

HUMIDITY

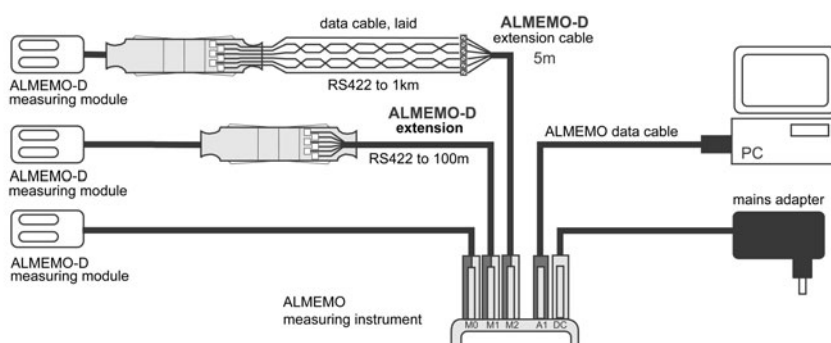
new!

Digital sensors

- ▶ Digital sensor element. All key sensor characteristics and settings data is stored in the sensor element itself.
- ▶ Digital transfer of measured values from the sensor element to the ALMEMO® measuring instrument. All risk of error involved in digital-to-analog conversion in the sensor and analog-to-digital conversion in the measuring instrument (as is the case with analog output signals) is excluded.
- ▶ A wide variety of connection options

ALMEMO®-D measuring module connected to an ALMEMO® measuring instrument

The ALMEMO® D measuring module can - just like any other ALMEMO® sensor - be connected to the input of an ALMEMO® measuring instrument - either directly or via an ALMEMO® D extension cable (RS422, up to 100 meters using our standard cables or over 100 meters using the customer's own cables); the sensor's power supply is provided via the ALMEMO® measuring instrument.

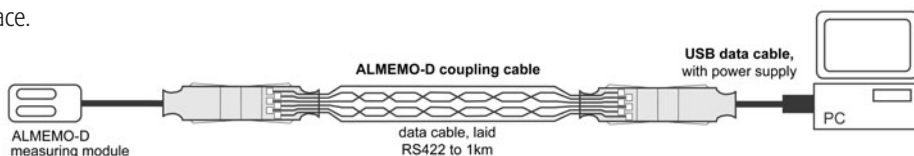


- Accessories**
- ALMEMO®-D extension cable, 5 meters
 - ALMEMO®-D extension cable, 10 meters
 - ALMEMO®-D extension cable, 20 meters
 - ALMEMO®-D extension cable, 40 meters
 - ALMEMO®-D extension cable, 100 meters

- Order no. ZAD999VK05
- Order no. ZAD999VK10
- Order no. ZAD999VK20
- Order no. ZAD999VK40
- Order no. ZAD999VK100

new: ALMEMO®-D measuring module connected directly to a PC

In this arrangement the ALMEMO® D measuring module operates like an ALMEMO® measuring instrument and can be connected directly to a PC via a USB cable with power supply; the sensor's power supply is provided via the PC's USB interface. The device parameters (e.g. device address, baud rate) and sensor parameters (e.g. correction values) are programmed in the usual way via the interface.

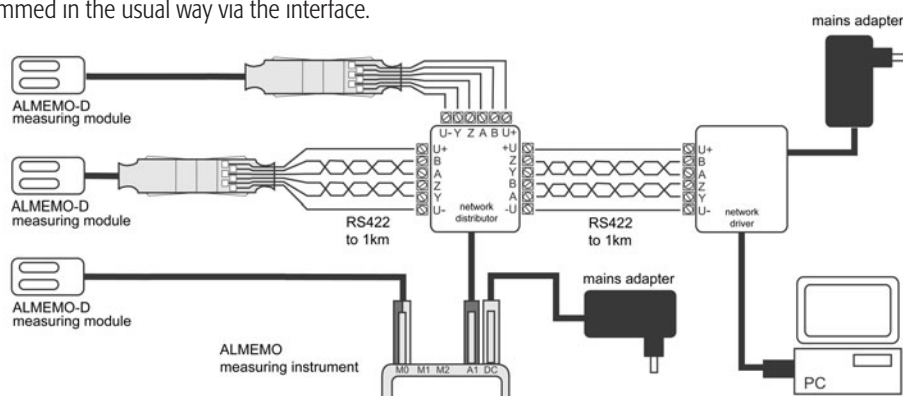


- Accessories**
- ALMEMO® socket-to-socket coupling cable, 1 meter
 - ALMEMO® USB data cable, with power supply, 1,5 meters

- Order no. ZA5099KK
- Order no. ZA1919DKUV

new: ALMEMO®-D measuring modul connected directly in an RS422 ALMEMO® network

In this arrangement the ALMEMO® D measuring module operates like an ALMEMO® measuring instrument and can be connected directly to the RS422 output of a network distributor; the sensor's power supply is provided via the central supply of the RS422 network distributor). The device parameters (e.g. device address, baud rate) and sensor parameters (e.g. correction values) are programmed in the usual way via the interface.

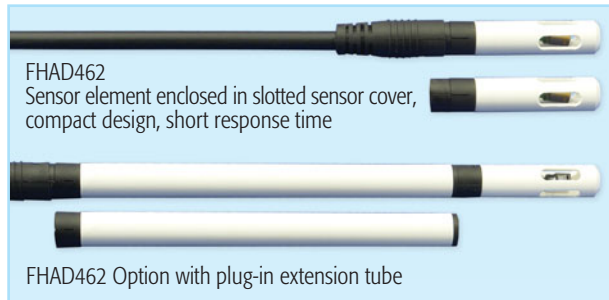


- Accessories**
- ALMEMO® coupling with RS422 driver

- Order no. ZA5099FBV

Capacitive ALMEMO® D humidity sensor, type FHAD46

new!



- ▶ Digital sensor element. All key sensor characteristics and settings data is stored in the sensor element itself.
- ▶ Plug-in sensor element. Spare elements are inexpensive; a replacement can be inserted quickly and easily on site by virtually anyone; it will be fully accurate and need no prior adjustment.
- ▶ Digital transfer of measured values from the sensor element to the ALMEMO® measuring instrument: All risk of error involved in digital-to-analog conversion in the sensor and analog-to-digital conversion in the measuring instrument (as is the case with analog output signals) is excluded.
- ▶ Connecting cable, fitted with ALMEMO® D connector, in 3 different lengths up to 10 meters
- ▶ Various connection options (see page 09.06)
 1. Direct connection to the input of an ALMEMO® measuring instrument, optional ALMEMO® D extension cable, RS422, up to 100 meters - or over 100 meters using the customer's own cables
 2. For connection to a PC ALMEMO® USB data cable, with power supply
 3. For connection to an RS422 network ALMEMO® coupling with RS422 driver
- ▶ Four climate variables can be displayed, temperature, relative humidity, dew point, and mixture ratio.
- ▶ Factory or DKD calibration is performed on the sensor element alone. Fully accurate - irrespective of connecting cable and ALMEMO® measuring instrument

Versions including manufacturer's test certificate

ALMEMO® D humidity sensor with plug-in, digital sensor element, without protective cover, including ALMEMO® D connecting cable, length = 2 meters

Same, with ALMEMO® D connecting cable, length = 5 meters

Same, with ALMEMO® D connecting cable, length = 10 meters

Spare sensor element for FHAD460, digital, adjusted

Spare ALMEMO® D connecting cable for FHAD460, length = 2 meters

Same, with length = 5 meters

Same, with length = 10 meters

ALMEMO® D humidity sensor with plug-in, digital sensor element, enclosed in slotted sensor cover, including ALMEMO® D connecting cable, length = 2 meters

Same, with ALMEMO® D connecting cable, length = 5 meters

Same, with ALMEMO® D connecting cable, length = 10 meters

Extension tube, Ø 8 mm, length 97 mm, plug-in, for FHAD462

Spare sensor element for FHAD462, digital, enclosed in slotted sensor cover, adjusted

Spare ALMEMO® D connecting cable for FHAD462, length = 2 meters

Same, with length = 5 meters

Same, with length = 10 meters

Technical data

Field of application

FHAD460:	-20 to +80 °C; 5 to 98 % RH
FHAD462:	-20 to +60 °C; 5 to 98 % RH

Humidity measuring circuit

Measuring range	0 to 100 % RH
Sensor	CMOSens® technology
Measuring duration / output period	approx. 3 seconds
Accuracy	±1.8% RH in range 20 to 80% RH at nominal temperature
Hysteresis	±1 % RH
Nominal temperature	25 °C ±2 K
Sensor operating press.	Atmospheric pressure
Response time T63	Typical 10 seconds at 25 °C, 1 m/s

Temperature measuring circuit

Sensor	CMOSens® technology
Measuring duration / output period	approx. 3 seconds
Accuracy	±0.3 K at 25 °C, ±1 K (±1.2 K) in range -20 to +60 (or +80) °C
Reproducibility	±0.1 K
Response time T63	Typical 10 seconds

Mechanical design

Dimensions	
FHAD460:	
Sensor chip (dimensions over all)	approx. 6 x 14 x 3 mm
Connection width	approx. 7 mm
FHAD462:	
Sensor cover Ø	8 mm, length 36 mm
Plug connection Ø	approx. 9 mm
Extension tube Ø	8 mm, length 97 mm
Cable	PVC, with ALMEMO D connector (for various lengths, see version data)

Accessories

Standard-ALMEMO® extension cable, 2 meters	Order no. ZA9060VK2
Standard-ALMEMO® extension cable, 4 meters	Order no. ZA9060VK4
ALMEMO®-D extension cable, USB data cable, RS422 coupling, see page 09.22	

Order no. FHAD460

Order no. FHAD460L05

Order no. FHAD460L10

Order no. FH0D46

Order no. ZAD9460AK

Order no. ZAD9460AKL05

Order no. ZAD9460AKL10

Order no. FHAD462

Order no. FHAD462L05

Order no. FHAD462L10

Order no. ZB0D462VR

Order no. FH0D462

Order no. ZAD9462AK

Order no. ZAD9462AKL05

Order no. ZAD9462AKL10

10/2008 We reserve the right to make technical changes.

ALHORN

www.alhorn.com

supplylab