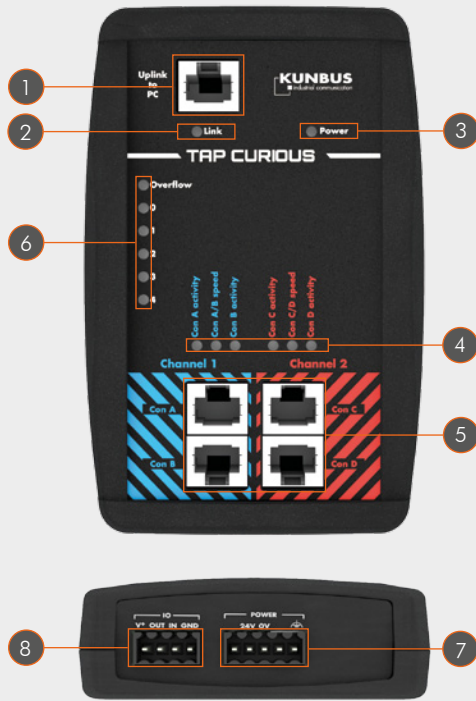
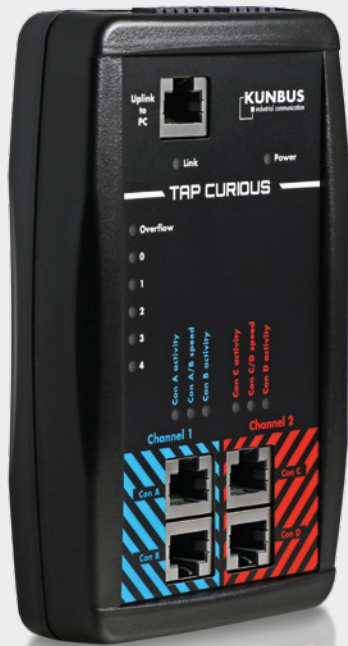


Overview



1	Uplink port
2	Uplink LED
3	Power LED
4	Status LEDs for 2 communication channels (5)

5	Probe ports (2 communication channels)
6	LEDs for filter and overflow
7	Plug for power supply
8	External input and output interface

Technical Data

Size/weight	
Width	91.4 mm
Height	139.7 mm
Depth	27.9 mm
Weight	approx. 150 g

Environmental conditions	
Operating temperature	0°C...+55°C
Storage temperature	-25°C...+85°C
Humidity	95%, non-condensing
Protection class	IP20

Output	
Power supply	24 V DC ±20% or 230 V AC with mains connector
Digital input/output	External power supply 24V DC ±20%; Maximum output current of 50 mA; Pulse length of 1 ms; Electrically isolated
Number of Ethernet ports	4 for recording 2 lines
Uplink port	up to 1 Gbit/s (1000BASE-T-Ethernet, RJ45 port)
Probe ports	up to 100 Mbit/s (100BASE-TX-Ethernet, RJ45 port, full and half duplex)
Throughput delay	~ 0 μs (zero delay)
Time stamp resolution	1 ns
Diagnosis	3 LEDs per channel 6 LEDs for filter and overflow

Tests/certificates	
CE	

Quick Start Guide

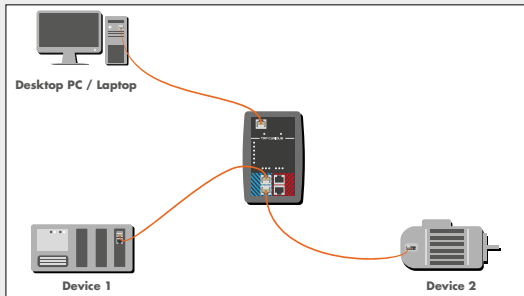
TAP CURIOUS

Application examples

TAP CURIOUS is able to monitor devices in various ways.

Example 1

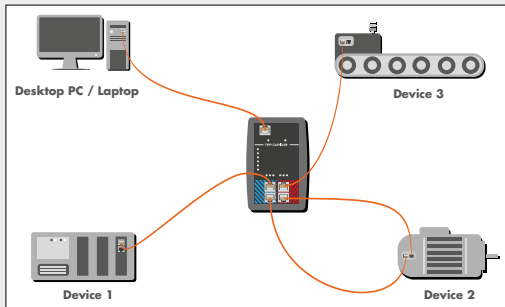
Connect your devices as shown to capture the communication between two devices. This allows you to find faulty frames on the network.



Application example 1

Example 2

Connect your devices as shown to monitor the frames before and after a device throughput. In this example, device 2 is monitored. Here, you could analyze the following: measure the device throughput time, check whether frames have been distorted or truncated, measure jitter on cyclical frames.



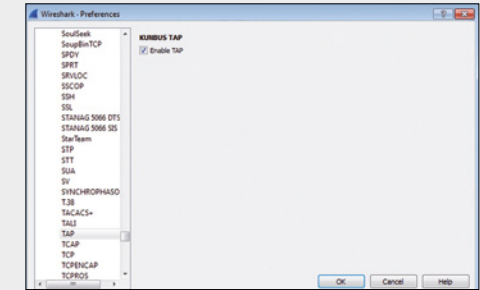
Application example 2

Starting the device for the first time

- Unpack the device.
- Connect the device to the mains cable supplied.
 - ▶▶▶ Power LED lights up.
- Load „Wireshark“ network analysis software onto the PC and install it. You can download Wireshark from www.wireshark.org.
- Download Wireshark plugin.DLL from KUNBUS website and copy the file into the Wireshark plugin folder (e.g.: C:\Programs\Wireshark\plugins\1.10.2). Download the correct DLL file for either the 32 or the 64-bit Wireshark version, depending on which one you use:
 - 32-bit version: tap32_1xxx.dll (Wireshark-Plugin WIN32) *
 - 32-bit version: tap32_2xxx.dll (Wireshark-Plugin WIN32) *
 - 64-bit version: tap64_1xxx.dll (Wireshark-Plugin WIN64) *
 - 64-bit version: tap64_2xxx.dll (Wireshark-Plugin WIN64) *

* xxx denotes the version used (e.g. 1.10.2)
- Connect TAP CURIOUS to an Ethernet interface on the PC using a RJ45 cable. „Link“ LED lights up as soon as the PC and TAP CURIOUS are connected.
- Connect the line to be tested to one of the probe ports. Each of the ports „Con A“ and „Con B“ and ports „Con C“ and „Con D“ are connected directly. So communication is possible even when TAP CURIOUS is powered off. The speed LEDs show the connection speed set for the probe ports. When frames are being transmitted on the line, the „Activity“ LED flashes green.

- Start Wireshark on the PC and activate the „TAP“ plugin in the menu at „Edit > Preferences > Protocols > TAP“.



Wireshark plugin

- All available Ethernet interfaces are listed in the main window. Click on the Ethernet interface you require to select it.
- Set any filters you want via the web server. This allows you to search for specific frames and prevents your PC's main memory from becoming overloaded.
 - ▶▶▶ You can now use Wireshark to analyze the data.

TAP CURIOUS expands the Ethernet packages by 20 bytes of additional information. You can use TAP CURIOUS without the plugin or with a different Ethernet analysis program. But you will not be able to analyze this additional information. You might also find that the analysis program reports a data package as faulty due to this additional information.