I2C-M8-TRH320-P12

Product Description

I2C-M8-TRH320: Precision temperature and humidity probe with a M8 waterproof IP67 connector, a dual dust filter and I^2C protocol.

The I2C-M8-TRH320 is a specifically designed probe for temperature and humidity acquisition, in harsh and extreme humidity conditions. It is factory calibrated, linearized and temperature compensated. Thanks to its precision electronics, extremely small variations in temperature and humidity can be acquired. This makes the probe a convenient field interchangeable unit.

It is provided with a M8 waterproof IP67 standard connector for quick connection to our sensors that supports an external probe. The built-in particle filter provides protection against dust, soot and other contaminants. This product communicates using the standard I^2C protocol.

It is also possible to use this probe with a wide variety of **microcontrollers** and **single-board computers** such as the Raspberry pi, Arduino and similar products, that supports the I^2C communication protocol.

Specifications

Temperature

- Range: -40 to 70°C [1]
- Accuracy: ±0.3°C (-20 to 70°C), max ±0.4°C
- Resolution: 0.015°C (typical)
- Repeatability: 0.06°C (typical)

Humidity

- Range: 0 to 100 %RH
- Accuracy: (at 25°C)
  - Typical: ±2 %RH from 0 to 90 %RH
  - Max: ±2.5 %RH from 0 to 90 %RH
    ±4.5 %RH from 90 to 100 %RH
- Resolution: 0.01 %RH (typical)
- Repeatability: 0.1 %RH

Filter:

- Material: PTFE membrane
- Efficiency: >99.99% for particles ≥200 nm

Miscellaneous

- Supply voltage: 3.3 to 5.0 vdc
- Communication protocol: I^2C interface, up to 1 MHz
- I^2C Address: > 0x44
- Housing protection rating: IP64
- M8 protection rating: IP67
- Connector: M8 A-code male, 4-pin
- Weight: 10 g
- Diameter: 0.4″ (10 mm)