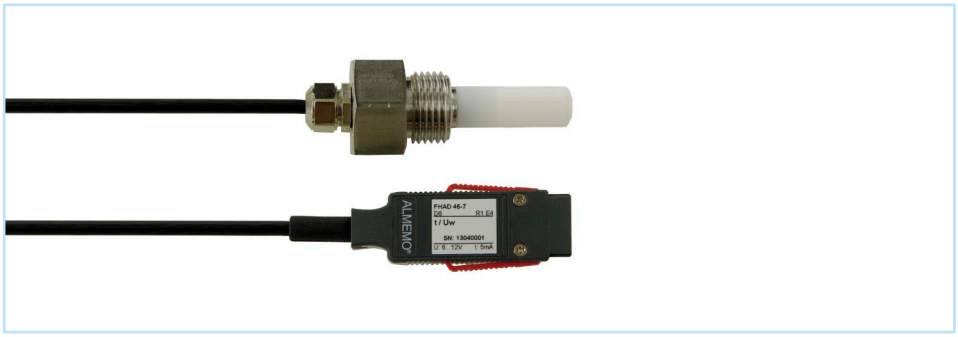
10/2013 • We reserve the right to make technical changes.

Digital sensor for measuring temperature and humidity FHAD 46-7,



Pressure-sealed variant up to 16 bar, with ALMEMO® D6 plug

- Compact sensor made from stainless steel
- Screw thread, for pressure pipes
- Option - adapter for compressed air pipes
- Digital capacitive humidity sensor with integrated signal processor
- All sensor characteristics and adjustment data are saved in the humidity sensor element itself. Humidity sensor element, plug-in
- Spare elements are inexpensive; a replacement can be fitted on site quickly and easily by virtually anyone; it will be fully accurate straight away needing no special adjustment.
- The humidity variables are calculated from the two primary measuring channels (real measurable variables): temperature, relative humidity
- Three measuring channels are programmed:
  temperature (°C, T, t), relative humidity (%H, RH, Uw), dewpoint (°C, DT, td)
  One further humidity variable can also be selected:
  mixture (g/kg, MH, r), absolute humidity (g/m³, AH, dv), vapor pressure (mbar, VP, e), enthalpy (kJ/kg, En, h)
  The system pressure needed for automatic pressure compensation of pressure-dependent humidity variables and the channel configuration are entered directly on the PC using USB adapter cable ZA1919AKUV. (see page 04.05).

Technical data

Operative range	-20 to +80 °C, 5 to 98 % RH
Digital temperature / humidity sensor (including A/D converter)	
Humidity	
Measuring range	0 to 100 % RH
Sensor	CMOSens® technology
Accuracy	±1.8 % RH in range 10 to 90 % RH at nominal temperature
Hysteresis	typical ±1 % RH
Nominal temperature	+25 °C
Sensor operating pressure	up to 16 bar
Temperature	
Sensor	CMOSens® technology
Accuracy	±0.3 K at +25 °C ±0.4 K at +10 to +40 °C ±1.3 K at -20 to +80 °C
Reproducibility	typical ±0.1 K

ALMEMO® connecting cable	
PVC Length (see variants) with ALMEMO® D6 plug	
ALMEMO® D6 plug	
Refresh time	2 seconds for all four channels
Supply voltage	6 to 13 VDC
Current consumption	12 mA
Mechanical design	
Sensor	Stainless steel, diameter 12 mm Overall length approx. 77 mm
Filter cap	PTFE sinter filter SK6
Process connection	Male thread G 1/2-inch Fitted length 48 mm, Width across flats 27
Screw-fit cable gland	Splash-protected



Adapter for compressed air pipes

Accessories

	Order no.
Adapter for compressed air pipes	ZB96467AP
PTFE sinter filter (spare) (see page 08.08)	ZB9600SK6
Stainless-steel sinter filter (see page 08.08)	ZB9600SK8

Variants

	Order no.
Digitaler sensor for temperature and humidity, filter cap PTFE, pressure-sealed variant, with fitted cable and ALMEMO® D6 plug, manufacturer's test certificate	
Connecting cable, length 2 meters	**FHAD467**
Connecting cable, length 5 meters	**FHAD467L05**
Connecting cable, length 10 meters	**FHAD467L10**
Replacement sensor element, digital, adjusted, plug-in	**FH0D46**

DAkkS / DKD or factory calibration KH9xxx, temperature, humidity, for digital sensor (see chapter „Calibration certificates“)