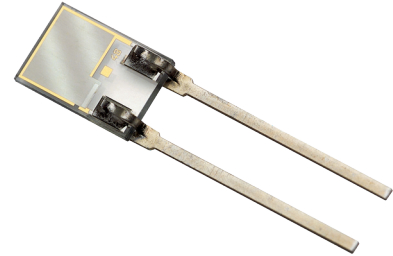


HC201

Humidity Sensors for HVAC Applications

HC201 is the ideal solution for large-volume cost-effective applications in indoor climate control. In the measuring range of 20...90 %RH, a linear approximation is possible, resulting in an accuracy of better than ± 2 %RH. An additional plastic housing allows easy manual mounting on PCBs.



Typical Applications

HVAC
Handhelds
Humidifiers
Dehumidifiers

Features

High repeatability
High sensitivity
Wettable
Very good long term stability
Good resistance to pollutants
Small size construction

Technical Data

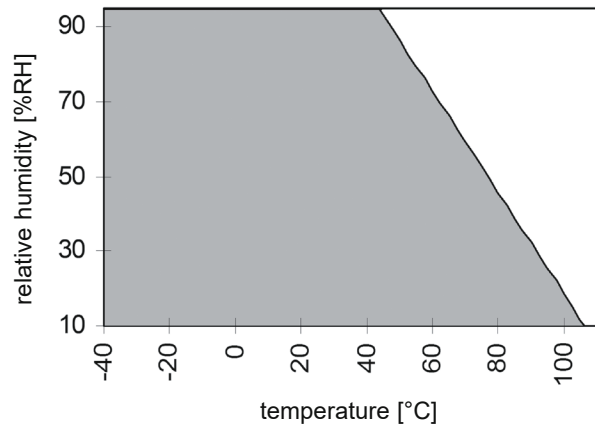
Working range	Humidity	10...95 %RH
	Temperature	-40...110 °C (-40...230 °F)
Nominal capacitance C_0 @ 20 °C / 68 °F		200 \pm 30 pF
Linearity error (20...90 %RH)		< ± 2 %RH
Response time t_{90}		< 15 s
Sensitivity		0.6 pF / %RH
Temperature dependency [%RH / °C]		$\Delta RH = g * RH * (T - 20)$ $g = -0.004 \pm 10 \%$
Hysteresis		2.0 \pm 0.3 %RH
Long-term stability @ 20...30 °C (68...86 °F) / 20...80 %RH		Drift < 1.5 % / year
Maximum supply voltage		5 V (V_{PP})
Maximum DC voltage		< 5 mV
Loss tangent		< 0.1 typical
Operating frequency		10...100 kHz, recommended 20 kHz
Material connection		Phosphor bronze with tin coating

Working Range

The working range for the humidity sensor HC201 is shown with regard to the humidity / temperature limits.

Although the sensors would not fail beyond the limits, the specification is guaranteed only within the working range.

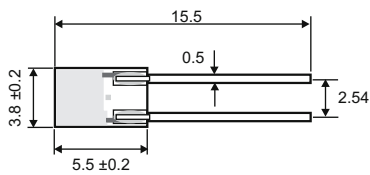
In applications with high humidity at high temperature the time factor shall be considered.



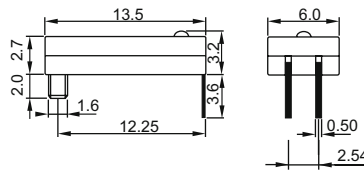
Dimensions

Values in mm

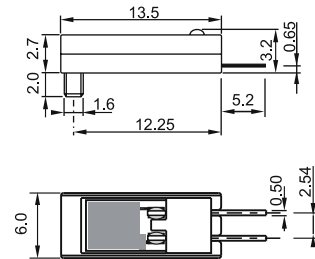
1 mm = 0.03937" / 1" = 25.4 mm



HC201



HC201/H



HC201/G

Ordering Guide

		HC201
Type	Capacitive humidity sensor 200 pF, T&R	no code
	Capacitive humidity sensor 200 pF with PC housing for mounting on the printed circuit board, in tube (80 pcs packing unit)	/H
	Capacitive humidity sensor 200 pF with PC housing, T&R	/G

Order Example

HC201/H

Type: Capacitive humidity sensor 200 pF with PC housing for mounting on the printed circuit board, in tube (80 pcs packing unit)