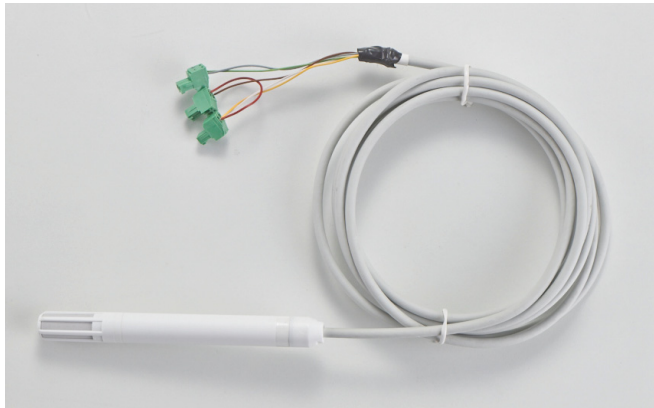# DT043:

Temperature and Humidity Probe

For Fourtec - Fourier Technologies Data Loggers

The Fourtec Temperature and Humidity Probe is designed according to ISO 9001:2008 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.

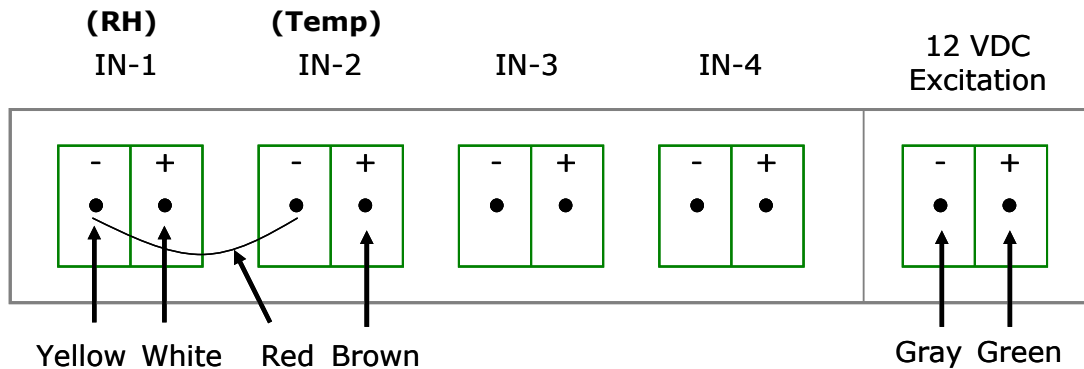## Probe Description

The DT043 is a highly accurate temperature and humidity probe. It measures relative humidity ranging from 0 to 100% with an error of not more than ± 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 ºC to 100 ºC.

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.

(RH) **(Temp)**
IN-1 IN-2 IN-3 IN-4 12 VDC Excitation

Yellow White Red Brown Gray Green

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

0…1 V = 0…100% rH (Input 1 on logger)

0…1 V = -40…60 °C (Input 2 on logger)

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:	**Term:**
Green	Power +VDC
Gray	GND (digital and power)
White	Analogue signal % rH / Humidity
Brown	Analogue signal °C / Temperature
Yellow	AGND (analogue ground)
Shield	Not connected on probe side

Technical Support

The Fourtec Help Desk can be contacted through the following channels:

- Via email: support@fourtec.com
- Via Web support form: www.fourtec.com/support
- Via Telephone:
  International +972-3-901-4849
  Within USA only (toll-free) 1-888-778-4927