GMA313 T

Carbon dioxide monitor

- Low temperature „T” version
- Rated to -30°C for freezer rooms
- Permanent self-check
- State-of-the-art microprocessor technology
- Infrared sensor
- Sensor lifetime 5 years +
- Safe and economic

Worldwide Supplier Of Gas Detection Solutions

GMA313 T - Carbon dioxide monitor

The best solution for CO_2 monitoring from the specialists in gas detection

The carbon dioxide monitor GMA313 T indicates a gas hazard immediately and reliably. The built-in alarm LED and loud horn provide a warning before entering the room. The external visual alarm GMA313 T EQ also gives a warning wherever you want it, e.g. at the stairway or at the bar. The GMA313 T offers state-of-the-art sensor and microprocessor technology from a compact unit.

The sensor and the electronics, horn and lights are integrated in one enclosure, thus saving installation cost. The robust casing is splash-water proof (IP54), so splash-water cannot enter and damage the monitor. Thermostat control and temperature compensation of the sensor ensure reliable measurements and safety even in case of sudden temperature changes.

The infrared (NDIR) sensor has a considerably longer lifetime than an electrochemical CO_2 sensor. The GMA313 T is low maintenance, robust and reliable. Installation of the GMA313 T is very simple, a 230V mains plug is supplied.

Infrared principle

Carbon dioxide (CO_2) absorbs light in the infrared range of the spectral. The NDIR technology of GfG´s sensor detects the carbon dioxide concentration precisely and reliably. The infrared light emitted by a lamp passes through the gas sample. Carbon dioxide absorbs the light in a narrow spectral range.

The remaining light is measured at the detector. The difference between emitted and detected light is proportional to the gas concentration. Water vapour and other gases, which may be present in the sensor chamber, do not affect the light absorption in this spectral range.

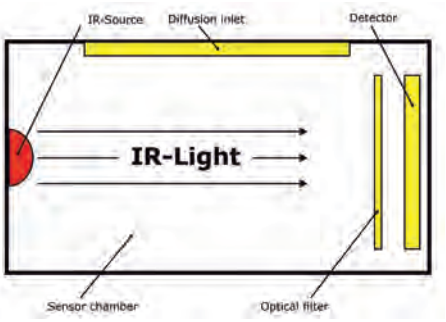
Safe detection results, even with temperature changes

Precise optical measurement ensures best accuracy and repeatability. The IR principle is as distinct as a fingerprint in criminology.

This means that only carbon dioxide is detected, thus eliminating false alarms from interfering gases. GfG products use electronics with voltage stabilisation and temperature compensation. This results in stable measurement values even with considerable temperature variations.

Robust technology for long lifetime

The GMA313 T has no moving parts which could be subject to wear and tear. This ensures a long lifetime and reduced service requirements. Permanent self-check of functional capability provides additional safety. Sensor and electronics are protected by a robust enclosure (IP54).



GMA313 T Technical Data

Gas:
Carbon dioxide (CO_2)

Detection range:
0 .. 5 %-Vol.

Detection principle:
Non dispersive infrared absorption
Thermostat-controlled » no effect from temperature variations
No condensation of humidity » no false measurement values

Gas supply:
Diffusion

Expected sensor life:
> 5 years

Humidity:
0 .. 99 % r.h.

Pressure:
700 .. 1300 hPa

Ambient temperature:
-30°C .. +45°C

Casing protection:
IP54

Alarm threshold:
1,5 and 3,0 %-Vol. CO_2

Alarm:
Built-in horn, 95dB(A) at 30 cm
LED indication
Connection for external alarm and reset
Optional potential-free relay contact

Display:
Red LED, flashing: pre-alarm
Red LED, permanent: main alarm
Green LED: operation
Yellow LED: fault

Voltage supply:
230 V 50 Hz, incl. 2 m cabel and plug

Dimensions:
100 x 100 x 58 mm (WxHxD)

Weight:
approx. 200 g

Accessories:
External visual alarm and reset, impact protection

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