



CC 33 Transmitter

for flammable gases
in explosion-proof design Ex-Zone 1

It has always been our aspiration to combine innovative ideas and technology with functional design. This is how quality and longevity come about. Attributes symbolic of the name GfG in gas measurement.

Are you looking for an innovative transmitter for flammable gases, but need explosion protection? Then a transmitter from the GfG 33 series is the right choice.

Robust housing for every application

The transmitters of the 33 series are flameproof encapsulated and fulfill the requirements of the type of protection „d“. Depending on the application, you can choose the 33 transmitter with an epoxy-based aluminum or a pure stainless steel housing. In order to meet the quality requirements of our customers and our own standards in terms of durability, we use a particularly high-quality and durable Viton seal in the 33 series. This can withstand even the toughest operating conditions for many years.

Variants

GfG offers the CC 33 in two variants:



For conventional industrial conditions The CC 33 is available in a lacquered die-cast aluminum housing with 10mm thick bulletproof glass. Applications with special

conditions such as e.g. in the Food industry can be covered by a unpainted housing made of stainless steel with a 15mm thick bulletproof glass.

Colored graphic display

Flameproof Gland

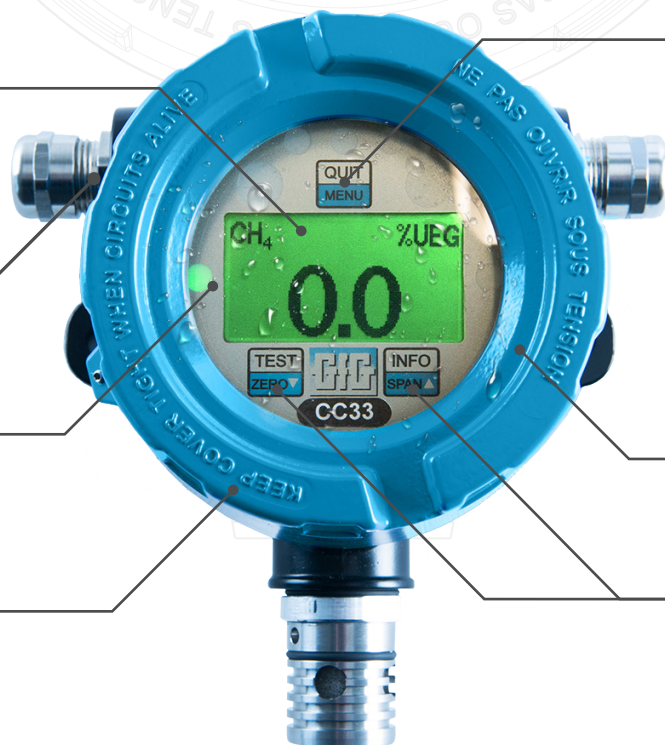
Status-LEDs

Pressure-resistant aluminum or stainless steel housing

Magnetic control button

Three freely programmable relay outputs

Magnetic control buttons



All combustible gases under control



Operation by means of magnetic pin

The three magnetic switches behind the protective glass, which is up to 15mm thick, can be operated using the GfG magnetic pin. The GfG typical three-button operation is easy to understand. The menu is clearly structured and logically structured.

All transmitters of the 22, 29 and 33 series have a uniform user interface. The uniform operation and the logical system structure keep your training and maintenance effort as low as possible.



Proven and innovative is not a contradiction

The CC 33 works on the principle of catalytic heat generation (WT), a proven method for measuring combustible gases. The transmitters are equipped with high-performance electronics for voltage stabilization, processing of measured value output and temperature compensation. The long life of the sensors minimizes follow-up costs.

Universal signal transmission

The measured values and status displays of the 33 series can be transmitted either analog or digital via the Modbus interface. Due to the different variants of signal transmission, a transmitter of the 33 series can be connected to almost any gas warning system as an additional measuring point or in exchange for existing transducers.

Signal processing

The embedded software of the 33 transmitter linearises the measurement signal and compensates for temperature influences. As a result, correct measured values are transmitted even in the event of weather-related temperature fluctuations. The execution of the software enables the detection of faults and, in the Modbus variant, the requirement of required service or maintenance work.

Sensor technology

With improved sensor technology and the unique GfG „chimney effect“, the CC 33 transmitter for combustible gases has one of the fastest response times in the world. There are more crucial seconds left to initiate countermeasures and to bring people to safety.

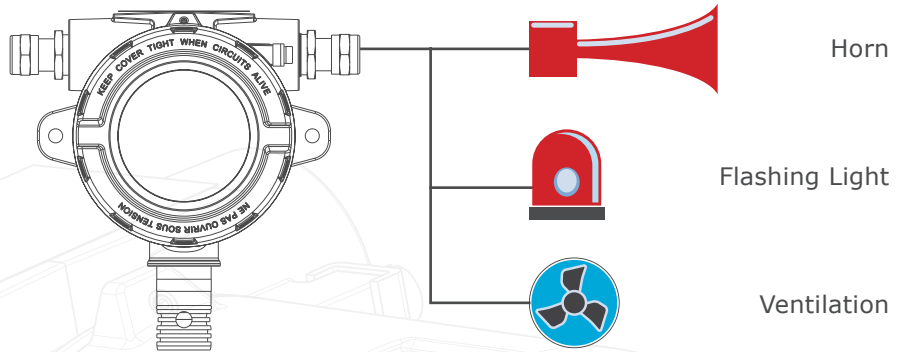


Smart sensors

Pre-calibrated sensor modules can be screwed directly into the sensor receptacle on the housing of the CC 33. The smart GfG sensors are pre-programmed with all the necessary parameters and can be used without much effort („plug and play“). Sensor changes are shown in the display. (catalytic and electrochemical sensors)

Three freely programmable internal relays

The 33er transmitters can be used as a „stand-alone system“. You can set the two alarm thresholds individually and freely program the optional three relays. You do not need a cable to a controller and you can nevertheless reliably switch safety-related devices.



With colored graphic display

The clearly laid-out graphic display makes it easy to read the device status, the current measured value and many other important information. In the event of an alarm, the display turns red. The large LEDs signal from a distance the current device status and thus serve the rapid information of your employees about any alarms or malfunctions.

Using the display, you can easily navigate through the clear device menu and make various settings, including calibration, depending on your user authorization.

Calibration

For regular function control with gas application, a calibration adapter is placed on the transmitter to ensure a safe and even gas supply.

Technical Data

CC 33 Transmitter

Sample gases:

Flammable gases and vapors, z.B. CH_4 , C_3H_8 , C_9H_{20} , $\text{C}_2\text{H}_6\text{O}$, ...

Measuring ranges:

0 .. 100 % LEL

Measuring principle:

Heat effect

Gas supply:

Diffusion or fumigation with calibration

Response time t_{90} :

≤ 10 s (CH_4), ≤ 12 s (C_3H_8)

Expected average life of the measuring cell:

5 years

Ambient temperature:

-20°C .. $+50^\circ\text{C}$

Humidity:

5 .. 90 % r. F.

Air pressure:

80 .. 120 kPa

Output:

4 .. 20 mA / RS485; Half-Duplex; max. 38400 Baud; Modbus-Protocol, Slide switch for 120 Ω terminator

Power supply:

24V DC (12 .. 30 Volt DC permissible)

Casing:

Die-cast aluminum or stainless steel

Mass:

1600g (Aluminium), 3130g (Steel)

Dimension:

165 x 145 x 130 mm

Housing protection:

IP66 gemäß IEC 60529



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