

# Carbon dioxide (CO<sub>2</sub>)

## Relay and analogue output



### - aSENSE Carbon dioxide (CO<sub>2</sub>), detector

#### General:

aSENSE is a range of detectors for tough environment, designed for use in:

- Plant rooms with CO<sub>2</sub>
- Low temperature rooms, freezing rooms etc where CO<sub>2</sub> is used.

#### Models:

- Room mounting (IP21 or IP54)
- Duct mounting
- Low temp model, down to -30°C

The detectors can be used as stand alone, connected to a monitoring unit or other monitoring systems.

#### Measuring ranges and alarm levels:

Relevant alarm levels depend on application. Check local standards and regulations as hygienic max values etc.

Models with range 0-5000ppm are designed to detect and give alarm for a CO<sub>2</sub> leakage in plant rooms, refrigerated or freezing rooms.

For refrigeration applications an alarm level of 2000 ppm is recommended.

A normal indoor CO<sub>2</sub> concentration varies between ~450 to 1200 ppm.

2000 ppm is therefore typically the result of a leakage from a CO<sub>2</sub> system.





#### KEY FEATURES

- *Non dispersive infrared red (NDIR).*
- *Industrial enclosure IP54*
- *For freezing rooms, down to -30°C*
- *High selectivity – no false alarms*
- *LCD display*
- *Self diagnostic*
- *Service time > 5 year*
- *Expected lifetime >15 year*
- *Output (0)4-20mA or (0)2-10V DC and relay output*
- *Easy to calibrate. Tools for 0-calibration is available*
- *Lon Works and RS485 as options*

#### Technical Data:

Detection principle:	Non dispersive infrared (NDIR) with Automatic Baseline Correction (ABC).
Gas sampling:	Diffusion
Range:	0-2000ppm (aSENSE) 0-5000ppm (aSENSE-5000)
Accuracy:	Normal ± 1% of range. ±5% of measured value.
Start time:	1 min. (@ full spec 15 min.)
Indications:	LED alt LCD display (depending on model)
Relay outputs:	Closing contact max 24V AC/DC 1A
Analogue output:	UTG.1 & UTG.2 0/2-10 VDC/4-20 mA Rload < 500 OHM. Configured with one jumper for current/voltage and one jumper for 0-100% / 20-100%.
Power:	24 V AC/DC±20%, 50-60 HZ
Power consumption:	<3 watt average (see other side, LT-aSENSE-5000-R)
Ambient temperature:	see other side
Humidity:	0 to 95% Rh (none condensing)
Material:	PC
Enclosure:	IP21 or IP54
Cable glands:	4 x M16
Weight:	see other side
Dimensions:	see other side

# Product summary

Order code	Model	Description		
	<b>aSense</b>	(CO <sub>2</sub> ) detector (room mounting IP21) with relay and display. 120x82x30mm		
36-110	aSENSE-R-D	0-2000 ppm, IP21, 24VAC/DC		
36-120	aSENSE-5000-R-D	0-5000 ppm, IP21, 24VAC/DC		
	<b>aSENSE IP54</b>	Splash proof detector for room mounting with relay and display Ambient temperature 0 .. +50°C 150x85x48mm		
36-112	aSENSE-R-D-IP54	0-2000 ppm, IP54, 24VAC/DC		
36-122	aSENSE-5000-R-D-IP54	0-5000 ppm, IP54, 24VAC/DC		
	<b>UG-aSense</b>	(CO <sub>2</sub> ) detector for duct mounting with relay and display. Ambient temperature 0 .. +50°C 110x287x159mm Tube length 600mm		
36-115	UG-aSENSE-R-D	0-2000 ppm, IP54, 24VAC/DC		
36-125	UG-aSENSE-5000-R-D	0-5000 ppm, IP54, 24VAC/DC		
	<b>LT-aSense</b>	(CO <sub>2</sub> ) detector for installation in cold rooms, relay output Built in heater, NOTE! power consumption up to 2A Ambient temperature -30°C .. +50°C 180x95x65mm		
36-130	LT-aSENSE-5000-R	0-5000 ppm, IP54, 24VAC/DC		

*Preset alarm levels:*

*Model - 2000*

*close at 1000ppm and open again at 900ppm.*

*Model - 5000*

*close at 2000ppm and open again at 1800ppm.*