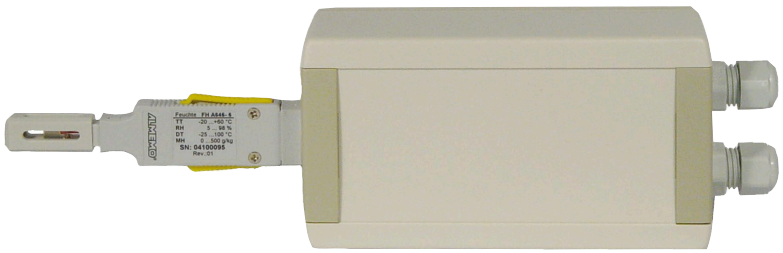
Transmitter in wall-mounted housing MA 8646 for capacitive ALMEMO® humidity sensor FHA 646



Transmitter MA8646-0 with plug-in sensor FHA6466

- Twin analog transmitters for capacitive ALMEMO® humidity sensors (not for dewpoint sensor FHA646DTC1 or digital ALMEMO® D6 sensors)
- Humidity sensor, plug-in, can be exchanged as and when necessary.
- Analog output range can be scaled on the sensor connector.
- For stationary measuring operations, housing suitable for wall-mounting
- Versions available for different supply voltages.

Technical data

Operative range	(see humidity sensor)
Humidity measuring circuit	
Measuring range	0 to 100 % relative humidity (%RH, HRH, HcRH)
Sensor	capacitive
Accuracy	±2 % RH in the range <90 % RH at nominal temperature
Reproducibility	1 % at nominal temperature
Nominal temperature	+23 ±3 °C
Transmitter, accuracy	±0.5 % RH
Temperature measuring circuit	
Measuring range	-50 to +125 °C
Sensor	NTC type N
Accuracy	0 to +70 °C ±0.1 K -20 to 0 °C ±0.4 K +70 to +100 °C ±0.6 K
Reproducibility	0.1 K
Transmitter, accuracy	±0.1 K
Outputs	2 x 0 to 10 V (load >100 kilohms)
Resolution	12 bit (4000 digits)
Temperature drift	±0.02 % / K
Nominal temperature	+23 ±3 °C
Option R3	2 x 0/4 to 20 mA (load <500 ohms)
Output range	Standard 0 to 100 % RH, -30 to +70 °C Set to customer-specific needs before leaving our factory or programmed by the user in the sensor connector using ALMEMO® device
Power supply	Mains 230 V, + 10 to 15 %, 50 to 60 Hz (Option U5 : 110 V)
Option U	10 to 30 VDC, electrically isolated
Option U0	13 to 28 VDC, not electrically isolated
Current consumption	approx. 30 mA (no load)
Connections	Screw terminals
Cable bushing to the wall or through grommets at end	
Housing	Wall-mounted housing, plastic 123 x 68 x 49 mm
Protective class	IP40
Ambient conditions	
Operating temperature	-10 to +60 °C
Storage temperature	-30 to +70 °C
Ambient humidity	10 to 90 % RH non-condensing

Option

	Order no.
Analog output, 2 x 0 to 20 mA	**OA8646R3**
Analog output, 2 x 4 to 20 mA	**OA8646R4**
Other analog output range PLEASE SPECIFY WHEN ORDERING !	
Programming on the humidity sensor connector	**OA9000PR**
Supply voltage 13 to 28 VDC not electr. isolated	**OA8646U0**
Supply voltage 0 to 30 VDC electr. isolated	**OA8646U**
Supply voltage 110 VAC, 50 - 60 Hz	**OA8646U5**

Humidity sensor including manufacturer's test certificate

	Order no.
Plug-in sensor, –20 to +60 °C	**FHA6466**
Stainless steel tube, with 1.5-meter cable, –20 to +80 °C	**FHA646E1C**
Miniature sensor, with 2-meter cable, -30 to +100 °C	**FHA646R**

Advisory note
Dewpoint sensor FHA646DTC1 and digital ALMEMO® D6 sensors cannot be connected.

Variants including manufacturer's test certificate

	Order no.
Temperature / humidity transmitter in wall-mounted housing. Outputs 2 x 0 to 10 V (equivalent to 0 to 100 % RH and -30 to +70 °C). Supply voltage 230 VAC including wall unit, without sensor	**MA86460**
DAkkS/DKD or factory calibration KH9xxx, temperature, humidity, for measuring chain (sensor + transmitter) (see chapter „Calibration certificates“)	

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