

MEAS HTU31D/V SENSOR FOR GROVE SYSTEM

Digital/Analog Humidity and Temperature Sensor

Description

The HTU31D/V development board provides the necessary hardware to interface the HTU31D/V relative humidity and temperature sensor to any system using Grove compatible expansion ports configurable for I²C communication.

- Digital/Analog Component Sensor Product Type: **Grove System**
- Digital/Analog Component Sensor Type: **Relative Humidity, Temperature**

Performance

- 0% to 100% relative humidity range
- -40°C to 125°C temperature range
- Low power consumption
- Operates at 5V
- Fast response time
- Fast conversion time

Detailed Description

External Control Signals 5V supply: The IC operates as an I²C slave using the standard 2-wire I²C connection scheme. As IC is power rated at 3.6V, the board integrates necessary fixture such as a regulator and electrical level shift so that the SCL and SDA signals could be driven directly from an external 5V I²C lines and power supply.

Digital version - I²C Interface: The HTU31D Grove compliant module can interface to the host in I²C model with 5V supply, it has a Grove compatible four pins port connector configured for I²C. The IC operates as an I²C slave using the standard 2-wire I²C connection scheme.

Analog version - Ratio metric voltage output: The HTU31V Grove compliant module can interface to the host with 5V supply, it has a Grove compatible four pins port connector configured.

Benefits

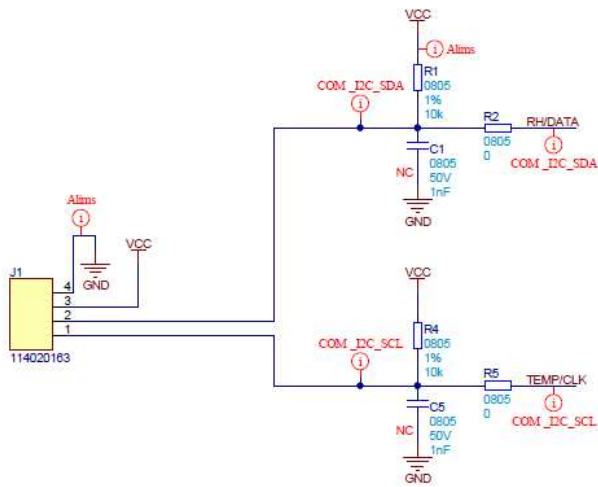
- 4-pin Grove compatible connector
- I²C interface / Voltage signal
- Selectable resolution for humidity and temperature
- Parameters stored on chip

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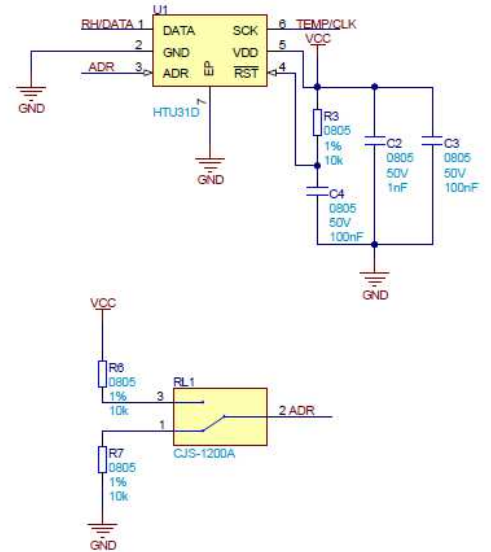
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Schematics



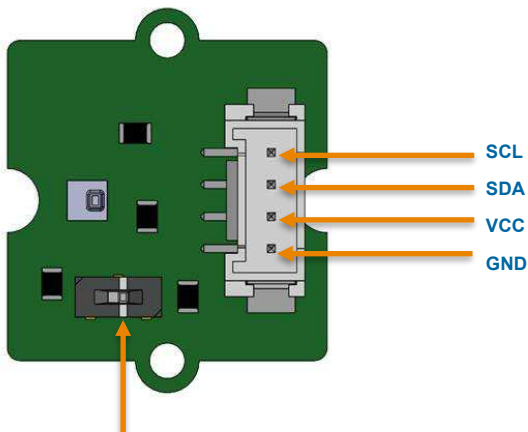
For Analog Version:
 R2, R5 = 10k
 C1, C5 to be connected
 R1, R4 = NC
 U1 => HTU31V



Connector Pin Assignments

HTU31D

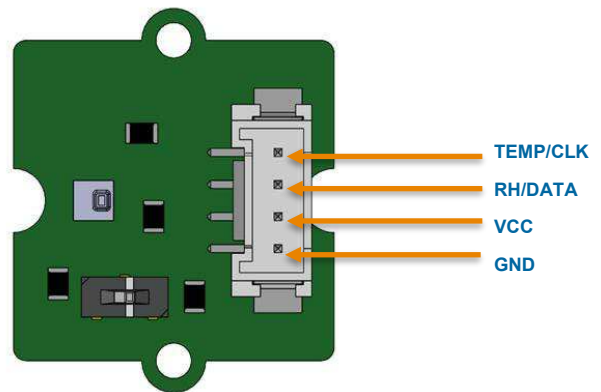
Part number: 10142605-10 - I²C Communications



I²C default address: 0x41
 Switch to GND to get 0x40

HTU31V

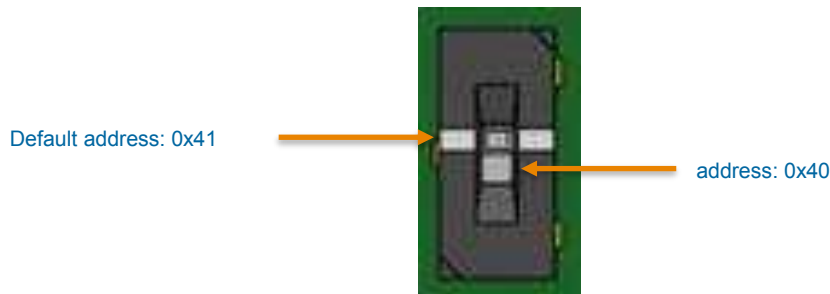
Part number: 10142605-02 - Voltage output



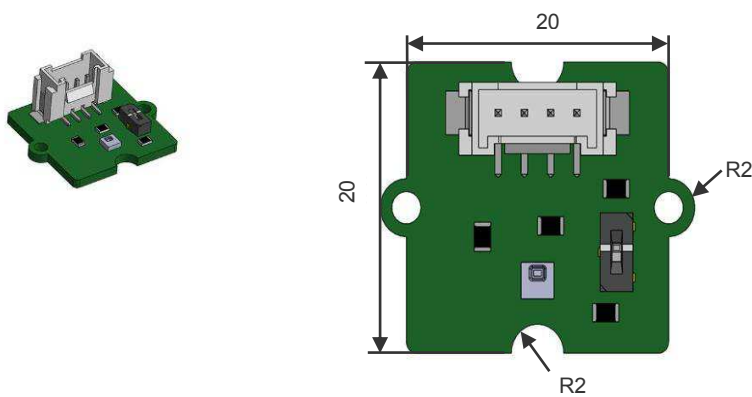
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I²C address, switch position:



Dimensions (mm)



Ordering Information

Description	Part Number
HTU31D – Sensor for grove system	10142605-10
HTU31V – Sensor for grove system	10142605-02
Product Families	MEAS

Application Notes

[HTU31 datasheet](#)

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