

DT043

Humidity and Temperature Probe

For fourtec - Fourier Technologies Data Loggers

The fourtec Humidity and Temperature Probe is designed according to ISO 9001 and meets EN61000-6-4 and EN61000-6-2 EMC requirements. The probe works perfectly for many years when you follow the operating guidelines.



The electronics of the probe is sensitive to electrostatic discharge (ESD) and wrong supply polarity. Make sure to be properly earthed when handling the probe. Improper handling and too high supply voltage as well as wrong connections (supply voltage on signal wires) may destroy the probe. This can be traced and will void warranty.

Probe Description

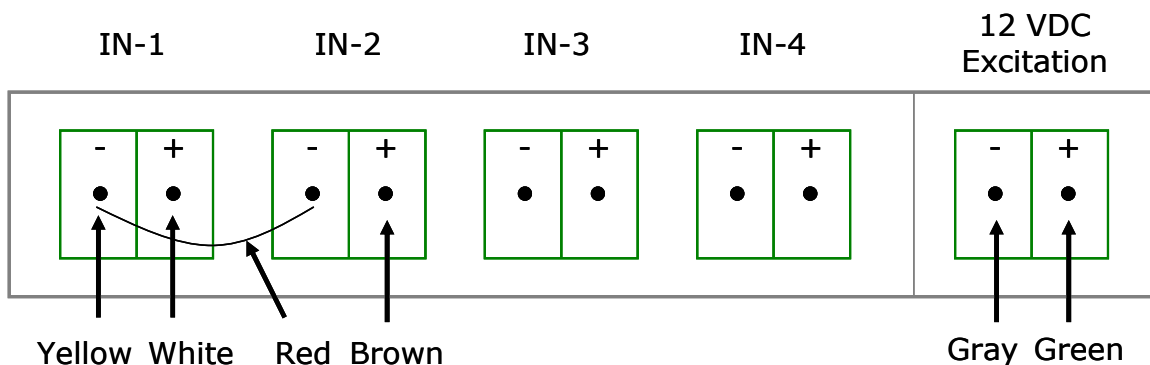
The DT043 sensor is a highly accurate humidity and temperature sensor. It measures relative humidity ranging from 0 to 100% with an error of not more than $\pm 1.5\%$ rH over the entire range. The DT043 includes, in its screw-on cap, a temperature sensing element that measures temperatures ranging from $-50\text{ }^{\circ}\text{C}$ to $100\text{ }^{\circ}\text{C}$.



The DT043 sensor is compatible with fourtec's industrial range of data loggers.

Connecting the DT043 Probe to fourtec Data Loggers

The DT043 probe must be connected to the fourtec data logger inputs according to the wire-up diagram below.





The probe must be defined in the fourtec software using the following output values:

0...1 V = 0...100% rH / -40...60 °C

Consult the relevant data logger user guide for instructions on defining these values in the software.

Calibration and Adjustment

The probe is factory-adjusted and comes with a calibration certificate. We recommend calibration after approximately one year, depending on use.

Specifications

Operating Range:	0...100% rH / -50...100 °C
Measurement Range:	0...100% rH / -50...100 °C
Outputs (factory default):	0...1 V = 0...100% rH / -40...60 °C
Start-up Time:	2 s
Measurement Interval:	1 s
Supply voltage & Load:	6...24 VDC / 5...16 VAC / >1 kOhm
Accuracy at 23 °C:	± 1.5% rH / ± 0.5 °C
Protection Rating:	IP65 (except sensor/filter area)

Wire Colors:

Green
Gray
White
Brown
Yellow
Shield

Term:

Power +VDC
GND (digital and power)
Analogue signal % rH / Humidity
Analogue signal °C / Temperature
AGND (analogue ground)
Not connected on probe side

Technical Support

The fourtec Help Desk can be contacted through the following channels 24 hours a day:

Via email:

support@fourtec.com

Via Web support form:

http://www.fouriersystems.com/support/contact_support.php

Via Telephone:

International +972-3-901-4849

Within USA only (toll-free) 1-888-778-4927