C2i

DATASHEET

TMP-SHT

Combined Humidity/Temp Sensor

Combined Temperature and Humidity Sensor

A unique capacitive sensor element is used for measuring relative humidity while temperature is measured by a band-gap sensor. The applied CMOSens® technology guarantees excellent reliability and long term stability. The sensor is seamlessly coupled to a 14-bit analog-to-digital converter and a serial interface circuit. This results in superior signal quality, a fast response time and insensitivity to external disturbances (EMC). Each sensor is individually calibrated in a precision humidity chamber. The calibration coefficients are programmed into an OTP memory on the chip. These coefficients are used to internally calibrate the signals from the sensors.

SPECIFICATION

Accuracy, Temp	± 0.3°C
Accuracy, Humidity	± 1.8%RH
Supply Current, Measuring	0.55mA (typical), 1mA (max)
Supply Current, Average	28µA (typical)
Operating Temperature	-40 to 123.8°C
Body Material	ABS
Dimensions (mm HxWxD)	40.00 x 65.46 x 60.46
IP Rating	65

For connection to C2i EnCompass

Connection Details

Ethernet TCP/IP 8 Pin RJ45 Cat5e/Cat6

(White/Orange) Pin 1:	Thermistor (T5+)
(Orange) Pin 2:	Thermistor (T5-)
(White/Blue) Pin 3:	1. (SCK)
(Blue) Pin 4:	2. (VDD)
(Green) Pin 5:	3. (GND)
(White/Green) Pin 6:	4. (DATA)
(White/Brown) Pin 7:	Not Used
(Brown) Pin 8:	Not Used