

# TVOC/eCO2

SKU:U088



## Description

**TVOC/eCO2 mini Unit** is a digital multi-pixel gas sensor unit with integrated SGP30.

It mainly measures various VOC (volatile organic compounds) and H2 in the air. It can be programmed to detect TVOC (total volatile organic compounds) and eCO2 (equivalent carbon dioxide reading)Concentration measurement.

Typical measurement accuracy is 15% within the measurement range, the SGP30 reading is internally calibrated and output, which can maintain long-term stability. SGP30 uses I2C protocol communication with on-chip humidity compensation function, which can be turned on through an external humidity sensor.

If you need to obtain accurate results, you need to calibrate according to a known measurement source. SGP30 has a built-in calibration function. In addition, eCO2 is calculated based on the concentration of H2 and cannot completely replace "true" CO2 sensors for laboratory use.

## Product Features

- TVOC/eCO2 concentration detection
- I2C communication(0x58)
- Outstanding long-term stability
- Humidity Compensation
- 2x LEGO™ Hole
- HY2.0 4P interface

## Include

- 1x TVOC/eCO2 Mini Unit
- 1x HY2.0 Cable(5CM)

## Applications

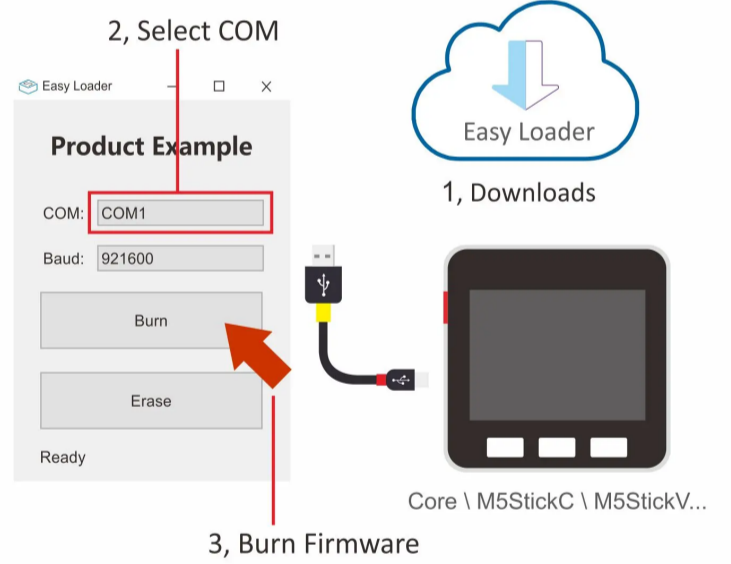
- Air quality monitoring
- eCO2 concentration

# Specification

Specification	Parameter
Measurement range	Ethanol: 0-1000ppm,H2: 0-1000ppm,TVOC: 0-60000 ppb,eCO2: 400-60000 ppm
TVOC/eCO2 Sampling rate	1Hz
TVOC/eCO2 Resolution	TVOC: 1/6/32bbp,eCO2: 1/3/9/31ppm
Communication protocol	I2C: 0x58
Net Weight	4g
Gross Weight	8g
Product Size	24*24*13mm
Package Size	35*36*18mm
Case material	Plastic(PC)

# EasyLoader

EasyLoader is a concise and fast program writer, which has a built-in case program related to the product. It can be burned to the main control by simple steps to perform a series of function verification. Please install the corresponding driver according to the device type. M5Core host [Please click here to view the CP210X driver installation tutorial](#), M5StickC/V/T/ATOM series can be used without driver)



Windows

MacOS

## PinMap

M5Core(GROVE A)	GPIO22	GPIO21	5V	GND
TVOC Unit	SCL	SDA	5V	GND

# Related Link

- SGP30 Datasheet

# Schematic

