

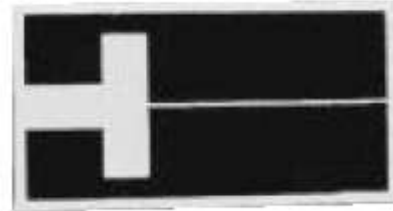
General Description

Small device consisting of a ceramic substrate covered with humidity sensing layer and gold metallization.

Fast humidity measurements are possible for many custom applications. The measurement error is very low if compared with resistive type sensors.

The device can be sold as humidity sensor without the package.

Custom solution for the assembly can be considered on specific request.



Applications

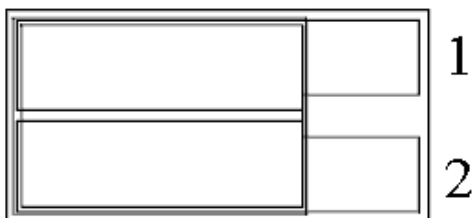
- Humidity Measurement Instruments
- Air Conditioning and Heating Systems
- Electric Household Appliances

Features

- Extended Range = 0.5-99% R.H.
- Very Small Dimensions (L=8 mm, W=4 mm)
- Custom Package on Request

Pin Functions

No.	Name	Function
1	A	Electrode
2	B	Electrode



Ordering Information

OIH10S01	Capacitive Humidity Sensor with Ceramic Substrate
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OIH10S01

ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Min	Max	Unit
T _A	Operating Temperature Range	-30	120	°C
T _S	Storage Temperature	-30	120	°C
T _{Sol}	Lead Temperature (solder) 3s		230	°C
Δf	Operating Frequency Range	1	1000	kHz
P _D	Power Dissipation @ T _A =25°C		100	mW

Stresses beyond those listed under "Absolute Maximum Ratings" may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated in the operational sections of the specifications is not implied. Exposure to absolute maximum rated conditions for extended periods may affect device reliability.

CHARACTERISTICS

T_A = 25°C unless otherwise noted.

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
	Humidity Detection Range		1		99	% R.H.
	Sensitivity		0.25		0.35	pF/ %R.H.
	Measurement Error				1.5	% R.H.
	Maximum Voltage				5	V
	Response Time				1	s
	Hysteresis				1	% R.H.
	Initial Capacitance	30% R.H.	120	150	180	pF
	Sensor Drift after 12 months	95% R.H.			2	% R.H.

MECHANICAL DIMENSIONS

Units=mm Mechanical tolerance=+/-0.2mm

