

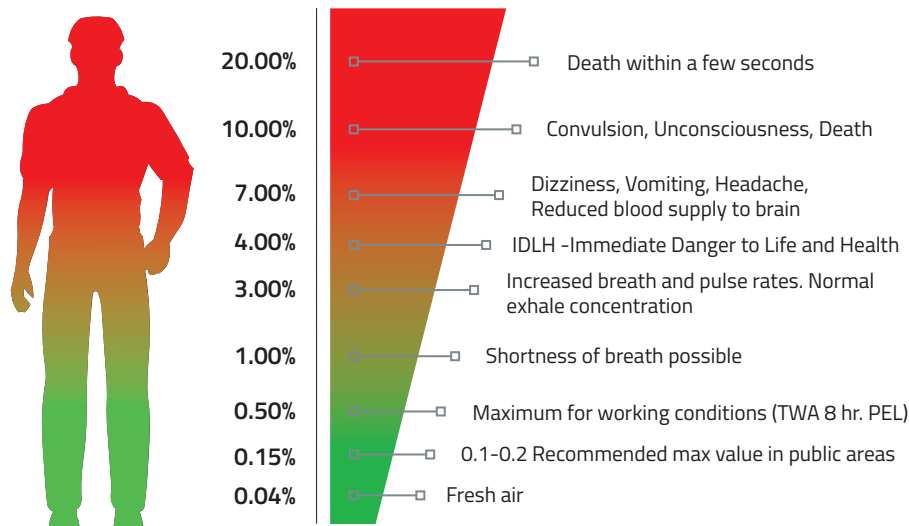
# CO2 Safety Program



# Why detect CO2?

## Health dangers

CO2 has a significant effect on the function of the human body. Carbon Dioxide in its gas form is an asphyxiant as well as being colorless and odorless. Therefore it's imperative that we detect possible CO2 leaks early, before putting employees and/or customers at risk.



## Loss of uptime and revenue

In addition to the health risks involved with CO2 leaks, the situation often inhibits revenue due to costly, unscheduled CO2 refillings and loss of revenue. With easy installation, perfect functionality and extremely low maintenance, the LogiCO2 System delivers an easy way of minimizing any CO2 risks for the working staff and customers 24/7.

## Regulations of CO2 in Europe

The European Council Directive 98/24/EC of 7 April 1998, Article 7, Section 4:

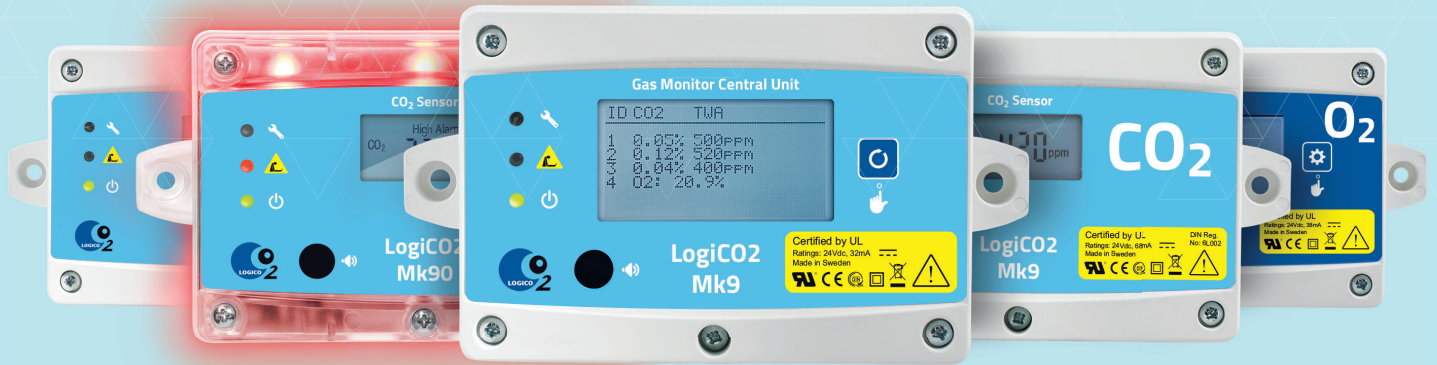
-“the employer shall take the measures necessary to provide the warning and other communication systems required to signal an increased risk to safety and health, to enable an appropriate response and to launch remedial actions, assistance, escape and rescue operations immediately if the need arises.”

The European COMMISSION DIRECTIVE 2006/15/EC:

This regulation establishes a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC. The directive clearly states the TWA limit at 5000 ppm in the appendix that must not be exceeded.



# The next evolution



LogiCO2 Safety Systems have just gotten even better!

LogiCO2 offers unprecedented CO2 Safety Systems for Staff and Customers, at the same time minimizing the risk of running out of CO2.

It's the most economical system on the market to purchase and own and is extremely easy to install.

**The most endorsed CO2 Safety System in the World.**  
**Installed in more than 126 countries worldwide.**

CO2 Safety made economical and simple.  
There are no more excuses!

A short summary of the systems features:



## Easily expandable

Up to 8 sensors can easily be connected to the same Central Unit



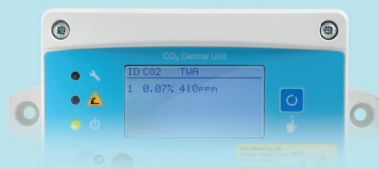
## Cost effective

The System is delivered pre-connected, minimizing installation time and testing



## Self Calibrating

No complicated system calibration is needed under normal conditions



## Multilingual

The Central Unit supports a large number of languages, and more are on the way



## Certified Installers

LogiCO2 has globally certified installation partners to maximize CO2 Safety for you



## Digital Communication

All communication is digital and managed through Cat-5 cables



# A simple solution to a complicated problem



## Introducing Mk90 Stand-Alone CO2 Alarm System

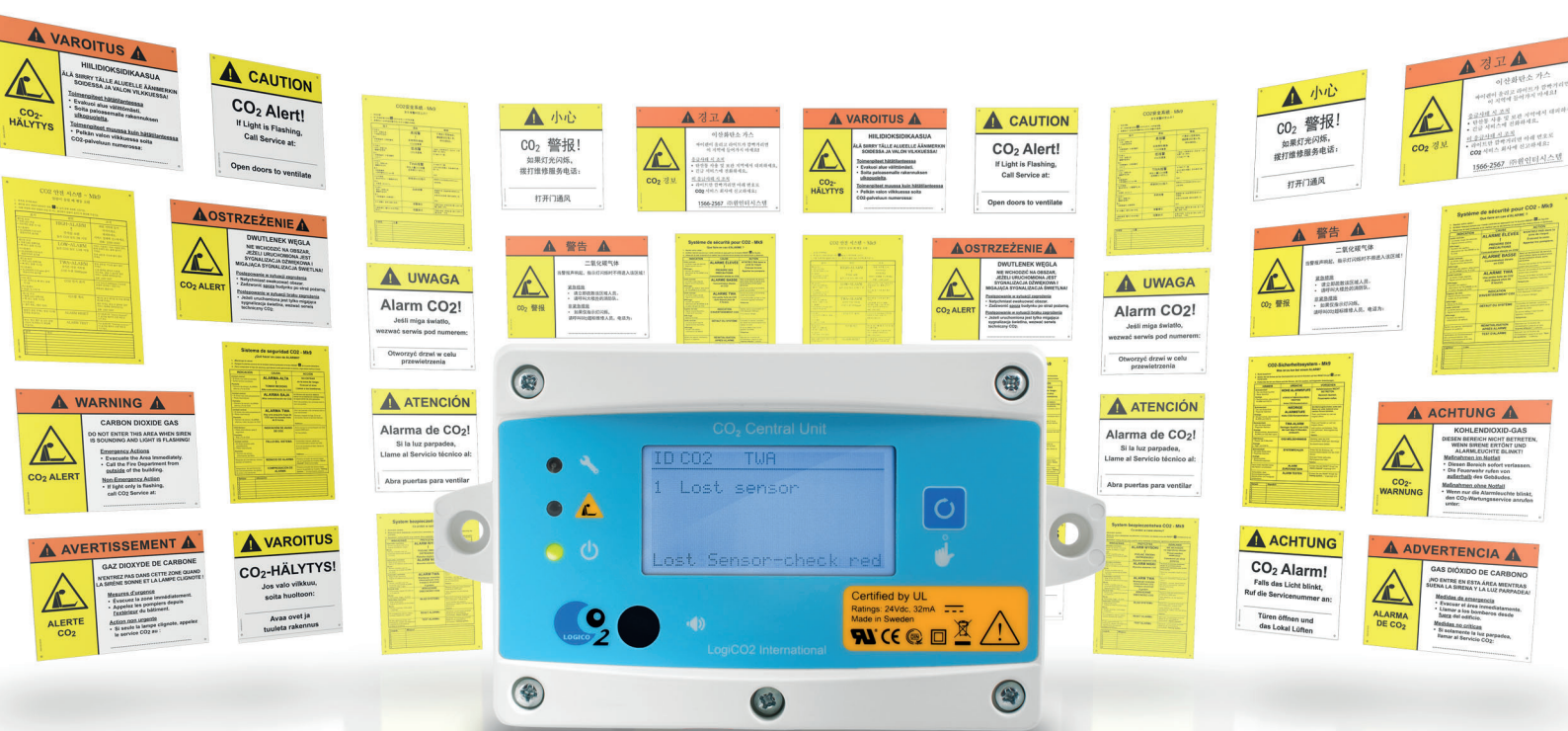
The LogiCO2 Mk90 is the easiest and most cost effective way to detect and alert of DANGEROUS CO2 leakages. It also inhibits lost revenue due to costly CO2 leaks. With easy installation, virtually zero maintenance and perfect functionality, the LogiCO2 Mk90 is the logical way of minimizing any CO2 risks for the working staff and customers 24/7!

The LogiCO2 Mk90 can be connected with remote Horn/Strobes as well as a remote Central Unit with digital display - advising you what to do in different ALARM situations!

The LogiCO2 Mk90 comes bundled with a trade leading five year warranty.



# Not everyone speaks English



We communicate with our customers and users  
**in their own language!**

In the modern World Communication is **KEY**. If the users can be assisted in solving issues via the Safety System itself, a lot of time is saved and it is much safer. In multi-lingual countries such as Canada and the United States the Central Unit Communicates in both languages.

We program our Safety Systems to Communicate in over 20 languages.

ID CO2 TWA  
1 ¡No hay sensores!  
No se encuentra el se

ID CO2 TWA  
1 Lost sensor  
找不到传感器 -

ID CO2 TWA  
1 Pas de détecteur !  
Détecteur non trouvé,

ID CO2 TWA  
1 Kein Sens. gefund.  
Sensor nicht gefunden

ID CO2 TWA  
1 Sensore assente!  
Sensore non rilevato,

ID CO2 TWA  
1 Lost sensor  
센서 분실- 적색

ID CO2 TWA  
1 Brak czujnika!  
Nie znaleziono czujni

ID CO2 TWA  
1 Lost sensor  
センサーが見つからず

ID CO2 TWA  
1 Lost sensor  
センサーが見当た



# Examples of places where LogiCO2 Safety Systems are used

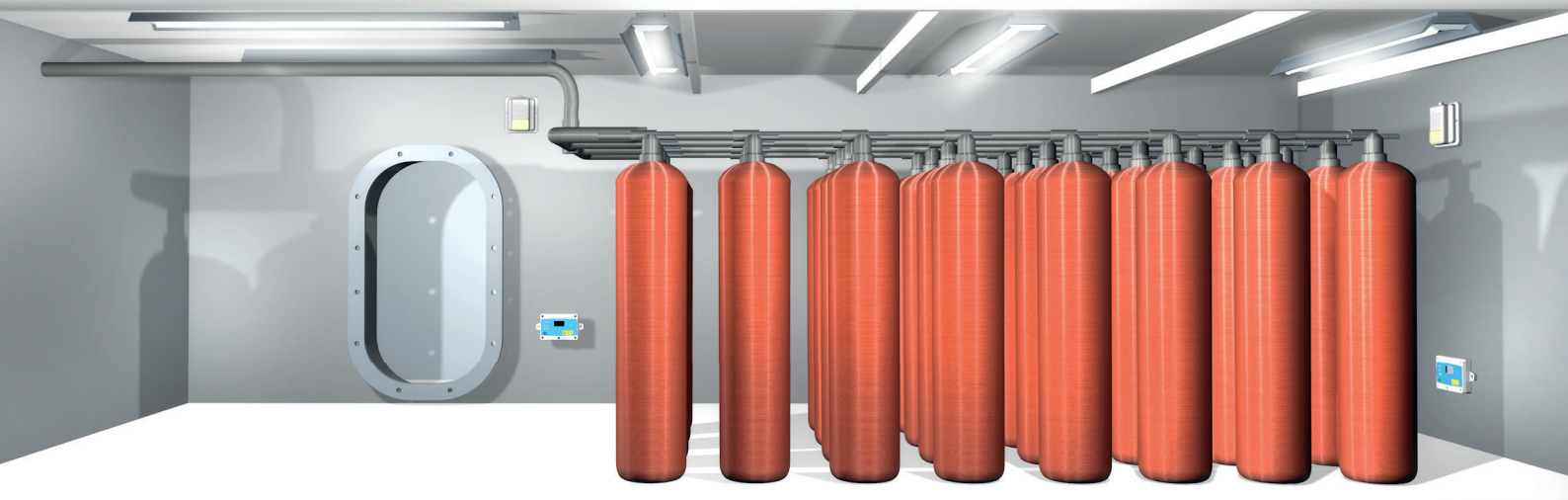
## Pubs and Restaurants

The LogiCO2 Safety System can monitor four alarm levels ensuring that all local and national safety codes concerning CO2 exposure are not exceeded. As well as insuring safety, the system will indicate when there are small leaks. They might not be dangerous but will undoubtedly be costly over time and detecting leaks will prevent you from running out of CO2, with the loss of sales and revenue as a result.



## Ships

Vast amounts of CO2 is stored on ships to extinguish fires. This can be hazardous for the personnel in case of a leak. Since CO2 is heavier than air it will accumulate in low areas. The LogiCO2 Safety Systems ensures that there are no dangerous leaks. After a fire has been extinguished with CO2, the system will indicate when it is safe to enter the area.



## Other CO2 applications

Slaughterhouses  
Freezing Industry  
Dry Ice Production  
Industrial CO2 Cleaning  
CO2 Smoke applications

Soft drinks  
Swimming pools  
Bio-ethanol fireplaces  
CO2 HVAC units  
Industrial dishwashing

Food packaging  
Industrial de-greasing  
Anti bacterial applications  
Refrigerant  
Water works

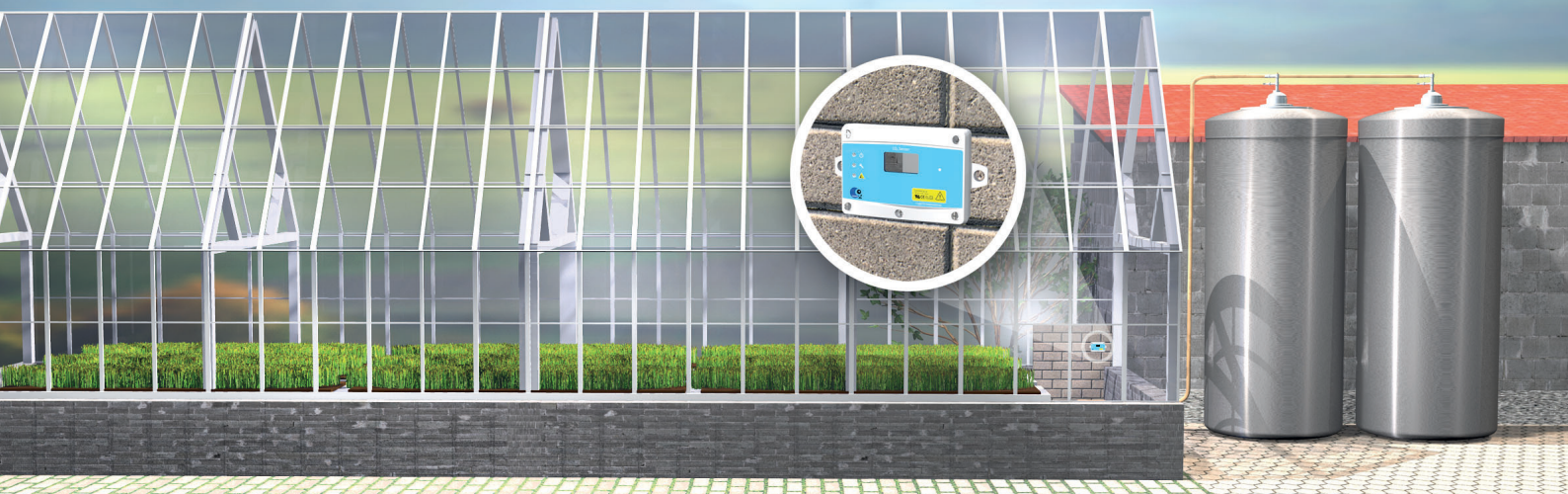
## Breweries and Wineries

Fermentation within the brewery industry produces CO2 which can have harmful effects on the personnel. The LogiCO2 System is the perfect safety solution, in order to comply with the European Safety Directives. In microbreweries or wineries up to eight sensors can be connected to a standard Central Unit. In larger breweries up to 29 sensors can be connected to a Telemetry based system, using the MODBUS protocol.



## Greenhouses

CO2 is added to greenhouses maximizing photosynthesis in the plants. Use the CO2 Safety System to improve safety as well as function. Using the LogiCO2 System it is possible to both control the CO2 levels in the greenhouse as well as ensuring safety for personnel according to existing legislation.

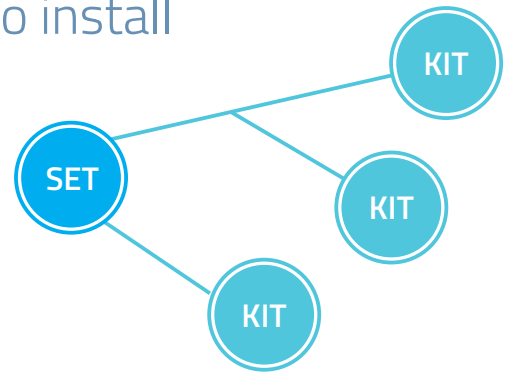




# Product SETS

Out of the box, ready to install

The LogiCO2 safety system SET is easy to install and expand by adding KITS. Everything needed is in the expansion KIT. The standard SET can be expanded up to 8 sensors. If necessary this number can be raised by using our special external powerboxes.



## CO2 Safety System SET

### Mk9 CO2 Safety Detector SET

The Carbon Dioxide (CO2) Safety System MK9 is designed to measure the CO2 concentration in the air. It provides an alarm in the event that a CO2 level considered dangerous is measured, in the area being monitored. This complete plug and play SET contains a Mk9 CO2 Sensor, a Mk9 Central Unit to display the measured values, a Horn/strobe and signage.



## CO2 Stand Alone SET

### Mk90 CO2 Stand Alone Sensor SET

The Mk90 is a CO2 monitor with integrated sound and light Alarm indication, designed to measure CO2 concentration in a confined space environment. It can be used as a Stand Alone set and does not need a central unit to function properly. It provides an alarm in the event that a CO2 level considered unhealthy/dangerous is reached, in accordance with existing safety codes, in the area being monitored. A light emitting diode (LED) indicates that the Mk90 is running properly.



## O2 System SET

### Mk9 O2 Detector SET

The O2-sensor is compatible with LogiCO2 Mk9 CO2 Safety System. It communicates via Modbus RTU with the LogiCO2 Mk9 Central Unit and can be used together with the different LogiCO2 CO2 sensors (Mk9 and Mk10). The unit is delivered together with a Horn/ Strobe alarm device and signage.



## Portable Safety System

### LogiCO2-Scout CO2 Monitor

We use the Smartphone's ability to communicate with our Personal CO2 Detector. This allows the user to send the sensor into the danger area and read the CO2 value from a safe distance. It makes the LogiCO2-Scout the economical choice when deciding which Personal CO2 detector to use. Made for both Android and Apple IOS.



# Expansion KITS

Extends the functionality of your SET

## Mk9 CO2 Central Unit KIT

The Central Unit Kit contains a MK9 Central Unit, the cables and the connectors needed to add a Central Unit to an existing MkVII, MK9 or MK10 installation without a Central Unit already installed.



## Mk9 CO2 Sensor KIT

The Mk9 KIT is used to expand an existing CO2 Safety System using the same simple plug and play technology as the SETs. It is also compatible backwards with the older MkVII generation, making it an ideal replacement if needed.



## Mk90 CO2 Sensor KIT

The CO2 Mk90 KIT can be used to add a CO2 sensor to an existing MkVII, Mk9 or Mk10 Set. It contains a CO2 Mk90 Sensor, a Horn/Strobe, the cables and connectors required for the connections and the signage.



## Mk9 O2 Sensor KIT

Expanding a System since the O2-sensor is compatible with LogiCO2 Mk9 CO2 Safety System. It communicates via Modbus RTU with the LogiCO2 Mk9 Central unit and can be used together with the different LogiCO2 CO2 sensors (Mk9 and Mk10). The unit is delivered together with a Horn/Strobe, cables and signage.



## Horn/Strobe LED KIT

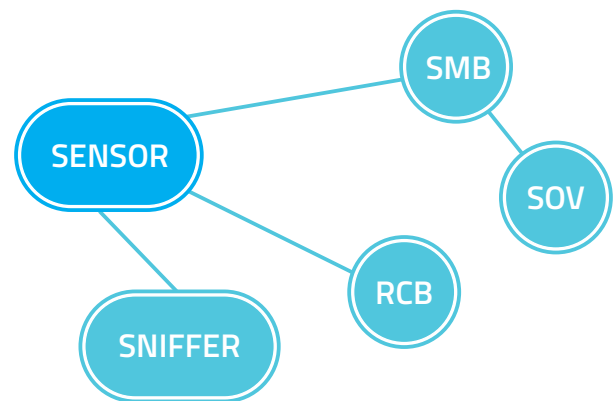
The Horn/Strobe has a blue power LED indicator and is delivered with 1 meter (3 feet) preconnected cable, a splitter, an extra 10 meter (33 feet) connection cable and a warning sign. **Observe!** The Horn/Strobe has two separate inputs, one for low alarm – Flashing Strobe and one for high alarm – Sounding Horn.



# System Accessories

Expand your system with extra functions

LogiCO2's product range offers several accessories, expanding the usage for different applications and complying with local Safety Codes.



## Safety Mode Box with Shut off valve

A Fail-Safe shut-off valve made for bulk CO2 containers. When you reach the Short Term Exposure Limit - The valve shuts off the CO2 flow, thus minimizing the risk of over exposure as well as saving the cost of losing the CO2. The valve is connected directly to the CO2 Safety System.



## Remote Control box RCB with relay delay

The RCB with relay delay is a remote connection box, an accessory for the LogiCO2 alarm systems, that makes it possible to transmit alarm indications to external devices, for example a fire alarm panel or to start a ventilator.



## Remote Control box RCB with relay delay and reset

The RCB with relay delay, reset button and mute on/off function is a remote connection box, an accessory for the LogiCO2 alarm systems, that makes it possible to transmit alarm indications to external devices, for example a Horn/Strobe.



## Sniffer (Bluetooth)

The Sniffer is a gateway for reading out measuring values from LogiCO2's CO2 and O2 Safety Systems. It is only possible to read-out information from the Sniffer (read only). The measuring values are sent via Bluetooth to a smartphone with the LogiCO2-Sniffer App installed.



## Sniffer Modbus

The Sniffer Modbus is a gateway for reading out measuring values and status (e.g. Alarms) from LogiCO2's CO2 and O2 Safety Systems. It is only possible to read-out information from the Sniffer Modbus (read only). It communicates as a slave via Modbus RTU (RS485) to external systems.



## Power Barrier

The Power Barrier enables you to connect multiple power supplies (up to eight) in one system. Each power supply has an output of 1 A insuring that the power limits are not exceeded on the cables and connectors in each loop. The Power Barriers still allows each separated sensor to communicate with the Central Unit.



## Power Monitor

The Power Monitor is a surveillance unit which ensures that the personnel are alerted in case there is a power failure that puts the LogiCO2 Safety System out of function. It has a built-in buzzer and place for two AAA alkaline batteries (batteries not included).



# The one stop supplier for CO2 safety



Sets and Kits



Portable



Horns & Strobes



Valves & Remote controls



Accessories and other sensors



Tutorials and Instructions



## CO2 Risk Calculator

**Determine if your establishment is safe.**

When calculating the risks with CO2, mechanical ventilation should not be taken into consideration. Partly because CO2 is a heavy gas, that is difficult to ventilate, but also because the ventilation can be switched off.

Download our free app "CO2 Risk Calculator" at Appstore or Google Play, or go to: [www.logico2.com/calculator/](http://www.logico2.com/calculator/)



Go to Risk Calculator  
on our website



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