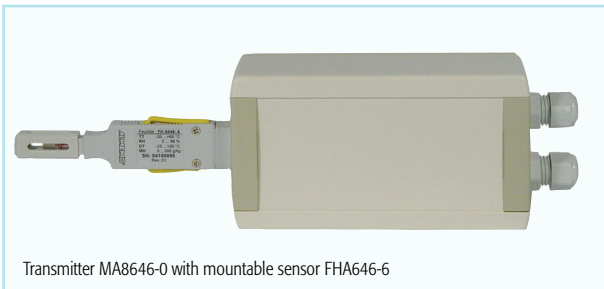


## Wall-housing transmitter MA 8646 for capacitive ALMEMO® humidity sensor FHA 646



Transmitter MA8646-0 with mountable sensor FHA646-6

- ▶ Twin analog transmitters for capacitive ALMEMO® humidity sensors. (not for dewpoint sensor FHA646DTC1)
- ▶ Humidity sensors can be connected, 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.

### Options :

Analog output, 2 x 0 to 20 mA	Order no. : OA8646R3
Analog output, 2 x 4 to 20 mA	Order no. : OA8646R4
Other analog output range, PLEASE SPECIFY WHEN ORDERING !	
Programming on the humidity sensor connector	Order no. : OA9000PR
Voltage supply : 13 to 28 V DC not electrically isolated	Order no. : OA8646U0
Voltage supply : 10 to 30 V DC electrically isolated	Order no. : OA8646U
Voltage supply : 110 V AC, 50-60 Hz	Order no. : OA8646U5

### Humidity sensors (including manufacturer's test certificate)

Mountable sensor, -20 to +60 °C	Order no. : FHA6466
Plastic tube, with 1.5-meter cable, -20 to +60 °C	Order no. : FHA646E1
Stainless steel tube, with 1.5-meter cable, -20 to +80 °C	Order no. : FHA646E1C
Miniature sensor, with 2-meter cable, -30 to +100 °C	Order no. : FHA646R
up to 16 bar, with 1.5-meter cable, -20 to +60 °C	Order no. : FHA646E7C

### Advisory note

Dewpoint sensor FHA646DTC1 cannot be connected.

### Types (including manufacturer's test certificate)

Humidity / temperature transmitter in wall-mounted housing,  
Outputs : 2 x 0 to 10 V (equivalent to 0 to 100 % r.H. and -30 to +70 °C)  
Supply voltage 230 V AC, including wall unit, **without sensor**

### Technical data :

Operative range : see humidity sensor

#### Humidity measuring circuit

Measuring range :	0 to 100 % r.H. (%rH, HrH, HcrH)
Sensor :	capacitive
Accuracy :	± 2 % r.H. in the range < 90% r.H. at nominal temperature
Reproducibility :	1 % at nominal temperature
Nominal temperature :	+23 ± 3°C
Transmitter, accuracy :	± 0.5 % r.H.

#### 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 :

Resolution :	12 bit (4000 digits)
Temperature drift :	± 0.02 % / K
Nominal temperature :	+23 ± 3°C
Option R3 :	2 x 0/4 to 20 mA (burden : <500 ohm)

Output range : Standard 0 to 100 % r.H., -30 to +70 °C Settable to customer-specific needs either before leaving the factory or programmed on the sensor connector by the user using ALMEMO® device

**Power supply :** Mains 230 V +10%/ -15%, 50 to 60Hz (Option U5 : 110 V)  
Option U : 10 to 30 V DC, electrically isolated  
Option U0 : 13 to 28 V DC, not electr. isolated

Current consumption : approx. 30 mA (no load)

#### Connections :

Cable bushing : on the wall side or through grommets (PG) on end of device

**Housing :** Wall-housing, plastic  
123 x 68 x 49 mm,  
protection system IP 40

#### Environmental conditions :

Operating temperature :	-10 to +60 °C
Storage temperature :	-30 to +70 °C
Ambient relative humidity :	10 to 90 % rH (non-condensing)