



SHR100/SHR100-T6

Room Humidity/Temperature Sensors

0-10 V/4-20 mA

Specification Nos: See Table on Page 2.

This range of Room Humidity/Temperature sensors is designed to provide relative humidity measurement and temperature control in ventilation systems.

Models are available with humidity sensing only or humidity sensing combined with temperature sensing using a 'T' Type thermistor. 3% and 2% accuracy options are available (see Table on Page 2).

The SHR100 is an active sensor, which measures the relative humidity (%RH) and converts the measurement into an electric current 4–20 mA or a voltage level 0–10 V.

The transmitter is delivered as a complete unit, comprising an aluminum mounting flange with the sensing element and an amplifier mounted in a separate housing.

The SHR100-T is equipped with passive temperature elements - user selectable NTC 1.8 or 10 k Ω . The NTC 1.8 k Ω is for Vista products, while the NTC 10 k Ω is for I/NET products.

The SHR100-T5 is equipped with passive temperature elements - user selectable NTC 1.8 or 10 k Ω . The NTC 1.8 k Ω is for Vista products, while the NTC 10 k Ω is for continuum products.

The SHR100-T6 incorporates the 5.02 k Ω NTC network (@ 25°C) for use with Satchwell products and BMS systems.

FEATURES

- Aesthetically styled, low profile packaging.
- 0-10Vdc Humidity Output.
- .24Vac or 12-24Vdc input power.
- Humidity or humidity and temperature output.
- Removable Humidity sensor element; replacement elements available.
- 3% and 2% options available.
- Enclosure to NEMA-1 standard.

SPECIFICATIONS

SHR100/SHR100-T6

Humidity Sensor	Digitally profiled thin-film capacitive element.
Temperature Sensor	DRH7702 & DRH7703: None DRTH7712 & DRTH7713: 'T' Type
Mounting	Room
Sensing	DRH7702 & DRH7703: Relative Humidity DRTH7712 & DRTH7713: Relative Humidity and Temperature
Control Range	10-90% RH and 0 to 50°C
Dimensions	121mm Height × 79mm Width × 24mm Depth
Output	DRH7702 & DRH7703: Humidity 0 to 10Vdc or 0 to 5Vdc DRTH7712 & DRTH7713: Humidity 0 to 10Vdc or 0 to 5Vdc Temperature: see Characteristics.
Power	24Vac or 12 to 24Vdc for Humidity Sensor.
Accuracy	DRH7702: ± 2% RH, DRH7703: ± 3% RH, DRTH7712: ± 2% RH, DRTH7713: ± 3% RH.
Temperature Effect	± 0.03% RH/°C over 0 to 50°C range
Stability	± 1% RH annually @ 20°C
Enclosure	Conforms to NEMA-1 standard.
Wiring	4-wire (screened)

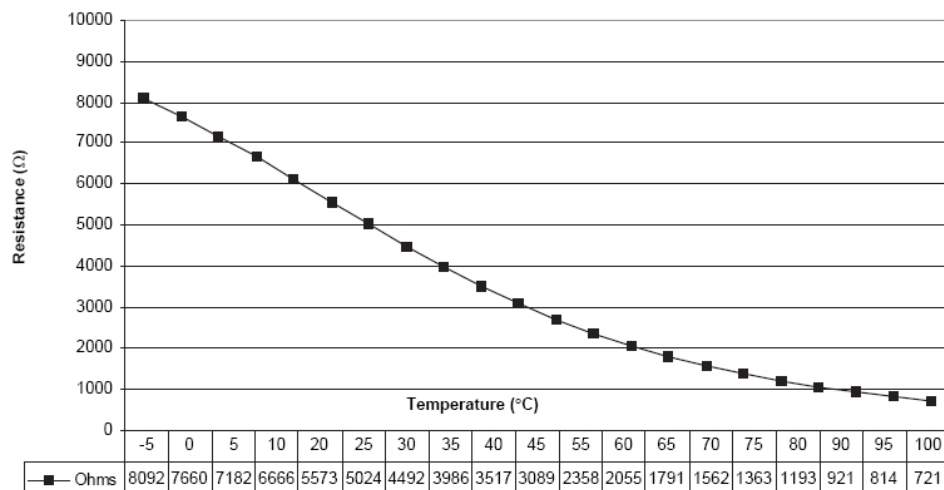
ACCESSORIES

Type	
HDS9102	Replacement Humidity Element (2%)
HDS9103	Replacement Humidity Element (3%)

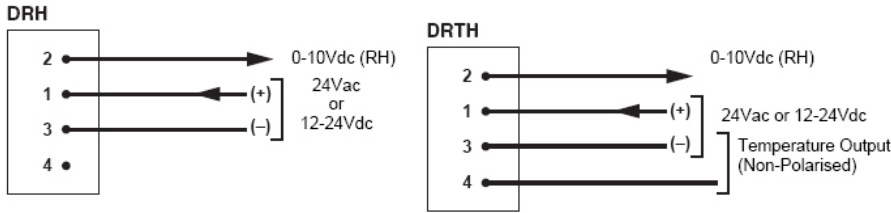
CHARACTERISTICS

Sensor Temperature v Resistance

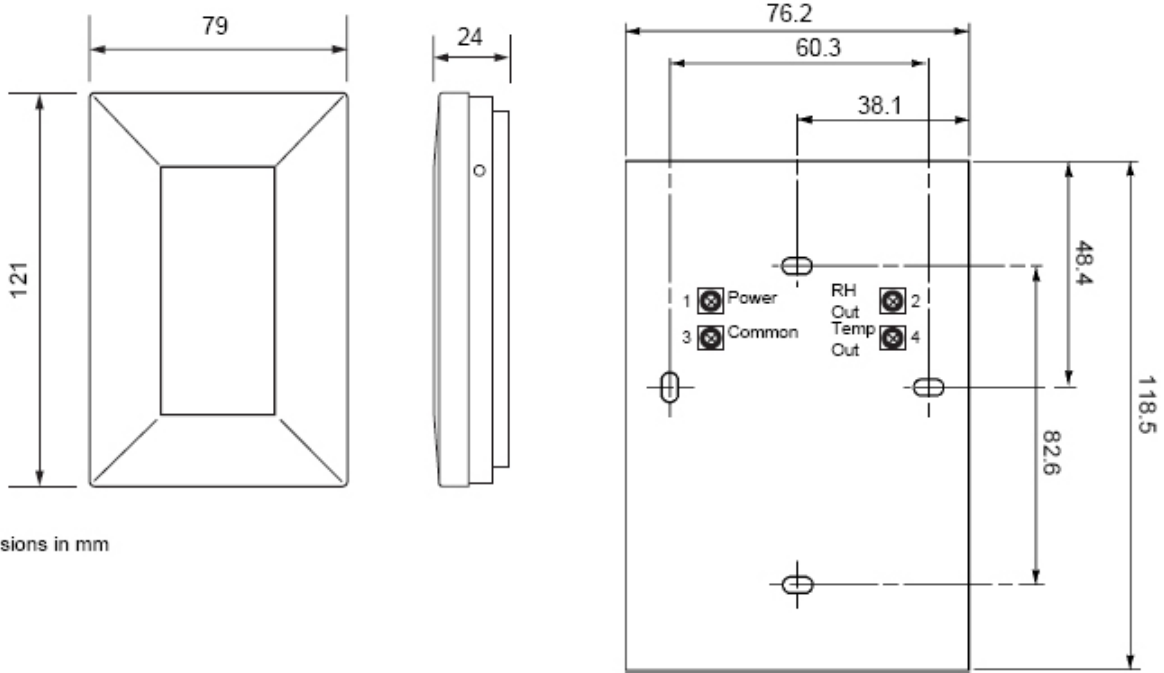
SHR100-T6: -5 to 100°C



WIRING DIAGRAMS



Dimension Drawings



Cautions

- Do not apply power to the system until it has been checked by a qualified technician and the commissioning procedures have been completed.
- If any equipment covers have to be removed during the installation of this equipment, ensure that they are refitted after installation to comply with UL and CE safety requirements.
- These sensors must only be used in conjunction with the appropriate TAC Satchwell controllers shown on Page 2.
- Observe wiring precautions given on the data sheet for the controller that the sensor will be connected to.
- Do not exceed the maximum ambient temperature.
- Interference with parts under sealed covers invalidates guarantee.
- Design and performance of TAC Satchwell equipment is subject to improvement and therefore liable to alteration without notice.
- Information is given for guidance only and TAC Satchwell does not accept responsibility for the selection and installation of its products unless information has been given to the Company in writing relating to a specific application.
- A periodic system and tuning check of the control system is recommended. Please contact your local sales office for details.

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