11/2025 • We reserve the right to make technical changes.

Capacitive humidity sensor FHA 646 R, miniature sensor



- Compact sensor, extremely small dimensions
- Wide operating temperature range
- Particularly suitable for measuring operations between PCBs, inside cases, in walls, ceilings, and insulation layers used in the construction industry, and for the protection of listed historic monuments

Technical data

Operative range	-30 to +100 °C, 5 to 98 % RH
Humidity measuring circuit	
Measuring range	0 to 100 % RH
Sensor	capacitive
Accuracy	±2 % RH in the range <90 % RH at nominal temperature
Reproducibility	<1 % RH at nominal temperature
Nominal temperature	+25 ±3 °C
Response time T63	approx. 10 seconds at 1 m/s

Temperature measuring circuit	
Sensor	NTC type N
Accuracy	-20 to 0 ±0.4 K, 0 to +70 ±0.2 K +70 to +100 ±0.6 K
Reproducibility	0.1 K
Mechanical design	
Sensor tube	nickel-plated, 50 mm long, 5 mm Ø
Protective cap	None
Cable	High-temperature cable (up to +100 °C), 2 meters long, with ALMEMO® plug (no other lengths available)

! The sensor can only be operated by plugging DIRECTLY onto an ALMEMO® device.
(NOT with extension cables ZA9060VKx or ZA9090VKCx).
Or alternatively, the following sensor types can be used. FHAD36RAS up to +100 °C
FHAD46-C2 or FHAD46-C0 Compact design

Accessories

	Order no.
PTFE filter, inside diameter 5 mm suitable for protection against dust, not water-proof	**ZB9646SKR**

Variants

	Order no.
Miniature sensor for temperature / humidity, with fitted high-temperature cable, length 2 meters, with ALMEMO® plug	**FHA646R**

DAkkS accredited calibration or factory calibration KH9xxx temperature, humidity for measuring chain (sensor + device), see chapter „Calibration certificates“. DAkkS accredited calibration meets all the requirements regarding test resources laid down in DIN EN ISO/IEC 17025.