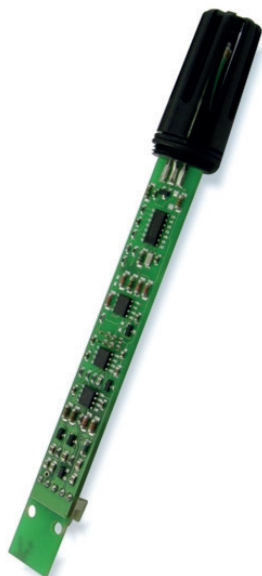


OPERATION MANUAL



Humidity probe module and humidity/temperature module with voltage output 0...10 V

Description



Characteristic features

- Humidity/temperature probe module with voltage output
- Output 0...10 V for 0...100% RH
- Operating voltage 12...24 V DC
- High grade, capacitive polymer sensor
- Supplied in ready-to-connect and calibrated condition
- Stainless steel housing as accessories (optional)
- Optionally with temperature measuring (Type -HYTE)

Areas of application

- Room climate measurement
- Building automation
- Humidity probe for air conditioning equipment
- Customised regulation device
- Humidity regulation for sanitary rooms
- Weather station

Technical data

Humidity measurement	
Sensor humidity	Capacitive polymer sensor
Humidity measuring range	0...100% RH
Humidity operation range	10...90% RH, without condensation
Accuracy at 23°C	<±3% RH (from 20% RH to 90% RH)
Output scaling	0...10 V ~ 0...100% RH
Sensor temperature	Platinum resistor
Temperature measuring range	0... 50 °C
Accuracy temperature	±0,5 °C (between 0...+50 °C)
output scaling	0...10 V ~ 0...+50 °C
General	
Operating voltage	12...24 V DC
Operating current	<10 mA
Dimensions	PCB (LxH) 106x13 mm Protection cage (LxØ) 32xØ17 mm Overall (LxØ) 143x17 mm
Connection	5-pin connection strip RM 2,54 mm
CE-conformance	2014/30/EU
EMV-noise emission	EN 61000-6-3:2011
EMV-noise withstanding	EN 61000-6-1:2007
Scope of supply	Humidity/temperature module, calibrated, with documentation
Articleno.	HY-ANA-10V (Humidity probe module) HYTE-ANA-10V (Humidity/temperature probe module)

Range of application

The universal humidity/temperature module delivers output voltage of 0...10 V proportional to relative air humidity of 0...100% RH so that it can be further processed as standard signal in regulation and measuring systems.

The humidity values are captured with the help of high grade, capacitive humidity sensors. The signal processing in the module takes place with the help of a special ASIC, which corrects the linearity error and also the temperature dependence of sensor element, because of which a good measuring accuracy and stability is achieved. The power supply is through a stabilised voltage of 12 to 24 V DC. All signals are through a 5-pin plug connector with RM 2.54. The module is supplied with sensor head and plastic protection cage and is calibrated at two points and examined at three points.

Note

The model is for simultaneous measurement of temperature at the measuring location is available as product variant (type -HYTE), which converts the temperature measurement range of 0...50 °C into a standard signal of 0...10 V.

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Mounting

The sensor holder is provided with M16x1 threads and can be screwed onto customised housings. In case there is a danger of direct water effect, the sensor head should be mounted upside down and covered with water repellent protection filters. The measuring location must show representative climate conditions. Air currents or heat radiation should be avoided

The measuring probes are digitally calibrated at works. A re-calibration by the user is not required due to long term stability of the sensor elements.

Connection layout

Pin	Function
1 TEMP	Unoccupied/temperature voltage output
2 HYGRO	Humidity voltage output
3 GND	Power supply and analog ground
4 VCC12V	Operating voltage 12...24 V
5 TESEN	Unoccupied

Ordering number format

Art.-No.	Article
HY-ANA-10V	Measuring probe with analog output 0...10 V Only humidity measurement
HYTE-ANA-10V	Measuring probe with analog output 0...10 V Humidity and temperature measurement

Scope of supply

The item is delivered as a ready-to-connect, calibrated module with protection cap and documentation.

Accessories (optional)

For applications, where temperature measurement is additionally required at the measuring location, a model is available with additional amplifier of 0...10 V for temperature signal (type HYTE).

The high grade metal housing with cable crack protection is provided with a M16x1 thread for sensor holder and augments the module to a full fledged measuring probe.

A ready-made 5-pin connection cable of 2 m length is available as accessories. Special lengths are available on request.

The fine pored, hydrophobic PE sinter filter can be inserted into the protection cage and protects the sensor from dust, deposits and direct water effects.

Accessories	Art.-No.
Stainless steel housing Ø17xL195 mm	GEH-HYANA
PE sinter filter	0133 0011
Spare-protection cap	0192 0303
Connection cable 2 m, pluggable on the module side the other side is with tinned strands	KAB-HYTEMOD-ANA

Attention

Please avoid extreme mechanical and inappropriate exposure.

The device/product is not suitable for potential explosive areas and medical-technical applications.

