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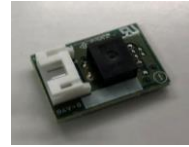


Capacitive humidity sensor

High reliability

Fastest in the world

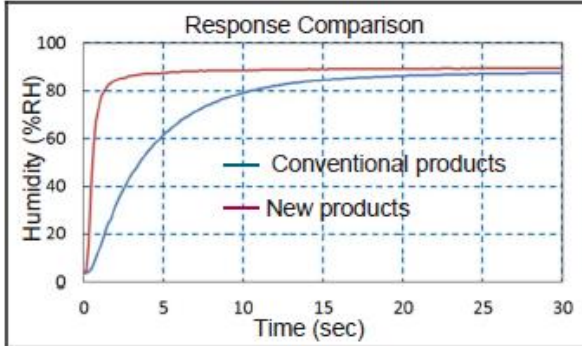
Model No. HSU-CHU-42A-HC



Features

- High long-term reliability
- Achieves ultra-fast response ($1 \tau : 1s$)
- Supports a wide range of driving voltages (1.62 to 5.5V)

Utilizing high-speed response, it is ideal for use in the fields shown below.



Classification	Application
General consumer products such as air conditioners and refrigerators	Energy saving measures
Medical equipment	CPAP device (continuous positive airway pressure) Ventilator
In-vehicle	Fogging detection Energy saving measures

Specifications

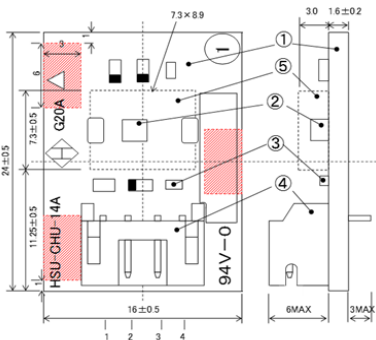
1) Absolute Maximum Ratings

Item	Specification	Unit	Remarks
Storage temperature range	-25~85	°C	
Drive voltage	-0.3~7.0	V	

2) Electrical Characteristics

Item	Specification	Unit	Remarks	
Drive voltage	1.62~5.5	V		
Current consumption	300	μA		
Humidity	Operating range	0~100	%RH	
	Output form	Digital output	I2C communication	
	Resolution	0.1	%RH	10bit data
	Humidity accuracy	±3	%RH	25°C/20~80%RH
	±5	%RH	5~45°C/0~100%RH	
Temperature	Operating range	-20~85	°C	
	Output form	Digital output	I2C communication	
	Resolution	0.1	°C	11bit data
	Temperature accuracy	±0.4	°C	5~60°C

3) Dimensions



Parts No.	Name	Specification
①	Printed Circuit	CEM-3 / 1.6±0.2mmt
②	Humidity & Temperature Sensor	Capacitive Type Humidity Sensor (HSU-CHM-04A)
③	Mounted Parts	Chip Capacitor / Chip Resistor / Diode
④	Connector	S4B-PH-K-S, Manufactured by JST, 2mm pitch
⑤	Cover case	PBT
-	Humi Seal	AR BROWN 1B51NS or 1B51NSLU

Area without pattern (Silk notation is possible)

No.	Symbol	Name
1	Vcc	Power Terminal
2	SCL	I2C Clock
3	SDA	I2C Data
4	Vss	Ground Terminal

< Circuit Diagram >

