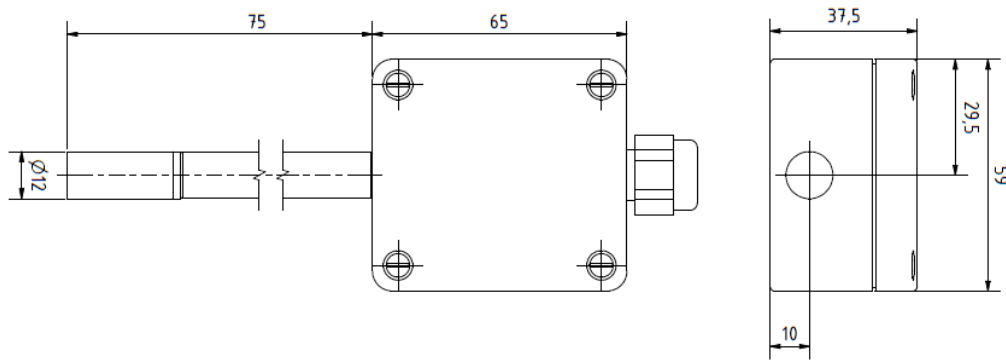


## Technical Drawing



## Type Selection

Article No.	Output Temp.	Output Humidity	Display
OT-RHT-A-1010	0-10V	0-10V	no
OT-RHT-A-2020	4-20mA	4-20mA	no
OT-RHT-A-0010	passiv	0-10V	no
OT-RHT-A-1010D	0-10V	0-10V	yes
OT-RHT-A-2020D	4-20mA	4-20mA	yes
OT-RHT-A-0010D	passiv	0-10V	yes

**DDCtech**

°C Temperatur % Feuchte CO<sup>2</sup> Luftqualität Pa Druck

## OT-RHT-A-.....

Outdoor sensor for humidity and temperature



Made in Germany

### Application

Device for measuring the relative humidity/temperature in outdoor areas or indoor areas subject to high requirements. The measuring transducer records the temperature and humidity via an internal sensor and converts the value into a standardized analogue output signal in the range between 0-10V/4-20 mA. Additionally, a passive temperature sensor can be connected. The sensor features long-term stability and no recalibration is required. Optional with display.

### Accessoires (optional)



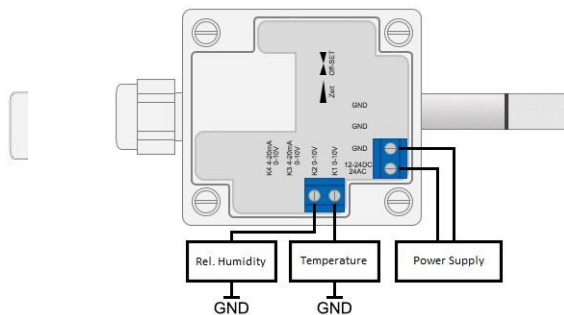
Plastic filter

## Technical Data:

Power supply at 0-10 V:	16...36 V / DC, 12-24 V / AC
Power supply at 4...20mA:	16...36 V / DC
Sensor element humidity:	capacitive Sensor
Sensor element temperature:	capacitive Sensor
Sensor element temperature with passive sensor:	According to customer
Measuring range humidity:	0...100% r. h.
Output humidity:	0...10V or 4...20mA
Tolerance humidity at 35%...70% r. h.:	± 2% (25...90% r. h.)
Measuring range temperature:	0°C ... +50°C
Output temperature active:	0...10V or 4...20mA
Tolerance temperature:	± 0,5K
Analog output load 0-10V:	10...100 kOhm
Analog output load 4...20mA:	300...1000 Ohm
Operating temperature:	-30°C ... +50°C
Operating humidity:	0...98% r. h.
Response time r. h.:	8 sec. (63% dew)
Connection:	Screw-In terminals 1,5 mm <sup>2</sup>
Casing:	Material ABS, color RAL9010
Measuring range dew point:	-50°C to +100°C
Measuring range absolut humidity:	0-30g/m <sup>3</sup>
Power supply at 0-10 V:	16...36 V / DC, 12-24 V / AC
Power supply at 4...20mA:	16...36 V / DC
Case:	Material PA6 15% GK, Color RAL9010
Size Case (L x B x H):	65 x 60 x 38 mm
Sensor Pipe (W x L):	12 x 75 mm VA

## Electrical Connection

### 0-10V



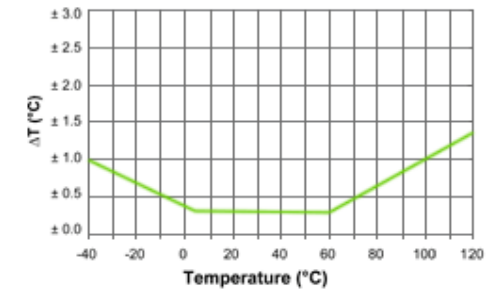
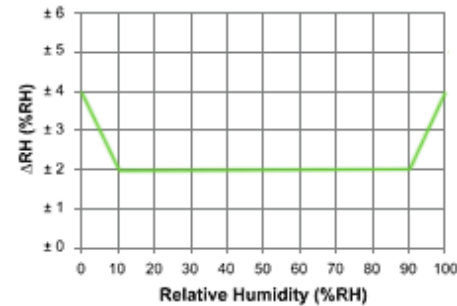
Important: parallel operation with the 24VAC -phase connection is required otherwise a short circuit may occur. The units are designed to operate at low voltage protection. When connecting the equipment, the technical data apply. Data acc. To data sheet. Especially with passive sensors (eg PT100, ...) in two-wire version, the wire resistance of the lead is taken into account. Maybe it has to be corrected in the evaluation electronics. Due to the self-heating of the wire current affects the accuracy of the measurement. Therefore, this should not be chosen larger than 1mA. Notes: The sensor is designed only for normal ambient conditions (room air), aggressive gases can destroy him. The installation has a decisive effect on the measurement accuracy. Window (cold outer wall) or door close (draft) should be avoided.

# DDCtech

°C Temperatur % Feuchte CO<sup>2</sup> Luftqualität Pa Druck

## Accuracy

### relative Humidity



## DIP-Switch



Relative Humidity (0-100%):

DIP 1 = Off  
DIP 2 = Off



Absolute Humidity (0-30g/m<sup>3</sup>):

DIP 1 = Off  
DIP 2 = On



Dew Point (-50°C bis 100°C):

DIP 1 = On  
DIP 2 = Off

## General Information

- Installation of the equipment must be performed by qualified personnel.
- The units may be connected with the power off.
- The safety of the VDE, the states, the TÜV and the local energy supply company must be observed.
- The EMC guidelines must be observed. It can be used shielded connecting lines, laying parallel with current-carrying lines should be avoided.
- The operating near devices that do not comply with EMC directives may adversely affect the operation of the equipment.
- The buyer is responsible for ensuring compliance with the applicable building and safety guidelines.
- This product should not be used for safety-related tasks, such as for the protection of persons and emergency stop switch on equipment.
- Improper use of any defects and damages are excluded from the warranty and liability.
- Consequential damages caused by a fault in this device are excluded from warranty or liability.
- Only the technical data and connecting conditions of installation and operating instructions supplied with the instrument. Changes are always possible in terms of technical progress and the improvement of the products.
- Changes of the device by the user, all warranty claims.