

# HUMIDITY

**new!**

## High-precision humidity sensor FHAD 36 Rx Wide range of temperatures ALMEMO® D measuring module for humidity and temperature



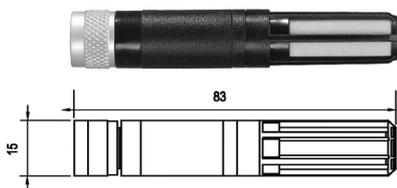
ALMEMO® connecting cable with Sensor (example)

- ▶ Capacitive humidity sensor with integrated signal processor, for humidity measurement at the highest accuracy level
- ▶ Unique correction and adjustment process
- ▶ Digital output, i.e. all correction and sensor data saved in the sensor itself
- ▶ ALMEMO® connecting cable with digital ALMEMO® D measuring module. Cable extensions up to 100 meters and various connection methods see page 09.08
- ▶ Four climate variables displayed Temperature, relative humidity, dew point, and function channels for mixture ratio, enthalpy
- ▶ Factory or DKD calibration is performed on the sensor alone. Fully accurate - irrespective of connecting cable and ALMEMO® measuring instrument.
- ▶ Operation in sleep mode only possible with devices with sleep delay function (ALMEMO 2590-2/3S/4S, 2690-8, 2890-9, 5690, 8590-9, 8690-9A, with Update)

### Common technical data

Operative range	(depending on sensor type)
<b>Humidity measurement</b>	
Sensor	capacitive
Measuring range	0 to 100 % RH
Adjusted	at 23 °C and 10%, 35%, 80% RH
Accuracy at 23 °C	±1.3% RH
Reproducibility	0.5% RH
Long-term stability	<1% RH per year
<b>Temperature measurement</b>	
Sensor	Pt100, 1/3 class B
Measuring range	-100 to +200 °C
Accuracy at 23 °C	±0.2 K
Reproducibility	0,05 °C
Long-term stability	<0,1 °C per year
<b>Operative range of the electronics</b> in the sensor connector -40 to +100 °C in the grip (of hand-held sensors) -40 to +85 °C	
<b>Sensor power supply</b> via the ALMEMO® device, appr. 12 mA	
<b>Sensor connection</b> on the sensor / sensor cable Plug connection (Materials: Anticorodal aluminum, anodized) IP65	
<b>ALMEMO® cable</b>	Sensor coupling (100mm) with cable, Length 2 or 5 meters Materials TPU, -40 to +90 °C fitted with ALMEMO® D plug
<b>New Option OAD936RAP</b>	Atmospheric pressure sensor integrated in ALMEMO® connector
Measuring range	700 to 1100 mbar
Technical data as for FDAD12SA see page 11.12	

## Standard temperature / humidity sensor Type FHAD36RS



### Technical data

Operative range	-50 to +100 °C
Sensor materials	Polycarbonate
Filter	Polyethylene
Response time	<15 s at typical 1 m/s

### Accessories

Brackets for wall mounting (see page 09.05) Order no. ZB9600W

### Variants including factory test certificate

Standard temperature / humidity sensor with plug connection including connecting cable with ALMEMO D connector  
Connecting cable, length = 2 meters  
same Connecting cable, length = 5 meters

**Order no. FHAD36RS**  
**Order no. FHAD36RSL05**

### Filter



### Variants

Filter cartridge = polycarbonate, filter = polyethylene,  
For standard applications, good response time, good protection against fine dust particles

**Order no. ZB9636PE**

Filter cartridge = polycarbonate, Filter = stainless-steel wire fabric, Quickest response time, Not suitable for environments that are bioactive or contaminated with fine dust particles (risk of congestion)

**Order no. ZB9636WM**

Filter cartridge = polycarbonate, filter = Teflon, Good protection against fine dust particles and salt (maritime environment), Slower response time

**Order no. ZB9636TF**

### Other variants are available on request

Miniature cable humidity sensor  
Diameter: 4 mm, -40 to +85 °C



Humidity sensor with round penetrating tip  
Diameter 5 / 10 mm For taking measurements in loose bulk materials -40 to +85 °C



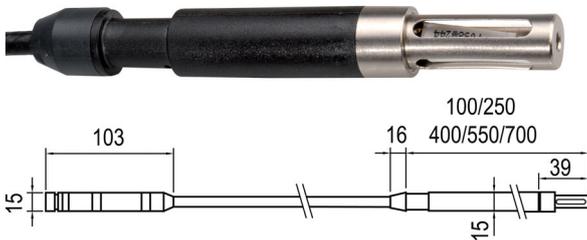
Sensor with flat penetrating blade, 22 x 4 mm  
For taking measurements in paper or textile stacks -40 to +85 °C



# HUMIDITY

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## Industrial humidity sensors FHAD 36 RIC for temperatures up to +200 °C



### Technical data

Operative range	-100 to +200 °C
Sensor length	100 mm (Other lengths 250/400/550/700 mm are available on request.)
Sensor materials	PPS (polyphenylene sulfide)
Filter cartridge	Brass, nickel-plated
Filter	Stainless-steel wire fabric filter
Response time T <sub>63</sub>	<10 s at typical 1 m/s, without filter

### Accessories

Assembly screw fittings for 15 mm sensor  
 Brass, nickel-plated Thread M20x1.5  
 Viton® seal, up to 200 °C  
 Order no. ZB9636KV



Mounting flange:  
 steel, nickel-plated, diameter 80 mm  
 Order no. ZB9636F



**Variants** including factory test certificate and stainless-steel wire fabric filter

Industrial humidity sensor with high-temperature sensor cable and plug connection including connecting cable with ALMEMO D connector  
 Sensor cable, length = 2 meters Connecting cable, length = 2 meters same  
 Sensor cable, length = 5 meters Connecting cable, length = 2 meters same  
 Sensor cable, length = 2 meters Connecting cable, length = 5 meters same  
 Sensor cable, length = 5 meters Connecting cable, length = 5 meters same

**Order no. FHAD36RIC102**  
**Order no. FHAD36RIC105**  
**Order no. FHAD36RIC102L05**  
**Order no. FHAD36RIC105L05**

### Other variants are available on request

Industrial humidity sensor, stainless steel, diameter 15 mm -100 to +200 °C

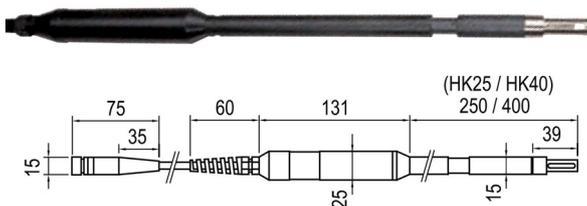


Screw-type humidity sensor, up to 400 bar, stainless steel Thread G1/2 inch -100 to +200 °C



## Hand-held high-temperature sensor FHAD 36 RHK for temperatures up to 200 °C

For mobile test measurements, not for stationary installation



### Technical data

Operative range	-100 to +150/200 °C see variants
Operative range of the electronics in the grip:	-40 to +85 °C
Sensor materials	Shaft PPS (polyphenylene sulfide), grip POM (polyoxymethylene)
Filter cartridge	Brass, nickel-plated
Filter	Stainless-steel wire fabric filter
Response time T <sub>63</sub>	<10 s at typical 1 m/s, without filter

**Variants** including factory test certificate and stainless-steel wire fabric filter

Hand-held high-temperature sensor with sensor cable (2 meters) and connecting cable with ALMEMO® D connector  
 Connecting cable, length = 0.3 meters, Operative range up to +150 °C, Sensor length = 250 mm up to +200 °C, Sensor length = 400 mm

**Order no. FHAD36RHK25**  
**Order no. FHAD36RHK40**

**Filter** For sensors with filter cartridge  
 For type FHAD36RIC and type FHAD36RHK



**Variants** (up to +200 °C)

Filter = stainless-steel wire fabric, Quickest response time, Not suitable for environments that are bioactive or contaminated with fine dust particles (risk of congestion)  
 Stainless-steel sinter filter Best protection in environments heavily contaminated with dust particles  
 Good response time for low humidities (not to be used for high humidities)  
 Filter = Teflon, Good protection against fine dust particles and salt (maritime environment)  
 Slower response time

**Order no. ZB9636M15**  
**Order no. ZB9636S15**  
**Order no. ZB9636T15**

01/2011 We reserve the right to make technical changes.