows 10
<b>Project import</b> - EtherCAT: ENI, PROFINET: GSDML, EtherNet/IP: STUDIO 5000 - L5X+EDS and/or manual signal configuration, PCAP files

*Note: All technical data may be changed without further notice.*

### Article Overview

Article Number	Description
NANL-B500G-RE	7313.100 netANALYZER Box Gigabit RTE
NANL-B500G-RE CASE	7313.102 Carrying case for netANALYZER Box
LIC/SCP/BS	8582.001 netANALYZER Scope base license, plus min. one add-on
LIC/SCP/PN	8582.030 netANALYZER Scope add-on license, PROFINET process data and events
LIC/SCP/QTPN	8582.031 netANALYZER Scope add-on license, PROFINET quicktester
LIC/SCP/ECAT	8582.040 netANALYZER Scope add-on license, EtherCAT process data
LIC/SCP/CVF	8582.050 netANALYZER Scope add-on license, Custom value filters
LIC/SCP/PCAP	8582.070 netANALYZER Scope add-on license, PCAP import
LIC/SCP/EIP	8582.080 netANALYZER Scope add-on license, EtherNet/IP process data
LIC/SCP/SA	8582.060 netANALYZER add-on license, Autonomous operation NANL-B500G without PC



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