

Humidity and Temperature Transmitter Type 81/82

Principal of Operation

Relative Humidity (RH) is measured by a capacitance type sensing element with polymer dielectric medium.

The temperature sensor is a Pt-1000 Ohm RTD.

Software guided multi-point calibration with up to 20 calibration points provides an accuracy of 1.5 %RH. Built-in special temperature compensation corrects humidity values for deviations caused by temperature fluctuations at the sensor and the electronics.

Applications

Model 81 is built for critical measurements of the relative humidity and temperature in ducts with general purpose area classification. Model 82 is built for similar applications but for wall-mounting.

Construction

Polycarbonate housings meet NEMA 4, 12, 13. Probes are available in different lengths and diameters, made from PTFE, stainless steel 316, or polypropylene.

Models 81/82 feature analog outputs (current or voltage) and optionally available is a graphic display.

Various sensor filter options and accessories for calibration are optionally available.

Features

1. Exceptionally accurate and stable humidity and temperature measurement.
2. Proven robust sensor design
3. Fixed-mount or flexible probes
4. Probe materials and sizes for a large variety of applications.
5. Linearized analog outputs for user selectable Engineering units
6. (RH, dew point °C/°F, etc.)

Type 81



Type 82



Technical Specifications:

SENSORS:

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

RANGES:

Humidity 0 to 100 %RH
 Temperature range:-50 to 150 °C

ACCURACY OF SYSTEM CLASS A / B:

Humidity at 0...50°C +/- 1.5 / 2.5 %RH
 Humidity at -25...+100°C +/- 2.0 / 3.0%RH
 Humidity at -50...+150°C +/- 2.5 / 4.0%RH
 Temperature +/- 0.5 °C

REPEATABILITY / RESOLUTION:

Humidity0.5%RH / 0.1°C
 Temperature +/-0.15°C / 0.1°C

POSSIBLE HUMIDITY DIMENSIONS:

%RH, g/kg, g/m³, Dewpoint °C or °F , etc.

Maximum Temperatures:

Transmitter and Sensorhead -20 to +60 °C
 Sensor.....-50 to +150 °C

POWER SUPPLY / OUTPUTS:

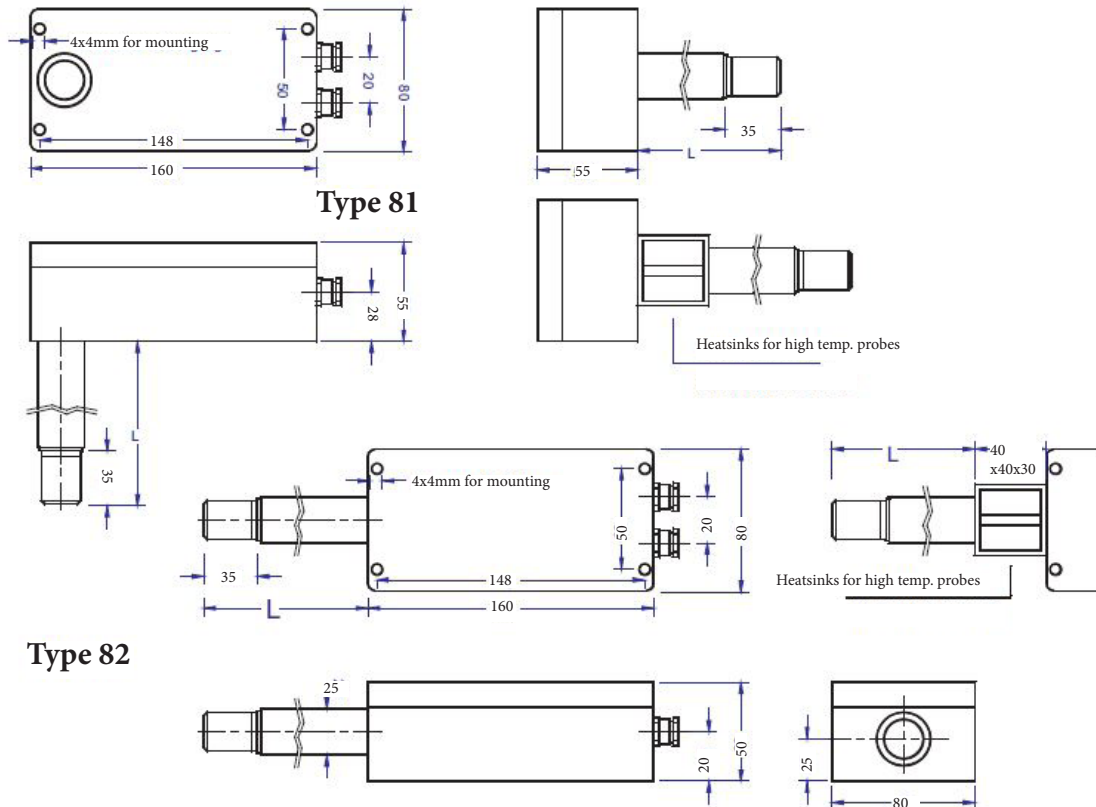
Input 85-264 VAC or 12-24 VDC
 Consumption approx. 4VA

MATERIALS AND DIMENSIONS:

Probe tubes from PP, PTFE, stainless Steel
 Diameter 15 or 25 mm Probe
 Transmitter 160x80x55 mm
 Protection Class IP 65
 Casing Material.....Polycarbonat

Dimensions and Mounting

DIMENSIONEN UND MONTAGE



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