



# Product Catalogue

## Air and Gas Sensors



*Save Life and Energy*

# High Quality

The Swedish company *SenseAir*<sup>®</sup> is a centre of competence for all kinds of IR gas measurements. We develop and produce affordable precision gas sensors for high volume applications. Our products mainly measure carbon dioxide (CO<sub>2</sub>). Carbon dioxide is a colorless gas that exists in the Earth's atmosphere and can be dangerous in high concentrations. When we exhale CO<sub>2</sub> it will quickly be mixed with the surrounding air even indoors and, provided that the ventilation is good, the concentration will be reduced to harmless levels.

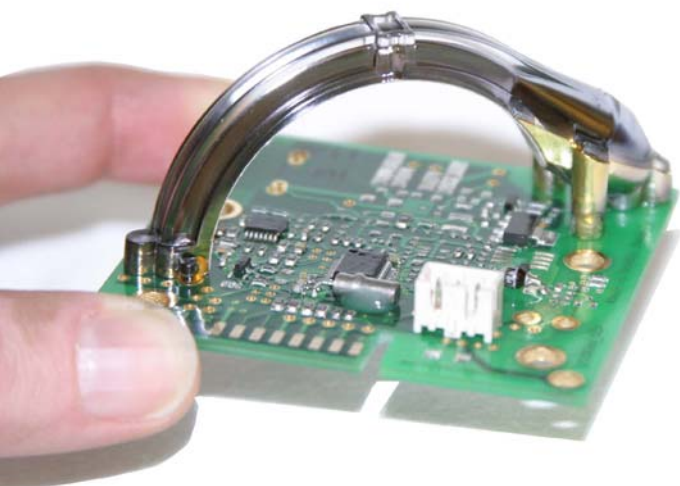
Our CO<sub>2</sub> sensors are used in ventilation control for energy savings and to enhance good indoor climate process yield and economic outcome in many bio-related processes, personal safety, for built-in appliances or other areas.

With over 20 years of experience *SenseAir*<sup>®</sup> has become a world leader in the field of NDIR (non-dispersive infra-red) technology. The measuring cell has been improved and is based on cost-effective production techniques in plastic. *SenseAir*<sup>®</sup> holds a great number of patents relating to its proprietary measurement technique.

Our sensors have more than 15 years life expectancy. In order to maintain high quality, 100% of the sensors are tested to comply fully with all the different performance criteria set up, such as sensor stability and calibration accuracy within the allowed temperature and humidity range.

The *SenseAir*<sup>®</sup> production system follows the ISO9001 standard and offers full traceability on all the critical components through individual unit serial numbers and PCB manufacturing batch numbers. All test data from each shipped sensor are stored in a database and can be traced at any time. Because of the Automatic Baseline Correction our sensors for fixed installation are maintenance-free, and do not require any further calibration when used in normal indoor air applications.

This product catalogue shows an overview of our main products, for more information or special requests please contact us or visit our website at [www.senseair.com](http://www.senseair.com).



# Applications



## Ventilation Control.....p. 3 - 6

One of our major markets is building automation where our sensors control individual fans, dampers, valves, etc. A common application is controlling ventilation in rooms with varying numbers of people such as offices, classrooms, and cinemas. The ventilation control is based on temperature and CO<sub>2</sub> measurements and helps you save energy and create a healthy indoor environment.



## Air Quality Monitoring.....p. 7

By measuring CO<sub>2</sub> you get a good indication of when new “fresh” outside air must be supplied for an acceptable indoor air quality. Bad ventilation can result in fatigue and headache. When the CO<sub>2</sub> levels exceed the defined levels an alarm is sounded. This helps you to create a healthy indoor environment in your home, at your office, in your children’s school etc.



## Safety.....p. 7 - 10

In today’s health- and energy-conscious environment, measuring CO<sub>2</sub> is important for safety and comfort, energy savings, and to warn you about potentially toxic CO<sub>2</sub> and CO levels. *SenseAir*<sup>®</sup> offers a full line of products for this application in, for example public garages, buildings, truck terminals, tunnels, and mines.



## Agriculture.....p. 10 - 11

CO<sub>2</sub> is necessary to all forms of life. It is a vital parameter in the production of all kinds of plant species, bacteria, poultry etc. CO<sub>2</sub> sensors can be used in process yield and economic outcome in many bio-related processes, such as in greenhouses, mushroom-farming, food transportation/storage, chicken hatcheries, incubators and dairying.



## OEM Modules.....p. 11 - 12

Our OEM modules are cost-optimized sensors for high volume applications intended to be integrated into customers’ own products. They can easily be adjusted to comply with differing customer requirements. The only restriction for what OEM modules can be used for is the creativity and inventiveness of the customer.

## Accessories.....p. 14

## Ventilation Control



eSENSE™

eSENSE™ - Disp

### eSENSE™ (Standard Configuration)

Measurement range	0 to 2000 ppm
Power supply	24 V AC/DC
OUT1 linear output	0 to 10 V DC (CO <sub>2</sub> )
OUT2 linear output	2 to 10 V DC or 4 - 20 mA (CO <sub>2</sub> )
Operation temperature	0 to 50°C
Dimensions (H x W x D)	100 x 80 x 28 mm
Accuracy	± 30 ppm ± 3 % of reading
Usage	Offices, schools, theatres, airports etc.

eSENSE™ is a CO<sub>2</sub> transmitter for climate control and fits directly on top of EU electrical junction box standards. The unit is available both with and without display for fixed installation in the climate zone. The transmitter helps you to save money by decreasing your energy consumption while creating a healthier indoor air climate.

Art. no.	Product	Additional features
050-8-0002	eSENSE™	No display
050-8-0005	eSENSE™ - Disp	Display
050-8-0026	eSENSE™ - TR	No display, terminal for resistive temperature probe
050-8-0036	eSENSE™ - Disp OUT1 0-5 V	Display, OUT1=0 to 5 V OUT2=2 to 10 V



eSENSE™ II

eSENSE™ II - Disp

### eSENSE™ II (Standard Configuration)

Measurement range	0 to 2000 ppm
Power supply	24 V AC/DC
OUT1 linear output	0 to 10 V DC (CO <sub>2</sub> )
OUT2 linear output	2 to 10 V DC or 4 - 20 mA (CO <sub>2</sub> )
Operation temperature	0 to 50°C
Dimensions (H x W x D)	130 x 85 x 30 mm
Accuracy	± 30 ppm ± 3 % of reading
Usage	Offices, schools, theatres, airports etc.

eSENSE™ II is a CO<sub>2</sub> transmitter for climate control and fits directly on top of US electrical junction box standards. The unit is available both with and without LCD display for fixed installation in the climate zone.

Art. no.	Product	Additional features
050-8-0014	eSENSE™ II	No display
050-8-0012	eSENSE™ II - Disp	Display
050-8-0048	eSENSE™ II - OUT1 0-5 V	No display, OUT1=0 to 5 V
050-8-0049	eSENSE™ II - Disp OUT1 0-5 V	Display, OUT1=0 to 5 V

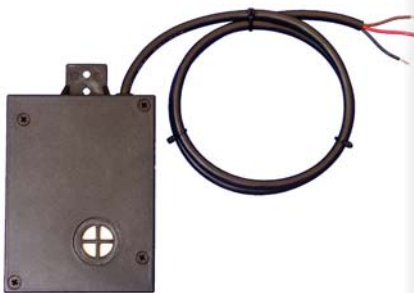


## eSENSE™ Duct/Industry (Standard Configuration)

Measurement range	0 to 2000 ppm
Power supply	24 V AC/DC
OUT1 linear output	0 to 10 V DC (CO <sub>2</sub> )
OUT2 linear output	2 to 10 V DC or 4 to 20 mA (CO <sub>2</sub> )
Operation temperature	0 to 50°C
Dimensions (H x W x D)	142 x 84 x 46 mm
Accuracy	± 30 ppm ± 3 % of reading
Usage	Offices, schools, theatres, airports etc.

eSENSE™ Duct and eSENSE™ Ind are two infrared and maintenance-free CO<sub>2</sub> transmitters, for climate control of buildings and other processes. eSENSE™ Duct is for installation in the ventilation duct. eSENSE™ Ind is a wall-mounted transmitter with protection class IP54 and is applicable in most large spaces.

Art. no.	Product	Additional features
050-8-0004	eSENSE™ Duct	No display
050-8-0009	eSENSE™ Duct - Disp	Display
050-8-0047	eSENSE™ Duct - OUT1 0-5 V	No display, OUT1= 0 to 5V
050-8-0032	eSENSE™ Ind	Protection class IP54, without duct probe
050-8-0033	eSENSE™ Ind - Disp	Protection class IP54, without duct probe



## eSENSE™ Slim (Standard Configuration)

Measurement range	0 to 2000 ppm
Power supply	24 V AC/DC
OUT1 linear output	0 to 10 V DC (CO <sub>2</sub> )
OUT2 linear output	None
Operation temperature	0 to 50°C
Dimensions (H x W x D)	106 x 67 x 26 mm
Accuracy	± 30 ppm ± 3 % of reading
Usage	Offices, schools, theatres, airports etc.

eSENSE™ Slim is used to measure indoor air carbon dioxide concentration. This product is an ultra-compact transmitter intended for factory mounting for both wall and duct applications with the protection class IP50. A 300 mm long cable connected to the PCB makes it possible to place the sensor where mounting is difficult.

Art. no.	Product	Additional features
050-8-0003	eSENSE™ Slim	
050-8-0045	eSENSE™ Slim - OUT1 0-5 V	OUT1=0 to 5 V

## Ventilation Control



### **aSENSE™** (Standard Configuration)

Measurement range	0 to 2000 ppm
Power supply	24 V AC/DC
OUT1 linear output	0/2 to 10 V DC or 0/4-20 mA (CO <sub>2</sub> )
OUT2 linear output	0/2 to 10 V DC or 0/4-20 mA (°C)
Temperature measurement	-20 to 60°C
Operation temperature	0 to 50°C
Dimensions (H x W x D)	120 x 82 x 30 mm
Accuracy	± 30 ppm ± 3 % of reading
Usage	Offices, schools, theatres, airports etc.

aSENSE™ is an advanced transmitter for installation in the climate zone. It measures both CO<sub>2</sub> concentration and temperature in ambient air. The data is transmitted to a BMS system or controller. The transmitter is flexible and suits many different ventilation strategies. All aSENSE™ can be configured with UIP Software.

Art. no.	Product	Additional features
040-8-0001	aSENSE™	No display
040-8-0002	aSENSE™ - Disp	Display
040-8-0025	aSENSE™ - Disp RL	Display, relay
040-8-0028	aSENSE™ - Ind Disp RL	Display, relay, protection class IP54
040-8-0029	aSENSE™ - MB RS485	No display, Modbus RS485 communication
040-8-0096	aSENSE™ - Disp Lon	Display, LON communication
040-8-0091	aSENSE™ - Disp MB RS485 LOG	Display, Modbus RS485 communication, Logger
040-3-0002	SENSE™ - 10% Disp	Display, measurement range 0 to 10% <sub>vol</sub> (CO <sub>2</sub> )



### **aSENSE™ Duct** (Standard Configuration)

Measurement range	0 to 2000 ppm
Power supply	24 V AC/DC
OUT1 linear output	0/2 to 10 V DC or 0/4-20 mA (CO <sub>2</sub> )
OUT2 linear output	0/2 to 10 V DC or 0/4-20 mA (°C)
Temperature measurement	-20 to 60°C
Operation temperature	0 to 50 °C
Dimensions (H x W x D)	142 x 84 x 46 mm, probe 245 mm
Accuracy	± 30 ppm ± 3 % of reading
Usage	Offices, schools, theatres, airports etc.

aSENSE™ Duct is an infrared and maintenance-free carbon dioxide transmitter for installation in the ventilation duct. The unit has an industrial housing (protection class IP65) with duct probe.

Art. no.	Product	Additional features
040-8-0019	aSENSE™ Duct	No Display
040-8-0031	aSENSE™ Duct - Disp	Display



## aSENSE™ VAV (Standard Configuration)

Measurement range	0 to 2000 ppm
Power supply	24 V AC/DC
OUT1 linear output	0 to 10 V DC or 0/4-20 mA, 600 to 900 ppm (CO <sub>2</sub> ) 23-24 °C
OUT2 linear output	2 to 10 V DC or 0/4-20 mA, 600 to 900 ppm Closed >600 ppm Open <500 ppm (CO <sub>2</sub> )
OUT3 Relay	0 to 10 V DC, 20 to 18 °C
OUT4 linear conversion	-20 to 60°C
Temperature measurement	0 to +50 °C
Operation temperature	120 x 82 x 30 mm
Dimensions (H x W x D)	± 30 ppm ± 3 % of reading
Accuracy	Offices, schools, theatres, airports etc.

aSENSE™ VAV is a stand alone controller that measures both CO<sub>2</sub> concentration and temperature in ambient air and has a terminal for extra functions for example manual override and it's also prepared for Modbus. The unit is a key component for energy-effective and healthy climate control of rooms with a varying number of people.

Art. no.	Product	Additional features
040-8-0011	aSENSE™ VAV - Hdisp	Hidden display
040-8-0016	aSENSE™ VAV - Disp	Display
040-8-0010	aSENSE™ VAV - Disp SL	Display, screw locked lid
040-8-0040	aSENSE™ VAV - Hdisp MB RS485	Hidden display, Modbus RS 485 communication
040-8-0079	aSENSE™ VAV - Hdisp LON	Hidden display, LON communication
040-8-0061	aSENSE™ VAV - Hdisp RH	Hidden display, relative humidity 0 to 100% <sub>vol</sub>



## aSENSE™ VAV Duct (Standard Configuration)

Measurement range	0 to 2000 ppm
Power supply	24 V AC/DC
OUT1 linear output	0 to 10 V DC or 0/4-20 mA, 600 to 900 ppm (CO <sub>2</sub> ) 23-24 °C
OUT2 linear output	2 to 10 V DC, 600 to 900 ppm (CO <sub>2</sub> )
OUT3 Relay	Closed >600 ppm Open < 500 ppm (CO <sub>2</sub> )
OUT4 linear output	0 to 10 V DC or 0/4-20 mA, 20-18 °C
Temperature measurement	-20 to 60°C
Operation temperature	0 to 50 °C
Dimensions (H x W x D)	120 x 82 x 30 mm
Accuracy	± 30 ppm ± 3 % of reading
Usage	Offices, schools, theatres, airports etc.

aSENSE™ VAV Duct is a stand alone controller with built-in sensors that measure CO<sub>2</sub> and temperature for installation in the ventilation duct. eSENSE™ VAV Duct has an industrial housing and is also prepared for Modbus.

Art. no.	Product	Additional features
040-8-0024	aSENSE™ VAV Duct - Disp	Display

## Air Quality Monitoring/ Safety



### eSENSE™ FAI (Standard Configuration)

Measurement range	0 to 2000 ppm
Power supply	24 V AC/DC
OUT1 linear output	0 to 10 V DC (CO <sub>2</sub> )
Operation temperature	0 to 50 °C
Dimensions (H x W x D)	100 x 80 x 28 mm
Accuracy	± 30 ppm ± 3 % of reading
Usage	Classrooms, offices, living-rooms etc.

eSENSE™ FAI “Fresh Air Indicator” is an infrared and maintenance-free carbon dioxide alarm for installation in areas where the carbon dioxide levels need to be monitored, such as classrooms and offices. The product measures the carbon dioxide concentration in ambient air and alarms with sound and light when the levels exceed defined levels.

Art. no.	Product	Additional features
050-8-0061	eSENSE™ FAI	Fits European standard J-boxes (mute button on the side)
050-8-0057	eSENSE™ FAI II	Fits US standard J-boxes (visible red mute button on the front)



### SenseAir® (Standard Configuration)

Measurement range	0 to 6000 ppm
Power supply	Battery (charger included)
Audiable alarm	No
Measurement temperature	0 to 50 °C
Operation temperature	0 to 50 °C
Dimensions (H x W x D)	125 x 52 x 32 mm
Accuracy	± 30 ppm ± 3 % of reading
Usage	Offices, schools, theatres, airports etc.

Portable SenseAir® is a light-weight CO<sub>2</sub> instrument with a digital display designed to measure the CO<sub>2</sub> concentration and temperature in the surrounding air. A built-in data logger makes SenseAir® the perfect choice for monitoring the carbon dioxide concentration in a number of different applications and environments. The SenseAir® is also ideal for measuring carbon dioxide concentration in incubators, greenhouses, mushroom farms etc., where correct levels are essential for the process outcome. Included in original purchase: unit with internal battery, protective casing, communication cable, wall-plug battery charger.

Art. no.	Product	Additional features
07-1-0038	SenseAir®	Display, grey



## SenseAir® Alarm (Standard Configuration)

Measurement range	0 to 3%
Power supply	Battery (charger included)
Audible alarm	Yes
Operation temperature	0 to 50 °C
Dimensions (H x W x D)	125 x 52 x 32 mm
Accuracy	± 30 ppm ± 3 % of reading
Usage	Offices, schools, theatres, airports etc.

SenseAir® Alarm is a hand-held, pocket-sized alarm instrument with a digital display designed to measure the CO<sub>2</sub> concentration in surrounding air. The large clear display presents both current carbon dioxide concentration and the 8 hours Time Weighted Average (TWA) CO<sub>2</sub> value. Integrated logging and alarm functions make SenseAir® Alarm the perfect choice for personal safety applications. Included in original purchase; unit with internal battery, protective casing, communication cable, wall-plug battery charger.

Art. no.	Product	Additional features
07-2-0009	SenseAir® Alarm	Display, orange



## pSENSE (Standard Configuration)

Measurement range	0 to 2000 ppm (extended 10 000 ppm)
Power supply	4 x AA type (UM-3)
Audible alarm	Yes
Temperature measurement	0 to 60 °C
Operation temperature	0 to 50 °C
Dimensions (H x W x D)	209 x 70 x 58 mm
Accuracy	± 75 ppm ± 3 % of reading (0 to 2000 CO <sub>2</sub> )
Usage	Greenhouses, incubators, offices etc.

Model pSENSE is a flexible and easy to use hand-held instrument designed to measure the CO<sub>2</sub> concentration and temperature in surrounding air. The model is also ideal for measuring CO<sub>2</sub> concentration in incubators, greenhouses, mushroom farms etc. where correct levels are essential for the process outcome. Audible alarm, Max/Min Average as well as TWA and STEL measurements are possible. With the pSENSE data cable accessory you can simple log data for longer time .

Art. no.	Product	Additional features
00-0-0015	pSENSE	Yellow
00-0-0018	Com Cable pSENSE RS232	Data cable and software for pSENSE

## Safety



### **pSENSE RH** (Standard Configuration)

Measurement range (CO <sub>2</sub> )	0 to 5000 ppm (extended 10 000 ppm)
Measurement range (RH)	10 to 90 %
Power supply	4 x AA type (UM-3)
Audible alarm	Yes
Temperature measurement	0 to 60 °C
Operation temperature	0 to 50 °C
Dimensions (H x W x D)	209 x 70 x 58 mm
Accuracy	± 30 ppm ± 3 % of reading (0 to 2000 ppm)
Usage	Greenhouses, incubators, offices etc.

*pSENSE RH* works perfect for measuring the indoor air quality parameters CO<sub>2</sub>, temperature and RH%. Audible alarm, Max/Min Average as well as TWA and STEL measurements are possible. With a battery capacity covering more than 24 hours, the model works perfectly for diagnosing ventilation using carbon dioxide as the surrogate ventilation index. With the *pSENSE* data cable accessory can you simple log data for longer time, (you can find the data cable at p.14).

Art. no.	Product	Additional features
00-0-0016	<i>pSENSE</i> - RH	Grey
00-0-0017	<i>Calibration KIT RH</i>	Only for <i>pSENSE RH</i>
00-0-0018	<i>Data cable pSENSE</i>	For <i>pSENSE</i> and <i>pSENSE RH</i>



### **aSENSE™ Alarm** (Standard Configuration)

Measurement range	0 to 4% <sub>vol</sub>
Power supply	24 V AC/DC
OUT1 linear output (CO <sub>2</sub> )	0 to 20 mA (CO <sub>2</sub> )
OUT2 linear output (CO <sub>2</sub> )	4 to 20 mA (CO <sub>2</sub> )
OUT3 (Relay 1)	Open <1.4 % closed >1.5 % (CO <sub>2</sub> )
OUT4 (Relay 2)	Open >2.9 % closed <3.0 % (CO <sub>2</sub> )
Operation temperature	0 to 50 °C
Dimensions (H x W x D)	142 x 84 x 46 mm
Accuracy	± 200 ppm ± 3 % of reading (0 to 3% )
Usage	Wineries, breweries, sport arenas etc.

*aSENSE™ Alarm* is used to measure CO<sub>2</sub> in high concentration. The sensor has dual relays and is a very flexible alarm unit with a programmable output for linear control of fans as well as peripheral alarm equipment. The sensor can also be connected to a central unit. The sensor can be configured with UIP Software.

Art. no.	Product	Additional features
040-7-0019	<i>aSENSE™ Alarm</i> - Disp	Display, Modbus RS 485 communication, Protection class IP54



## aSENSE™ MIII (Standard Configuration)

Measurement range (CO <sub>2</sub> )	0 to 2000 ppm
Measurement range (CO)	0 to 100 ppm
Power Supply	24 VAC/DC
OUT1 linear output	0 to 10 V DC (CO)
OUT2 linear output	0 to 10 VDC (CO <sub>2</sub> )
OUT3 relay	Closed <30ppm CO <1400ppm (CO <sub>2</sub> ) Open >35ppm CO >1500ppm (CO <sub>2</sub> )
OUT 4 open collector	Error detection
Operation temperature	0 to 50 °C
Dimensions (H x W x D)	142 x 84 x 46 mm
Accuracy CO <sub>2</sub>	± 30 ppm ± 3 % of reading
Accuracy CO	± 10 ppm
Usage	Garages, tunnels, mines etc.

aSENSE™ MIII is a controller with built-in sensors to monitor carbon dioxide and carbon monoxide simultaneously. With these parameters, the programmable unit can control for example ventilation rates and generate alarm signals. aSENSE™ MIII is designed for stand-alone operation, as well as being connected to larger building automation systems. The product has protection class IP54 and is applicable in most large spaces where combustion is the source of the potential toxic danger. The sensor can be configured with UIP Software.

Art. no.	Product	Additional features
040-8-0064	aSENSE™ MIII - Disp	Display
040-8-0066	aSENSE™ MIII Duct - Disp	



## aSENSE™ GH (Standard Configuration)

Measurement range	0 to 2000 ppm
Power supply	24 V AC/DC
OUT1 linear output	0/2 to 10 V DC/4 - 20 mA, (CO <sub>2</sub> )
OUT2 linear output	0/2 to 10 V DC/4 - 20 mA, (°C)
OUT3 relay	Closed/open <900ppm >1000ppm (CO <sub>2</sub> )
OUT 4 open collector	ON/OFF
Operation temperature	0 to 50°C
Dimensions (H x W x D)	142 x 84 x 46 mm
Accuracy	± 30 ppm ± 3 % of reading
Usage	Green houses, incubators, stables etc.

Model aSENSE™ GH "Green House" is a transmitter for installation in the climate zone. The special coated PCB and extra dust/water protection filter make aSENSE™ GH suited for all kinds of greenhouses, incubators and similar environments. The unit measures both temperature and carbon dioxide concentration, both very important parameters when trying to achieve an optimum growth, and has the ABC off as default.

Art. no.	Product	Additional features
040-8-0063	aSENSE™ GH - Disp	Display

## Agriculture/ OEM Modules



### **aSENSE™ Incubator** (Standard Configuration)

Mesurement range	0 to 3 % <sub>vol</sub>
Power supply	24 V AC/DC
OUT1 linear output	0 to 5 V DC, 0 to 3 % <sub>vol</sub> (CO <sub>2</sub> )
OUT2 linear output	0 to 5 VDC, 0 to 2 % <sub>vol</sub> (CO <sub>2</sub> )
Operation temperature	0 to 50 °C
Dimensions (H x W x D)	142 x 84 x 46 mm
Accuracy	± 200 ppm ± 3 % of reading
Usage	Hatcheries etc.

aSENSE™ Incubator is an all-digital transmitter and it is used to measure the carbon dioxide concentration inside incubators. The linear output functions are pre-programmed for transmitting CO<sub>2</sub> data for Direct Digital Control (DDC) of climate chambers.

Art. no.	Product	Additional features
040-2-0001	aSENSE™ Incubator	



### **CO<sub>2</sub> Engine® K22** (Standard Configuration)

Measurement range	0 to 2000 ppm
Power supply	4.5 to 12.0 V DC
Operation temperature	-5 to 50 °C
Dimensions (H x W x D)	35 mm x 60 mm x 65 mm
Accuracy	± 75 ppm ± 3 % of reading
Usage	Alarm applications, offices, schools etc.

K22 series is available in 3 different models: CO<sub>2</sub> Engine® K22 LO with a linear output, CO<sub>2</sub> Engine® k22 OC which has an open collector and CO<sub>2</sub> Engine® K22 PWM with pulsed wave modulation. K22 sensor module is designed to be built into alarm or stationary ventilation equipment, such as window vent or duct exhaust actuators, serving as a linear transmitter of CO<sub>2</sub>. In spite of being based on reliable infrared gas sensing technology, and being very precise, the design is very cost-efficient.

Art. no.	Product	Additional features
022-6-0007	CO <sub>2</sub> Engine® K22 LO	Linear output 0 to 5 V
022-6-0012	CO <sub>2</sub> Engine® K22 OC	Open collector open >800 ppm closed <1000 ppm (CO <sub>2</sub> )
022-6-0005	CO <sub>2</sub> Engine® K22 PWM	Open collector with pulsed wave modulation



## CO<sub>2</sub> Engine® K30 (Standard Configuration)

Measurement range	0 to 5000 ppm
Power supply	4.5 to 12.0 VDC
OUT1 linear output	0 to 4 V DC, 0 to 2000 ppm (CO <sub>2</sub> )
OUT2 linear output	1 to 5 V DC, 0 to 2000 ppm (CO <sub>2</sub> )
OUT3 digital output	700/800 ppm (CO <sub>2</sub> )
OUT4 digital output	900/1000 ppm (CO <sub>2</sub> )
Operation temperature	0 to 50 °C
Dimensions (H x W x D)	14 mm x 57 mm x 51 mm
Accuracy	± 30 ppm ± 3 % of reading
Usage	Medicals, containers etc.

CO<sub>2</sub> Engine® K30 can be customized for a variety of sensing and control applications. This platform is designed to be an OEM module for built-in applications in a host apparatus. K30 is a flexible product with 2 analog outputs and 2 digital outputs that can be configured with SADK or other custom software to meet your requirement.

Art. no.	Product	Additional features
030-8-0006	CO <sub>2</sub> Engine® K30 STA	Standard
030-7-0001	CO <sub>2</sub> Engine® K30 3%	0 to 3% <sub>vol</sub> (CO <sub>2</sub> )



## CO<sub>2</sub> Engine® platform K33

Measurement range	0 to 30 % <sub>vol</sub>
Power supply	4.5 to 12.0 V DC
Operation temperature	0 to 50°C
Dimensions (H x W x D)	19 mm x 57 mm x 51 mm
Accuracy	± 0,2 % ± 3 % of reading
Usage	Alarm applications, containers etc.

The K33 sensor platform CO<sub>2</sub> Engine® K33 can be customized for a variety of sensing, control and alarm applications. This platform is designed to be a low power OEM module for built-in applications in a host apparatus.

Art. no.	Product Name	Additional features
033-9-0001	CO <sub>2</sub> Engine® ICB	Open Collector with PWM, Linear 0 to 5 V (0-20 % <sub>vol</sub> )
033-9-0006	CO <sub>2</sub> Engine® ICB-F	Open Collector with PWM, Linear 0 to 5 V (0-20 % <sub>vol</sub> ), Tube In/Out
033-9-0002	CO <sub>2</sub> Engine® BLG	Internal Logger, RH+Temp, Sleep mode ability
033-9-0009	CO <sub>2</sub> Engine® BLG-F	Internal Logger, RH+Temp, Sleep mode ability, Tube In/Out
033-8-0007	CO <sub>2</sub> Engine® ELG	0 to 5000 ppm (CO <sub>2</sub> ), Internal Logger, RH+Temp, Sleep mode ability

## Accessories



### Zero Calibration Kit

Dimensions (H x W x D)	26 x 156 x 89
Rechargeable battery	Li-Ion 7.2 V 1550mAh
CO <sub>2</sub> cartridge filter	6 Included
Net adapter	Included

The Zero Calibration Kit produces a calibration gas, free of CO<sub>2</sub> through chemical adsorption. It can be used to calibrate the zero point of any *SenseAir*<sup>®</sup> CO<sub>2</sub> sensor. The zero calibration bag offers a fast, cost-effective and simple calibration. The CO<sub>2</sub> cartridge filter lasts for 8.5 hours calibration and then needs to be replaced. (The sensor in the image is not included).

Art. no.	Product	Additional features
00-0-0022	<i>Zero Calibration Kit</i>	



### SADK - SenseAir Development Kit

#### FEATURES

- Log data
- Configure outputs
- Configure ABC function
- Configure FRAC

#### THE PACKAGE INCLUDE

- SADK Interface
- SADK Program
- USB Cable
- Instruction Manual

The SADK is a configuration and test utility to assist you in your work with our CO<sub>2</sub> *Engine*<sup>®</sup> products and *eSENSE*<sup>™</sup> (K50 platform). The program gives you access to the main features of the connected product. Because of the different functions of the models, various options will be displayed during the operation of each instrument. The product allows you to change settings and make calibrations. You can easily change all associated parameters and how often the ABC-function should calibrate. What can be done may vary depending on the model that is connected. (The sensor in the image is not included).

Art. no.	Product	Additional features
00-0-0012	<i>SADK</i>	For calibration and configuration of <i>CO<sub>2</sub> Engine</i> <sup>®</sup> and <i>eSENSE</i> (K50)
100471	<i>Data cable aSENSE</i> <sup>™</sup>	For computer connection with UIP etc.

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