



## Temperature and humidity sensor TSH202



### Short description

**TSH202** is 1-wire, low cost option for humidity and temperature monitoring. It is successor of TSH200. The device integrates basic elements plus signals processing and provide a fully calibrated digital output. A unique capacitive element is used for measuring relative humidity while temperature is measured by a band gap sensor. Both sensors are seamlessly coupled to a 12 bit analog to digital converter. This results in superior signal quality and fast response time.

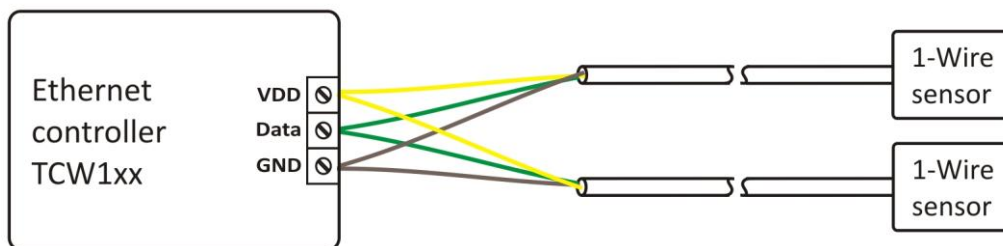
### Technical parameters

Parameter	Value	Units	Remark	Value	Units	Remark
Operating Range	0 to 100	%RH		-40 to 85	°C	
Tolerance typical	±3.0	%RH	20 to 80 %RH	±0.4	°C	at 25°C
Tolerance maximal	±5.0	%RH	0 to 100 %RH	±2.2	°C	-40 to 85°C
Resolution	0.05	%RH		0.01	°C	
Long-term drift	< 0.5	%RH/yr		< 0.04	°C/yr	
Head's dimensions	45 x 16 x 10 mm					
Communication	1-Wire					
Cable/length	LIYY/1 meter					

### Pinout

Signals	Cable colors
VDD (+3 to +5.5V)	Yellow
Data	Green
GND (Ground)	Brown

## Wiring example of two sensors



### 1-Wire Bus

1-Wire is a registered trademark of Maxim Integrated Products, Inc. It is designed to connect several sensors over a short wiring. The bus carries power and a single data wire. It is not suitable for long distances or environments with EMC interference. We strongly recommend read Maxim's 1-Wire tips at <http://www.maxim-ic.com/app-notes/index.mvp/id/148>.

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