



# s-Sense by itbrainpower.net

What's the human mind without senses? Similar, what's the IoT without sensors support? Air quality sensor? Environmental sensor? CO2? tVoC? bVoC? temperature? humidity? pressure?

This why we designed our sensor series gathered under s-Sense name, all sharing the very same form factor [13 x 27mm] and the same interfaces. We proudly present to you 6 environmental and air quality sensors (CCS811 + HDC2010, CCS811, BME680, HDC2010, BME280 and BMP 280) having I2C interface.

**s-Sense sensor breakout v1.02** common features:

- compatible with Arduino [all 3.3V and 5V], xyz-mIoT shields, Raspberry Pi [all versions] and other SBC / MCU Arduino [Beagle Bone, Teensy, ...]
- power in with voltages between 3.3-5V [default],
- I2C interface, 3.3-5V auto [default, the I2C reference voltage follows the power in voltage],
- I2C reference voltage option via solder jumper [Eg.: power at 5V and I2C at 3.3V; power and I2C at 2.2V],
- alternative sensor I2C addresses via solder jumpers,
- big soldering pads on 2.54 mm [0.1"] pitch for standard row header / connector,
- very light and slim - 13x27mm, around 2grams.

Arduino C, Raspberry Pi [Python] software support.

*Designed and manufactured in EU by R&D Software Solutions.*

<https://itbrainpower.net/sensors/>

## CCS811\* + HDC2010\* breakout

carbon dioxide, total Volatile Organic Compounds, temperature and humidity - air quality sensor

PN: SS-HDC2010+CCS811#I2C SKU: ITBP-6006  
<https://itbrainpower.net/sensors/HDC2010+CCS811>

## BME680\* breakout

gas, humidity, pressure and temperature - air quality sensor

PN: SS-BME680#I2C SKU: ITBP-6003  
<https://itbrainpower.net/sensors/BME680>

## CCS811\* breakout

carbon dioxide and total Volatile Organic Compounds - air quality sensor

PN: SS-CCS811#I2C SKU: ITBP-6004  
<https://itbrainpower.net/sensors/CCS811>

## BME280\* breakout

temperature, humidity and pressure - environmental sensor

PN: SS-BME280#I2C SKU: ITBP-6002  
<https://itbrainpower.net/sensors/BME280>

## HDC2010\* breakout

high accuracy temperature and humidity - environmental sensor

PN: SS-HDC2010#I2C SKU: ITBP-6004  
<https://itbrainpower.net/sensors/HDC2010>

## BMP280\* breakout

temperature and pressure - environmental sensor

PN: SS-BMP280#I2C SKU: ITBP-6001  
<https://itbrainpower.net/sensors/BMP280>

\* digital sensors provided by AMS (CCS811), Bosch Sensortec (BME680, BME280 and BMP280) and Texas Instruments (HDC2010)