

PRODUCT OVERVIEW

# Temperature & Relative Humidity Products



## Fast

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## Accurate

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## Low Maintenance

- Relative humidity hygrometers
- High precision and long term stability
- Pre-calibrated interchangeable probes
- Simple operation and maintenance
- Corrosion resistant
- Low temperature coefficient
- Displays relative, absolute and dew point

The Hygrocontrol hygrometer measures the amount of moisture or humidity in the air, or any confined spaces. They can measure absolute, relative, or dew point temperature. Hygrocontrol hygrometers use a capacitance type sensing element with polymer dielectric medium, available in general purpose and hazardous areas. Available in wall or duct mounting as well as with various remote probes. Works well under a wide temperature range and maintains stable condensation tolerance. Ideal for long-term application with low maintenance. They are the perfect solution for every measurement for many industrial applications.

## Applications

- Industrial process monitoring and control
  - Automotive
  - Food and beverage
  - Chemical
  - Industrial manufacturing
  - Pharmaceutical
  - Semiconductor
  - Museums
  - Printing and paper industries
- Industry dryers and humidifiers
- Climate, environmental and test chambers
- Heating, ventilation and air-conditioning (HVAC)
- Warehouses and clean rooms

## Hygrocontrol Type 81/82

The Type 81/82 is a wall-mounted, high-precision relative humidity and temperature hygrometer ideal for industrial use. Minimal drift, easy mounting, easy to configure, and install. The Type 81/82 delivers excellent stability even with temperature fluctuations. A variety of probes available to satisfy many applications.

- Dew point °C and °F
- Absolute humidity g/scm
- Specific humidity g/kg/lbs
- Enthalpy kJ/kg/lbs

### Ranges:

Humidity ..... 0 to 100 %RH

Temperature ..... -20 to +50 °C (-4 to +122°F)

### Repeatability:

Humidity ..... <1.0 %RH / 0.5%RH

Temperature ..... <0.3/ 0.1 °C (<32.54/32.18°F)

### Accuracy:

Humidity ..... +/- 2.0 %RH

Temperature ..... +/- 0.2/0.5 °C (32.36/32.9°F)

### Power Supply:

Lithium-Battery ..... 1x3.6V (AA)



Type 82

Type 81

## Hygrocontrol 2 Type 83/84

Closed loop, 2-wire instrument, relative humidity and temperature hygrometer is ideal for industrial use. This meter (4-20mA) responds to measured humidity 0-100% RH. CAN-BUS is also available for Type 84. Calibration memory for up to 10 fix points provides the highest accuracy at very high and low humidity. Minimal drift, easy mounting, easy to configure, and install. A variety of probes available to satisfy many applications.

### Ranges:

Humidity ..... 0 to 100%RH  
 Temperature ..... -50 to +150°C (-58 to +302°F)

### Repeatability/Resolution:

Repeatability ..... 0.5%RH / 0.15°C (32.27°F)  
 Hysteresis ..... 0.5%RH / 0.1°C (32.18°F)  
 Resolution ..... 0.1%RH / 0.1°C (32.18°F)

### Power Supply / Outputs:

Input ..... 12, 24 VDC

### Maximum Temperature:

Electronic Housing ..... -20 to +60 °C (-4 to +140°F)  
 Sensors ..... -50 to +150 °C (-58 to +302°F)

### Accuracy:

Humidity at 0 to +50°C (32 to 122°F) +/- 1.5 / 2.5 %RH  
 Humidity at -25 to +100°C (-13 to +212°F) +/- 2.0 / 3.0%RH  
 Humidity at -50 to +150°C (-58 to +302°F) +/- 2.5 / 4.0%RH  
 Temperature ..... +/- 0.3 / 0.5 °C (32.54 / 32.9°F)



Type 83



Type 84

## Hygrocontrol Type 85

The Type 85 is ideal for critical relative and absolute humidity and temperature measurements for general purpose areas. The exchangeable probes with built-in memory of the calibration can be replaced in seconds and allow minimal maintenance. The graphic display and accessories allow for a easy re-calibration. There are several different sensor filters available. Minimal drift, easy to configure, and install. A variety of probes available to satisfy many applications.

### Sensors:

Humidity (capacitiv)..... SE-02  
 Temperature (4-Wires)..... Pt-1000

### Ranges:

Humidity ..... 0 to 100%RH  
 Temperature ..... -50 to +150°C (-58 to +302°F)

### Accuracy of System Class A / B:

Humidity at 0 to 50°C (32 to 122°F)..... +/- 1.5 / 2.5 %RH  
 Humidity at -25 to +100°C (-13 to +212°F).... +/- 2.0 / 3.0 %R  
 Humidity at -50 to +150°C (-58 to +302°F).. +/- 2,5 / 4,0%RH  
 Temperature ..... +/- 0.3 / 0.5 °C (32.54 / 32.9°F)

### Repeatability/Resolution:

Humidity ..... <0.5%RH / 0.1°C (32.18°F)  
 Temperature ..... +/-0.15/0.1°C (32.27 / 32.18°F)

### Possible Humidity Dimensions:

%RH, g/kg, g/m<sup>3</sup>, Dewpoint °C or °F, etc.

### Maximum Temperatures:

Transmitter and Sensorhead ... -20 to +60 °C (-4 to +140°F)  
 Sensor ..... -50 to +150 °C (-58 to +302°F)

### Power Supply / Outputs:

Input ..... 85-264 VAC or 11-36 VDC/9-25VAC  
 Consumption..... approx. 4VA

### Materials and Dimensions:

Probe tubes from PP, PTFE, stainless Steel  
 Diameter 15 mm (0.6 inches) ..... Probe  
 Diameter 6.5 mm (0.3 inches) ..... Probe Cable  
 Transmitter ..... 160x80x55 mm (6.3x3.1x2.2 inches)  
 Protection Class ..... IP 65  
 Casing Material ..... Polycarbonat



Interchangeable Probes

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