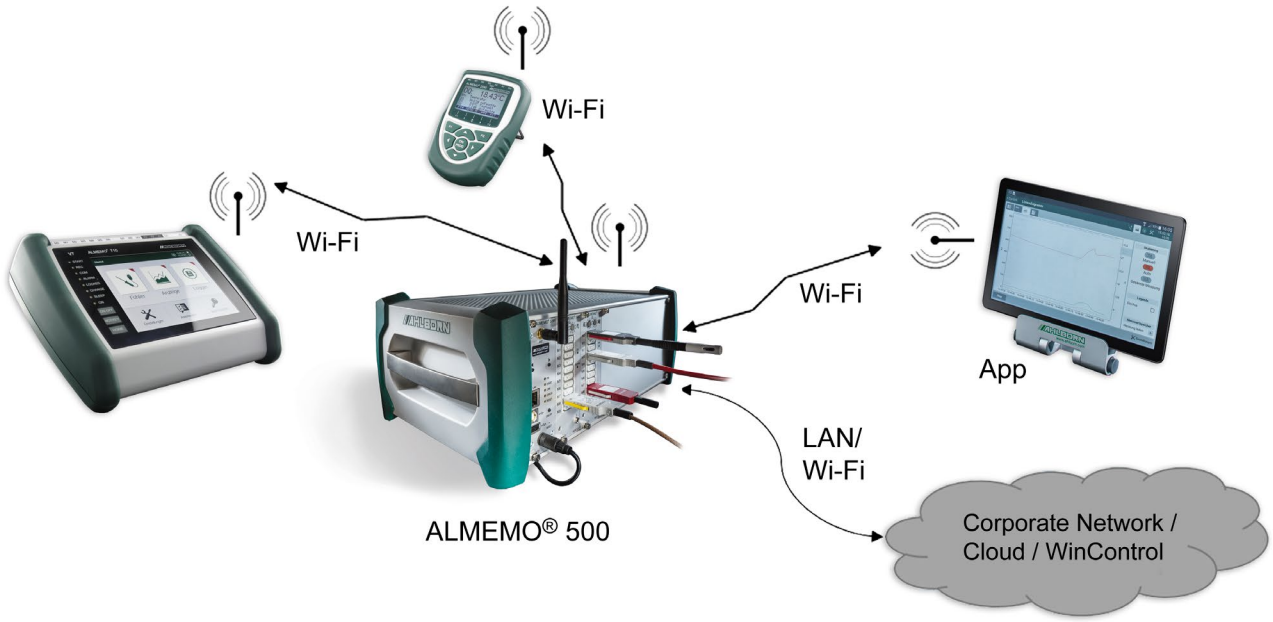
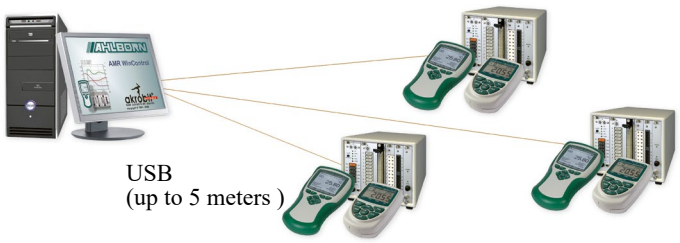
ALMEMO® Network technology



ALMEMO® networking technology

The ALMEMO® system provides optimal support for networked, decentralized measured data acquisition. Measured data can be acquired locally on site using short sensor signal lines and small modular measuring instruments and can then be evaluated all together on a central computer. This not only minimizes wiring requirements but also goes a long way to solving EMC problems (especially if optic fiber cables are used).
Via the cascadable interface provided by ALMEMO® devices it is possible, thanks to our ALMEMO® networking technology, to manage up to 100 ALMEMO® measuring instruments from just one computer. User-friendly software packages (see Chapter 05) are available for automatically scanning measuring points within the network, for evaluating the measured values, and for graphically representing results in line chart or bar chart form. This permits measuring setups in which devices can be used with such high operational reliability and with such great flexibility that even the most demanding measuring tasks can be solved.
For example:

- Data connection from the PC to ALMEMO® devices via USB, Ethernet, WLAN, RS232, Bluetooth, mobile communications, modem.
- Can be combined in a wide variety of ways via the output sockets A1 and A2 on the ALMEMO® measuring instrument
- Various networking arrangements can be implemented.
- Measuring instruments can be installed in separate rooms; considerable distances can be bridged.
- ALMEMO® devices / networks can be connected to the PC via an existing Ethernet / WLAN network.
- *New* Wireless connection between the wireless ALMEMO® sensor respectively wireless ALMEMO® interface for ALMEMO® D7 sensor and the wireless ALMEMO® data logger 470-1, see chapter ALMEMO® Measuring Instruments.
- PC and devices can be connected over a wireless link using Bluetooth modules.
- Measured data can be acquired and also read out from the measured value memory on an ALMEMO® data logger - all online - using the WinControl software package



PC connection via USB

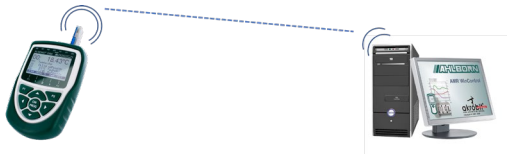
Inexpensive for relatively short distances (up to 5 m) several connections in parallel (star-configured network) for mobile use, e.g. notebook

Necessary component
ZA 1919 DKU
see page 04.05

PC connection via Ethernet (LAN)

Measured data acquisition, on a decentralized basis, using existing LAN cabling, relatively long distances, via Internet worldwide.

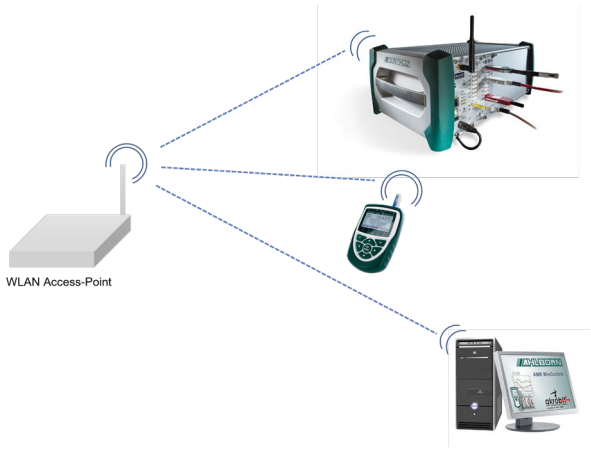
Necessary component(s)
ZA 1945 DK see page 04.05



PC connection directly via WLAN

Direct connection from a PC (client) to an ALMEMO® measuring device with ALMEMO® WLAN module (access point)

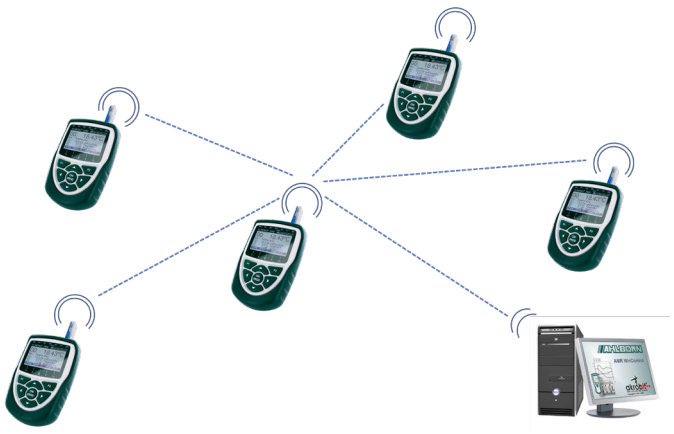
Necessary component ZA 1739-WL
see page 04.14



PC connection via a WLAN company network

Connection of an ALMEMO® measuring device with an ALMEMO® WLAN module (client) to a WLAN network (access point in the company network)

Necessary component ZA 1739-WL
see page 04.14

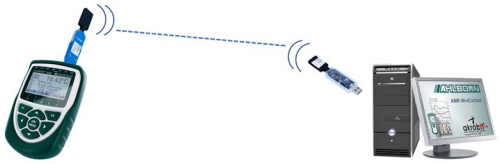


PC connection via a local ALMEMO® WLAN network

Connection of one ALMEMO® measuring device (access point) with up to 4 ALMEMO® measuring devices (clients) and direct connection to a PC (client).
For this, each connected ALMEMO® measuring device requires an ALMEMO® WLAN module.

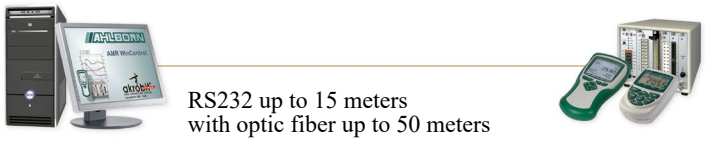
Necessary component ZA 1739-WL
see page 04.14

ALMEMO® Network technology



new: **Wireless PC connection via Bluetooth**
Direct connection between ALMEMO® measuring instrument and PC

Necessary component ZA1739BPVU
see page 04.08

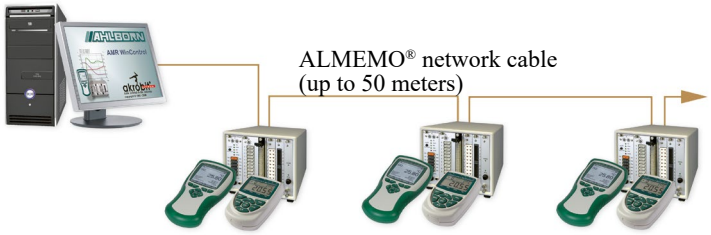


PC connection via RS232
Single connection
via COM interface

Necessary component
ZA 1909 DK5 see page 04.05

PC connection via mobile modem :
Online or Cloud
Mobile operation over any distance.

Necessary components: ZA 1709 GPRS
see page 04.11



Connection between ALMEMO® measuring instruments over ALMEMO® network cable
Inexpensive linear network solution, flexible, plug-and-play, easy to expand.

Necessary component ZA 1999 NK5
see page 04.07

new: **Wireless connection between ALMEMO® measuring instrument via Bluetooth**
Connection of several ALMEMO® measuring devices among each other and wired connection (USB, Ethernet) or wireless (Bluetooth, WLAN) to a PC.

Necessary component ZA1739BNV
see page 04.08

Wireless sensor connection via Bluetooth (ALMEMO® wireless sensor)
Single connection from a measuring Bluetooth device (wireless sensor) to a receiving ALMEMO® device with display and saving of measured values (also without PC). Any number of sensor connections in parallel.

Necessary components MA2790BTFV
(with Bluetooth measuring instrument)
see page 04.10

new: Wireless connection of wireless ALMEMO® sensor and wireless ALMEMO® interface for ALMEMO® D6 and D7 sensor to wireless data logger ALMEMO® 470-1,

See chapter ALMEMO® Measuring Instruments.