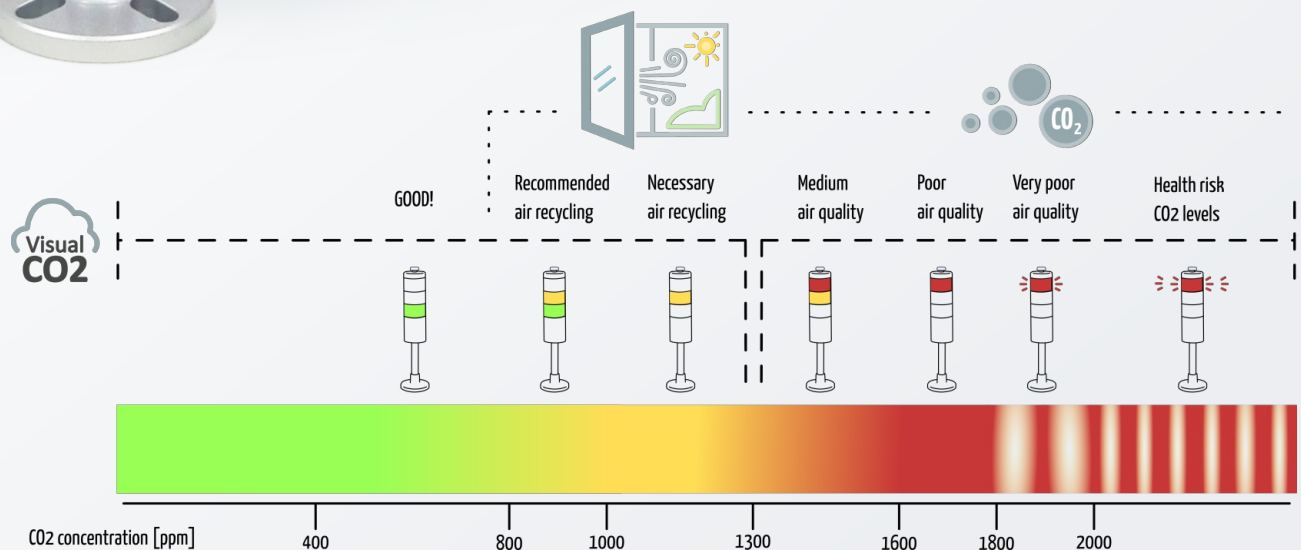# Visual SENSING

Visual CO2

CO2

CO2 concentration is the best indicator to know when it is advisable to ventilate a room, and thus reduce the risk of spreading COVID and other aerosol transmitted diseases. The indoor air quality also influences occupants cognitive functions and consequently their learning and work performance.

Nihon Kasetsu's Visual Sensing

Visual CO2 is a signaling device for the level of CO2 concentration in the air, using three light indicators. It also has temperature and humidity measurement that can be viewed through a mobile application.

The design of the device generates a flow of air throughout the interior of the beacon due to natural convection. The ambient air is captured through three holes located in the lower part, and circulates all the way across the interior until it exits through a regulating valve located in the upper part.

Inside the base is the CO2 sensor that, using NDIR infrared absorption technology, allows the concentration in parts per million to be measured very precisely according to the amount of infrared light absorbed by the CO2 particles present in the air.

Ensuring an optimal level of CO2 in a room serves not only to reduce the risk of spreading disease, but also to improve comfort and productivity.

Visual **CO2**

GOOD!	Recommended air recycling	Necessary air recycling	Medium air quality	Poor air quality	Very poor air quality	Health risk CO2 levels

CO2 concentration [ppm]

400	800	1000	1300	1600	1800	2000

Technical specifications

Visual CO2

CONNECTION		
Power	1,75	W
Voltage	24	VDC*
Range	± 10 %	
Current	70	mA
*100-240 VAC adapter included		

MOUNTING		
Ambient	Indoor	
Position	Vertical	
Protection Index	IP23	
Size	385 x Ø94	mm
Weight	0,6	Kg

OPERATION RANGES		
Temperature	0 ÷ 50	ºC
Humidity	0 ÷ 90	% RH

CO2 SENSOR SPECIFICATIONS	CONDITION	VALUE
Range	-	0 - 10.000 ppm
Accuracy	400 - 10.000 ppm	± (30 ppm + 3% MV)
Repeatability	400 - 10.000 ppm	± 10 ppm
Themal stability	T= 0 - 50 ºC	± 2,5 ppm / ºC
Response Time	τ63 %	20 s

TEMPERATURE SENSOR SPECIFICATIONS	CONDITION	VALUE
Range	-	-40 ºC - 70 ºC
Accuracy	0 - 50 ºC	± (1 ºC + 0,023 x(T[ºC] -25ºC))
Repeatability	-	± 1 ºC

HUMIDITY SENSOR SPECIFICATIONS	CONDITION	VALUE
Range	-	0 - 100 % RH
Accuracy	25 ºC , 0 - 100 % RH	± 7,5 % RH
Repeatability	-	± 0,1 % RH

Apps for mobile devices

Visual APP

Collect recorded values from Visual devices in a near area

The Visual APP shows collected data in a graphic mode and allows to export the data via email (csv) for further analysis.

Visual DISPLAY

Quick set-up to show the real time value of a selected device in a wide-screen view

Visual Display is a simple interface straightforward to show the instantaneous value to any user present in the area.

453 ppm

* Both Apps can be used simultaneously with the same device, or with a group of devices.

Available on iOS and Android.

Visual SENSING

Understand the environment making measuring easy