Tyrrell PRODUCTS

DATA SHEET

RH WALL AND OUTSIDE RH & T SENSORS

Features:

- ±2% and ±3% Accuracy Versions
- Snap fit cover
- Fully configurable LCD Display
- Direct thermistor temperature options available

Benefits:

- High stability & reliability
- Long term stability
- 4-20mA, 0-5Vdc and 0-10Vdc outputs for compatibility with a wide range of controllers

The TH00105 range of humidity and temperature sensors offer the latest technology high precision and accuracy RH & T element, and installed in our robust 600 series housing. The housing has an added benefit of being easy to install with the hinged lid, which can also be screwed closed to make the unit tamperproof.

An optional multi-line backlit LCD display is available, along with a direct PTC/NTC sensing element. Also a custom output range for temperature can be requested, between -20°C and +50°C.

Specifications:

Outputs:
- Voltage 0-10Vdc or 0-5Vdc
- Current 4-20mA

Output ranges:
- RH 0 to 100%
- Temperature -20 to +50°C (standard)
  -TR in range of -20 to +50°C
- Enthalpy -20 to +250 kj/kg
- Dewpoint -50 to +50°C

Accuracy:
- RH-6xx-AH ±2% (20 to 80%RH)
- RH-6xx ±3% (20 to 80%RH)
- Temp. ±0.3°C (between +20 & 40°C)
- Long term stability <0.5% RH p.a.

Power Supply:
- Voltage 12-26Vac or 16-26Vdc @60mA max.
- Current 20-26Vdc only @70mA max.

Ambient:
- Temperature -10 to 50°C
- RH 0 to 95% RH, non-condensing

Housing:
- Material ABS (flame retardant)
- Dimensions 116 x 106 x 52mm

Probe:
- Material Probe, PVC - End cap, Delrin
- Dimensions;
- RH-622 210 x 19mm dia.
- RH-631 90 x 19mm dia.
- RH-632 200 x 118mm dia. (Shield)

Protection:
- RH622, RH632 IP65
- RH-631 IP54

Country of origin UK

Installation:

Antistatic precautions must be observed when handling these sensors. The PCB contains circuitry that can be damaged by static discharge.

1. Release the snap-fit lid by gently squeezing the locking tab.

2. Feed the cable through the waterproof gland and terminate the cores at the terminal block.
Leaving some slack inside the unit, tighten the cable gland onto the cable to ensure water tightness.

3. If the sensor is to be mounted outside, it is recommended that the unit be mounted with the cable entry at the bottom. If the cable is fed from above then into the cable gland at the bottom, it is recommended that a rain loop be placed in the cable before entry into the sensor.

4. Set jumper links according to output type required.

5. Snap shut the lid after the electrical connections have been made, it is possible to secure the lid with two screws to prevent unauthorised tampering.

6. Before powering the sensor, ensure that the supply voltage is within the specified tolerances.

Note: When using the sensor with a 4-20mA output, it is important to make all electrical connections before applying the supply voltage. If the sensor is not connected in this sequence, then you may see a higher reading than expected (can be as much as 55mA).

7. Allow 3 minutes before checking functionality, and at least 30 minutes before carrying out pre-commissioning checks. This will allow the electronics time to stabilise.

Warning:

Relative humidity transmitters are sensitive electronic devices and care should be taken at all times to ensure that they are not exposed to extreme ambient conditions or incorrect electrical connection. Transmitters should not be exposed to direct moisture contact (e.g. rain) and saturation of the transmitter at very high humidity should be avoided wherever possible.

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