

# Humidity - Temperature - Dew Point Transmitters & Hygrostats

## HVAC40 series

### **SIMPLE IS BEST**

Blind transmitters,  
optionally supplied with display

### **COMPLETE RANGE, THE PERFECT FIT FOR HVAC**

Models with **fixed vertical probe**, **duct horizontal probe** or probe **with cable**

### **THE RELIABLE SOLUTION: INSTALL AND FORGET**

Factory calibrated and ready for use

### **PERFORMS IN ANY ENVIRONMENT**

Stainless steel filter to protect the sensor  
against dust and particles

### **FLEXIBLE RELAY SETTINGS**

Settable threshold - hysteresis and delay  
Front alarm LED and audible alarm

## HVAC40 series: the result of 40 years of knowledge combined with best practice

HVAC transmitters need to be stable, need to be low maintenance and need to last forever.

Over 40 years of experience in worldwide applications combined with a new design on accuracy, stability, simplicity and connectivity: this is the **HVAC40 series**.

Simple to use, easy to install. Made to measure for years and years without any deviation: stable and fit for the purpose.

To be connected to any building automation system: with a choice on analog outputs or with the highly stable RS485 Modbus connection.

Also available as Hygrostat with direct relay control.

Standard version supplied as a blind transmitter, but in cases where it is necessary an optional display is available for all versions.

Simple to install, simple to use. Fit for the application: best quality at best cost!



## MAIN APPLICATIONS

HVAC  
Building Automation  
Cleanrooms  
Agriculture  
Humidifiers

## TECHNICAL SPECIFICATIONS

Sensor	Interchangeable digital relative humidity and temperature sensor
Measuring range	0...100 % RH / recommended 5...80 % RH -20...+80 °C / -20...+80 °C Td
Resolution	0.1 %RH / 0.1 °C / 0.1 °C Td
Accuracy	Typ. $\pm 2.5$ %RH (5...80 %RH) @ $t = 15...35$ °C Typ. $\pm 0.3$ °C @ $t = -20...70$ °C / $\pm 0.5$ °C @ $t =$ remaining range
Long term drift	Typ. < 0.25 %RH/year Max. 0.03 °C/year
Response Time	10 s (63 % of final value with 1 m/s air flow)
Output (depending on the model)	<ul style="list-style-type: none"> <li>Active analog 0...20 or 4...20 mA or 0...10 Vdc</li> <li>2-wire (current loop) 4...20 mA</li> <li>Digital RS485 Modbus-RTU</li> <li>SPDT Relay switch - 3 A/250 Vac - 3 A/30 Vdc resistive load</li> </ul> <ul style="list-style-type: none"> <li>- RH: analog outputs are corresponding to a full scale of 0 to 100 %</li> <li>- Temperature: analog outputs are user configurable, standard version -20...+80 °C.</li> </ul>
Alarm	<p>Front red LED - measurement detected outside the measuring range (except relay versions)</p> <p><b>For relay versions</b> - front red LED + internal buzzer for exceeding of the set measurement threshold</p>

Power Supply	<ul style="list-style-type: none"> <li>Active analog out.: 24 Vac <math>\pm 10\%</math> or 18...40 Vdc</li> <li>Current loop: 15...30 Vdc</li> <li>Modbus-RTU: 12...30 Vdc</li> <li>Relay: 24 Vac <math>\pm 10\%</math> or 15...36 Vdc</li> </ul>
Power Consumption	<ul style="list-style-type: none"> <li>Active current: 20 mA @ 24 Vdc and <math>I_{out} = 12</math> mA</li> <li>Voltage: 4 mA @ 24 Vdc</li> <li>Modbus-RTU: 2 mA @ 24 Vdc</li> <li>Relay: &lt; 1 W @ 24 Vdc</li> </ul>
Electrical connections	Screw terminal block, max 1.5 mm <sup>2</sup> , PG9 cable gland
Connection to PC	<p>RS232 serial port - it can be connected to a USB port by using cable CP27 (except Modbus versions)</p> <p><b>Modbus versions:</b> RS485 serial port - it can be connected to a USB port by using RS48 adapter</p>
Sensor operating conditions	-20...+80 °C * The sensor is protected from water and dust
Instrument operating conditions	-20...+60 °C / 0...95 %RH
Storage temperature	-20...+80 °C
Dimensions	80 x 84 x 44 mm (housing)
Protection degree	IP65

\*best performance between 20...80 % RH humidity range. Long term exposure outside this range, especially at high humidity, may temporarily offset the sensor response

## AVAILABLE VERSIONS

## ORDERING CODES

HVAC40

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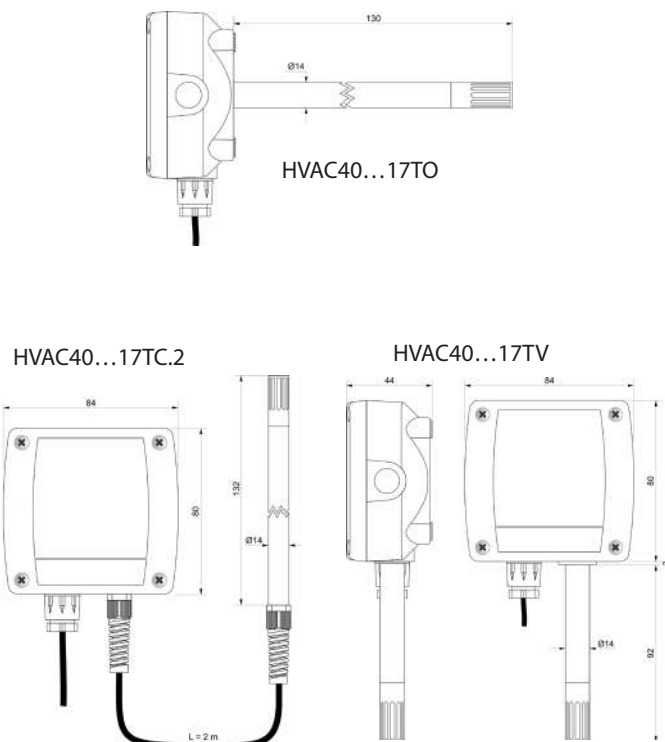
Blank = without LCD  
L = with LCD (standard on R versions)

TC.2 = Probe with 2 m cable  
TO = Horizontal probe  
TV = Vertical probe

Blank = 0...20 mA / 4...20 mA active current analog output  
A = 2-wire (current loop) 4...20 mA output  
V = 0...10 V voltage analog output  
S = RS485 Modbus-RTU output  
R = ON/OFF relay switch

### Accessories

CP27	USB connection cable
RS48	Cable with built-in USB/RS485 converter.
HD33	33%RH saturated solution
HD75	75%RH saturated solution
HD9008.31	Wall flange with cable gland to fix Ø 14 mm probes.
PG16	AISI304 cable gland for Ø 14 mm probes.
RS27	RS232 null-modem serial connection cable



In order to ensure the quality of our instruments, we are constantly re-evaluating our products. Improvements can imply changes in specification; we advise you to always check our website for the newest version of our documentation.

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