



KUNBUS-TAP 2100

Network Monitor for Industrial Ethernet

KUNBUS-TAP 2100 – TEST ACCESS POINT

ANALYSIS TOOL FOR INDUSTRIAL ETHERNET NETWORKS

If errors arise in the data communication of a plant, the entire system reaches a faulty or even critical status. If this happens, it is important to detect the cause of error as quickly as possible. Is it a cable error, is a module affected or is it caused by faulty hardware/software? Does a communication interface produce incorrect data? The troubleshooting can take a long time and be very expensive, because unexpected plant shutdowns directly impact the company's turnover. In addition, subsequent errors could lead to further damages to technical equipment, machines or even injury to personnel.

The analysis tool KUNBUS-TAP 2100 is capable to detect these above-mentioned various kinds of errors. It makes no difference which Ethernet based protocol is used. The following common Industrial Ethernet networks can be analyzed: PROFINET, Ethernet/IP, POWERLINK, Modbus TCP, EtherCAT, SERCOS III and SafetyNET p.

The Data Sniffer can not only be used for any troubleshooting tasks but also for setting into operation of entire automation systems as well as permanent monitoring of all relevant processes. The Tap-2100 is connected to the PC via a standard gigabit Ethernet interface. Reading and evaluation of the tapped packet data is done with freely available network monitors, such as

„Wireshark“. Detailed test records can be generated without any effort.

As a result of their compact and durable plastic housing, the device is not only suitable for work in laboratories but also for daily use in the field.

With four sample ports, this device enables monitoring of up to two independent real-time Ethernet connections. In addition to the recording of faulty telegrams in the network by which the TAP is installed between two devices, the TAP can also be used to specifically analyse data streams of a device to be found in the network. In doing so, the TAP records the frames directly before and directly after the device to be analysed. This enables the measurement of,

amongst other things, the delay and jitter of the device and whether, for example, the device swallows or falsifies respectively telegrams. Furthermore, CRC errors are not rejected, but also transmit to the network analysis software.

An internal throughput delay of 0 μ s (zero delay) makes the KUNBUS-TAP Data Sniffer almost transparent for the data channels to be tested. The device operates in a completely passive monitoring mode and therefore does not influence the data communication of the network. The TAP operates in full duplex mode. That means that both input and output side can be monitored in parallel in both directions.

TECHNICAL DATA

Number of ports/channels	4/2	Size (W x H x D)	ca. 100 x 150 x 40 mm
Transmission rate sample ports	100 / 10 MBit/s	Weight	ca. 150 g
Transmission rate uplink port	1 GBit/s	Protection class	IP20
Delay	0 μ s (zero delay)	CE certified	yes
Resolution timestamp	1 ns	EMV compatible	yes
Power supply	24 VDC / 230 VAC		

Manufacturer:

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