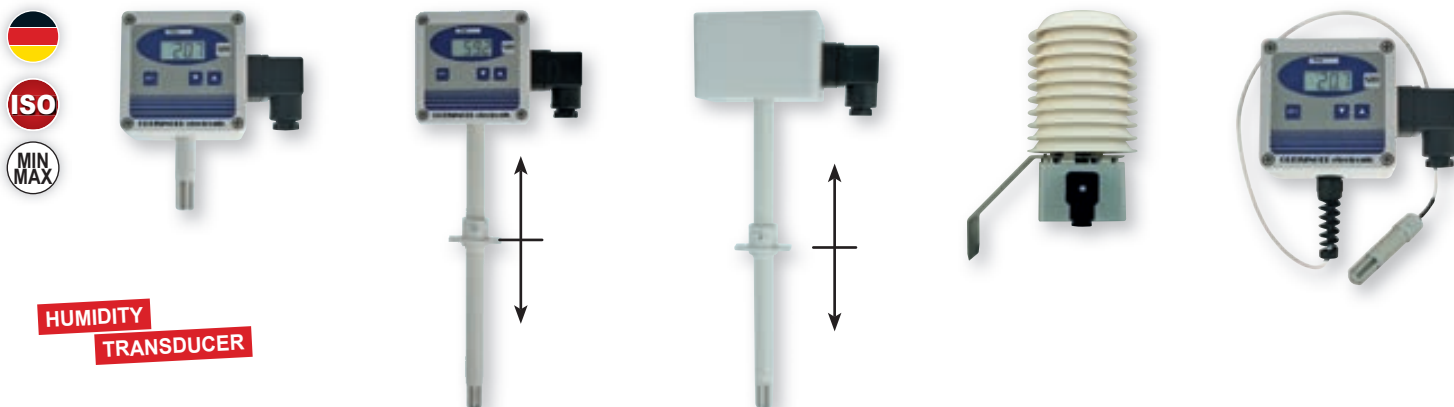# HUMIDITY TRANSDUCER

GRHU-1R-MP
Wall version

Standard version:
Probe length: 50 mm

GRHU-1K-MP
Wall / channel version

Standard version:
Probe length: 220 mm

GRHU-2K-MP
Channel version

Standard version:
Probe length: 220 mm

GRHU-SHUT-MP
absorption hat / weather protection

GRHU-KABEL-MP
wall version with cable and high humidity sensor

GRHU-1R-MP
Product-ID: 602938

GRHU-1K-MP
Product-ID: 602941

GRHU-2K-MP
Product-ID: 602943

GRHU-SHUT-MP
Product-ID: 603953

GRHU-KABEL-MP
Product-ID: 608043

General:

The humidity transducer offers even greater possibilities to compensate the special sensor characteristics due to the newest microprocessor technology. Regarding precision, temperature stability and functionality a new dimension is entered. The transducer can be used for almost all applications due to the different types (e.g. wall or channel mount, with separated probe or with heat absorption hat) and the wide temperature range (electronic: -25 °C ... +50 °C; sensor: -40 ... +120 °C).

Specifications:

Measuring ranges:

Humidity:	0.0 ... 100.0 % RH (temperature compensased)
Temperature:	-40.0 ... 120.0 °C or -40,0 ... 248 °F
Recommended humidity range:	20.0 ... 80.0 % RH (standard) 5.0 ... 95.0 % RH (with option high humidtiy)
Display options:	with option UNI an alternative display unit can be shown instead of the humidity measuring value. The unit selection will be done via keyboard.
Wet bulb temperature	-27.0 ... +60.0 °C
Dewpoint temperature	-40.0 ... +60.0 °C
Enthalpy	-25.0 ... +999.9 kJ/kg
Atmospheric humidity	0.0 ... 640.0 g/kg
Absolute humidity	0.0 ... 200.0 g/m³

Accuracy: (at 25 °C and in recommended range)

Display:	humidity: ±2.5 % RH temperature: ±0.4 % of measuring value ±0.2 °C
Additional output signal:	±0.2 % FS
Temperature compensation:	automatically
Auxiliary energy:	12 ... 30 VDC or 18 ... 30 VDC (for output: 0-10 V)
Reverse voltage protection:	50 V, permanently

Perm. impedance (at 4-20 mA): R_A [Ω] ≤ (U_V [V] - 12V) / 0.02 A

Permissible load (at 0-1(10)V): R_L [Ω] > 3000Ω

Display:	approx. 10 mm high, 4-digit LCD-display, alternating humidity and temperature display
Working temperature:	-25 ... +50 °C (electronics)
Sensor head and tube:	-40 ... +100 °C - for short time up to 120 °C
Storage temperature:	-25 ... +70 °C
Relative humidity (electronic):	0 ... 95 % RH (non-condensing); If there is a risk of condensation due to temperature changes, please use our encapsulated or lacquered types (optionally available).

Housing:	ABS (IP65)
Sensor tube:	tube 14 mm Ø, with screw-type protection cap
Design type Kabel:	with separated sensor tube, sensor head (Ø14x 68 mm) connected to device via 1 m teflon cable. Inclusive option high-humidty sensor
Design type Shut:	heat absorption hat / weather protection shield **Application:** The heat absorption hat is especially designed for measurements in the open air. The measuring results that can be achieved will not be influenced by either sun or rain. **Design:** Heat absorption hat made of plastic, Ø 110 mm, approx. 140 mm high. Additionally equipped with a stainless steel base for wall mounting, with 3 fixing holes for screws with a max. shaft Ø of 5 mm. Large projection approx. 160 mm.
Electric connection:	elbow-type plug acc. to EN 175301-803/A (IP65)
Mounting:	4 housing holes for wall mounting or by means of plastic tube clamps for duct mounting
Functions:	min-/max-value memory, offset and slope adjustable, output signal scaleable

Ordering code:

GRHU - ⬚1 - ⬚2 - ⬚3 - ⬚4 - ⬚5 -GE

Greisinger			
1.	Design type		
	1R-MP	Surface design	
	1K-MP	Surface / duct design	
	2K-MP	Duct design	
	KABEL-MP	Surface design with cable and high humidity sensor	
	SHUT-MP	Weather protective shield / heat-protective hat incl. Option LACK and HO	
2.	Options Sensor		
	-00	Standard sensor	
	-HO	High humidity sensor	
3.	Fitting length EL		
	-050	50 mm (Standard for 1R)	
	-220	220 mm (Standard for 1K / 2K)	
	-300	300 mm	
	-400	400 mm	
	-500	500 mm	
4.	Output signal		
	...	4-20 mA (Standard)	
	-AV1	Analog output 0-10 V	
	-AV01	Analog output 0-1 V	
5.	Option		
	-LACK	Encapsulated PC Board	
	-UNI	Selectable humidity display instead of the standard humidity values	