

# Humidity / Temperature Transmitter incl. Sensor GHTU



- On-site display for humidity and temperature
- Output signals freely scalable
- Several design types

## Characteristics

The EBHT is used for long-term monitoring, indoor climate monitoring and monitoring of storage rooms. The sensor module is particularly suitable for industrial applications due to its robust surface-mounted housing.

Due to the availability of several design types (like e.g. for surface or duct mounting, with sensor in distance to housing or with weather protection shield) the GHTU are appropriate for almost all applications.

The housing of the module is made of robust ABS. The modules have an on-site display, therefore direct configuration is possible.

## Design types

	1R	1K	2K	KABEL	SHUT
Design type	surface design	surface / duct design	duct design	surface design with cable	surface design with weather proofing
Length of probe / cable / hat	EL = 50 mm	EL = 220 mm	EL = 220 mm	in distance to housing, 1 m Teflon cable	Hat = 82 mm
outlet probe / cable	on the side	on the side	bottom	on the side	bottom

## Other features

- 1R / 1K / 2K : unscrewable protective cap with gauze filter insert made of stainless steel (105 µm mesh size)
- KABEL : includes high humidity sensor (HO) and varnished board (LACK) by default
- SHUT : weather protection shield made of plastic, reduces distortions by sun / rain, includes high humidity sensor (HO) and varnished board (LACK)

## Technical data

Measuring ranges Humidity: Standard High humidity	0.0..100.0 % RH recomm. measuring range: 20..80 % RH recomm. measuring range: 5..95 % RH
Temperature	-40.0..+100 °C; 120.0 °C < 1min (-40.0..+248.0 °F)
Measuring sensors	capacitive polymer humidity sensor and Pt1000
Accuracy Humidity Temperature	±2.5 % RH (at recomm. measuring range) ±0.4 % of m.v. ±0.2 °C
Electric connection	elbow-type plug EN 175301-803/A, output 2-wire, max. 1.5 mm <sup>2</sup> each
Output signal	2x 4..20 mA, 0..1 V, 0..10 V, freely scalable
Power supply	12..30 V DC for 4..20 mA or 0..1 V 18..30 V DC for 0..10 V
Permissible burden	$R_A [\Omega] = (U_V [V] - 12 V) / 0.02 A$
Permissible load	$R_L [\Omega] > 3000 \Omega$
Display	10 mm high, 4-digit LCD-display
Housing	ABS, working temperature: -20..50 °C
Protection class	IP65 (housing)

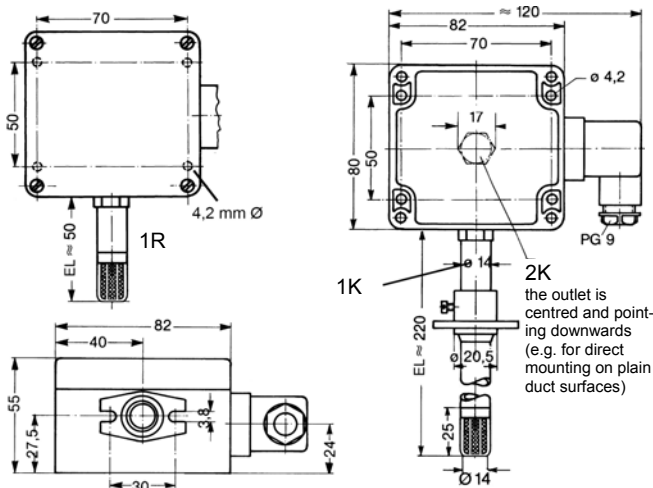
continued on next page

**Product Information**

**Analysis - Humidity**

**Dimensions**

- 1R / 1K / 2K : 82 x 80 x 55 mm (H x W x D)  
(without probe/plug)  
tube-Ø 14 mm
- KABEL : 82 x 80 x 55 mm (H x W x D)  
(without probe/plug)  
probe tube in distance to housing,  
sensor head (Ø 14 x 68 mm)
- SHUT : 82 x 80 x 55 mm ((H x W x D)  
(without probe/plug)  
shield Ø 110 mm, height 140 mm



<b>4. Output signal</b>	
GA1	4..20 mA, freely scalable, output signals are <b>electrically isolated</b>
AV2	0..1 V, freely scalable, output signals are <b>not</b> electrically isolated
AV3	0..10 V, freely scalable, output signals are <b>not</b> electrically isolated
GV2	0..1 V, freely scalable, output signals are <b>electrically isolated</b>
GV3	0..10 V, freely scalable, output signals are <b>electrically isolated</b>
<b>4. Option (general)</b> (combination of multiple options possible)	
00	without option
LACK	board varnished on both sides (for outdoor usage) standard for types KABEL and SHUT
UNI	selectable humidity display unit Instead of displaying and output the standard humidity value you can change to one of the following values via interface or VO-display: <ul style="list-style-type: none"> <li>• wet bulb temperature</li> <li>• dew point temperature</li> <li>• enthalpy</li> <li>• atmospheric humidity</li> <li>• absolute humidity</li> </ul>

Ordering example:  
GHTU-KABEL-MP-HO-000-GA1-LACK-UNI

**Accessories / Spare parts**

**Spare protective cap**

made of plastic with gauze filter insert made of stainless steel (suitable for standard and high humidity)

**Brass filter**

(not suitable for high humidity)

**Ordering code**

1. 2. 3. 4.  
GHTU -  - MP -  -  -

<b>1. Design type</b>	
1R	Surface design
1K	Surface / duct design
2K	Duct design
KABEL	Surface design with cable (incl. HO + LACK)
SHUT	Weather protective shield / heat-protective hat (incl. HO + LACK)
<b>2. Option (sensor)</b>	
00	standard sensor (standard for 1K, 1R and 2K) (recomm. measuring range: 20..80 % RH)
HO	high temperature sensor (standard for KABEL and SHUT) (recomm. measuring range: 5..95 % RH)
<b>3. Fitting length EL</b>	
000	without fitting length (for KABEL / SHUT)
050	length = 50 mm (standard for type 1R)
220	length = 220 mm (standard for type 1K / 2K)
300	length = 300 mm
400	length = 400 mm
500	length = 500 mm