

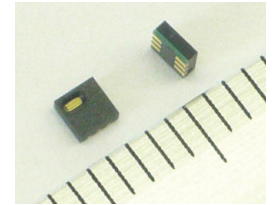


Humidity (Capacitive Type)·Temperature Sensor

Model No. HSU-CHM-01A

Humidity sensor which uses newly-developed humidity-sensitive film combined with dedicated IC realized high precision and high reliability.

Small size package dimension 2.0×2.0×0.75 mm (World smallest class size)

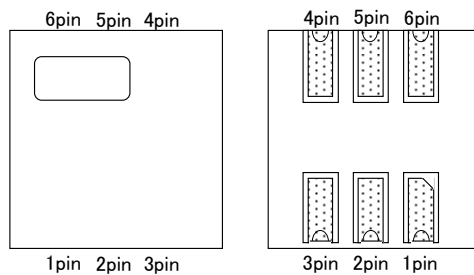
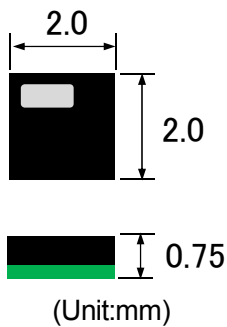


QFN Package
2.0×2.0×0.75 mm

■ Features

- Small size, low profile package dimension 2.0×2.0×0.75 mm
- Low voltage operation (1.71~5.5V)
- High sensitivity
- Low current consumption
- Anti-dew condensation, Water-proof
- Interface : I²C communication
- Lead-free reflow and RoHS Directive-compliant

■ Outline & Dimensions



No.	Terminal	Function
1	CE	Chip enable terminal
2	V _{ss}	Power supply terminal (-)
3	V _{cc}	Power supply terminal (+)
4	NC	No connection
5	SDA	Data input/output terminal for I ² C-BUS.
6	SCL	

■ Specifications

1. Maximum Absolute Ratings

Item	Rating	Unit	Remark
Storage Temperature Range	-50~125	°C	
Operating Voltage	-0.3~7.0	V	

2. Ratings

Item	Rating	Unit	Remark	
Operating Voltage	1.71~5.5	V		
Current Consumption	10	μA	Average current at 1 measurement / sec (*1)	
Humidity	Operating Range	0~100	%RH	
	Resolution	0.1	%RH	10bit Data
	Accuracy	±3	%RH	25°C/20~80%RH
Temperature	Operating Range	-30~100	°C	
	Resolution	0.1	°C	11bit Data
	Accuracy	±0.4	°C	5~60°C

(*1) Under control by CE (chip enable) pin

Model No. HSU-CHU-15B

Humidity sensor which uses newly-developed humidity-sensitive film combined with dedicated IC realized high precision and high reliability.

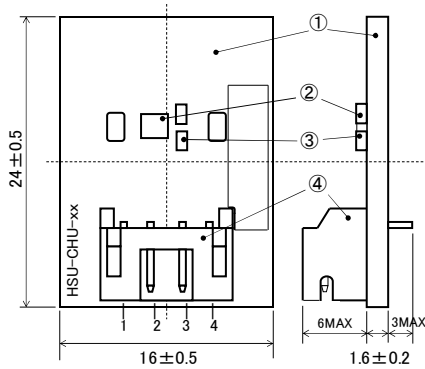
This is an unit type of connector lead-out.



■ Features

- Wide range of operating voltage.(1.62~5.5V)
- Low current consumption
- High sensitivity
- RoHS Directive-compliant
- Interface : I²C communication

■ Outline & Dimensions

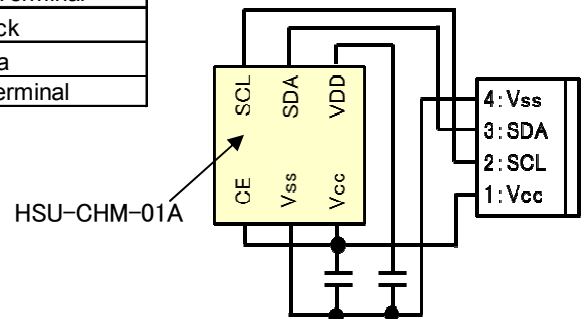


(Unit : mm)

No.	Name	Specification
①	Printed Circuit Board	CEM-3, t=1.6mm
②	Humidity Sensor	Capacitive humidity sensor Model No. HSU-CHM-01A
③	Surface Mounted Parts	—
④	Connector	S4B-PH-K-S (Manufactured by JST, 2mmpitch)

No.	Symbol	Name
1	Vcc	Power Terminal
2	SCL	I ² C Clock
3	SDA	I ² C Data
4	GND	GND Terminal

[Circuit Configuration]



■ Specifications

1. Maximum Absolute Ratings

Item	Rating	Unit	Remark
Storage Temperature Range	-25~85	°C	
Operating Voltage	-0.3~7.0	V	

2. Ratings

Item	Rating	Unit	Remark	
Operating Voltage	1.62~5.5	V		
Current Consumption	300	μA		
Humidity	Operating Range	0~100	%RH	
	Resolution	0.1	%RH	10bit Data
	Accuracy	±3	%RH	25°C/20~80%RH
Temperature	Operating Range	-20~85	°C	
	Resolution	0.1	°C	11bit Data
	Accuracy	±1.0	°C	5~60°C