

## Colswe-VOC-V2

Art. No. 13010

**Colswe-VOC-V2** measures the quantity of volatile organic compounds (VOCs) in ambient air. Measurements can be read directly via an USB connection or they can be stored in its internal flash memory for later retrieval via the USB connection.

**Colswe-VOC-V2** is ideal to monitor the air quality in residential, commercial and industrial spaces. The MEMS metal oxide sensor used in this device measures the variation of total volatile organic compounds in ambient air. The measurements are used to estimate the concentration in ppm CO<sub>2</sub> equivalents (relative). **Colswe-VOC-V2** detects alcohols, aldehydes, aliphatic hydro-carbons, amines, aromatic hydro-carbons (petrol vapors, etc.), carbon oxides, CH<sub>4</sub>, LPG, ketones and organic acids. Be aware that the first estimation is only available 5-6 minutes after powering on **Colswe-VOC-V2**.

The initial estimated value measured by **Colswe-VOC-V2** is 450 ppm CO<sub>2</sub> equivalents (theoretical value for fresh air). The sensor measures relative variations of volatile organic compounds to provide an estimated ppm value, with an automatic baseline correction. The absolute value must therefore be interpreted with great care, as it is subject to drift. It is not comparable with the absolute value measured by a **Colswe-CO<sub>2</sub>** but it has the advantage of including a broader range of volatile organic compounds than a simple CO<sub>2</sub> sensor.

The sensor part can be split from the main USB board and moved several meters away using ribbon cable, soldered on the designed contact pads. This may be useful to move the sensor close by to HVAC ducts.

**Package:**      Sensor: VOC-V2 (Art. No. 23010).  
                    Enclosure: Box-Long-Thin-Black-Vents (Art. No. 25010).  
                    Cable to choose between:  
                        USB-A-MicroB-180, length 180 cm, right angle (Art. No. 36010)  
                        USB-A-MicroB-180, length 180 cm, left angle (Art. No. 36020)  
                        USB-A-MicroB-180, length 180 cm, straight (Art. No. 36030)  
                    Power Supply: 3 ports - USB-A white, 100-240V to 5V USB, 2,4A, 12W

**Colswe-VOC-V2** can be connected directly to:

- WiFi network with Colswe-Hub-Wireless-SR (Art. No. 27000)
- GSM network with a Colswe-Hub-GSM (Art. No. 27010)
- Ethernet network with a Colswe-Hub-Ethernet (Art. No. 27020)

Refer to the respective Hub article number

**Downloads in [www.colswe.com](http://www.colswe.com):**

- Colswe-VOC-V2 User Manual.pdf
- VirtualHub.Zip

## Technical Specification

Module name:	Colswe-VOC-V2
Article No.:	13010
Sensor name:	Yocto-VOC-V2 (Made in Switzerland)
Sensor	iAQ-core C (MEMS sensor)
USB connector:	micro-B
Refresh rate:	1 Hz
Measuring range:	450..65000 ppm equiv.
Accuracy:	n/a (relative estimate)
Normal operating temperature:	5...40 °C
Extended operating temperature:	0...50 °C
Max temperature:	50 °C
Min temperature:	0 °C
Supported Operating Systems:	Windows, Linux (Intel + ARM), Mac OS X, Android
Drivers:	no driver needed
API / SDK / Libraries (USB+TCP):	C++, Objective-C, C#, VB .NET, Delphi, Python, Java/Android
API / SDK / Libraries (TCP only):	Javascript, Node.js, PHP, Java
RoHS:	yes
Enclosure:	YoctoBox-Long-Thin-Transp-Vents
USB cables:	
USB cable left:	USB-A to left angle USB micro-B, 180 cm
Art. No.:	36010
USB cable right	USB-A to right angle USB micro-B, 180 cm
Art. No.:	36020
USB cable straight	USB-A to straight USB micro-B, 200 cm
Art. No.:	36030
Power supply:	3 ports USB-A, 100-240 V to 5 V USB, 2,4 A, 12 W
Art. No.:	59010
Thickness:	12,7 mm
Width:	25,5 mm
Length:	63,3 mm
Weight:	8.6 g

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