

Transmitter CC28 D

Monitoring flammable gases in Ex zones



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For monitoring combustible gases and vapors in hazardous areas, the CC28 D transmitter with display in combination with GfG's proven gas measurement controllers is a reliable and economical solution. Short response times ($t_{90} \leq 9$ s; depending on gas type and sensor) allow fast warning of gases such as methane or propane.

The design is ATEX certified. With ignition protection types "d" (flameproof enclosure) and "e" (increased safety), safe use in Ex zone 1 is possible. In addition, the CC28 D hardware complies with the European Functional Safety Standard DIN EN 61508-2: 2011 for many gases.

Communication and service

Signal transmission is based on the 4–20 mA industry standard. Smart Sensor technology enables fast and uncomplicated sensor replacement. Test gas can be added via calibration adapter. If the CC28 D has to be mounted in a difficult-to-access location, the optional RC2 remote control simplifies adjustment and service (one-man calibration).



CC28 D with display and pushbutton interface

Display and pushbuttons

The CC28 D transmitter has a 2.2 inch LC display and three pushbuttons. In normal operation, the display shows the measured value or information on faults or alarms. In addition, the operating parameters (sample gas, measuring range, limit values, etc.) can be called up via the pushbutton interface.

Reliable measurement and minimal operating costs

The chimney effect provides rapid detection of combustible gases and

vapors. This leaves crucial seconds to initiate countermeasures. The built-in temperature compensation ensures highest measurement accuracy. The low maintenance requirements and long sensor service life keep operating costs to a minimum. Sensor wear is significantly reduced by the automatic shutdown (from 112 % LEL).

Variants for different applications

The basic variant of the CC28 is sufficient for many applications. For special requirements, the CC28 is also available in additional versions:

- CC28** basic version for a wide range of flammable gases
- CC28 D** with display to indicate the current measured value
- CC28 DA** with display, LED warning lights and alarm buzzer

In combination with GfG's high-performance controllers, all versions of the CC28 are a good choice for a wide range of combustible gases to be monitored.

Overview of gases and SI levels:

Other gases on request.

» Acetone (C ₃ H ₆ O)	2	3	» Ethanol (C ₂ H ₆ O)	2	3	» Methanol (CH ₄ O)	2	3
» Acetylene (C ₂ H ₂)	2	3	» Ethyl acetate (C ₄ H ₈ O ₂)	2	3	» n-Nonane (C ₉ H ₂₀)	2	3
» Ammonia (NH ₃)	2	3	» Ethylene (C ₂ H ₄)	2	3	» Propane (C ₃ H ₈)	2	3
» n-Butane/Isobutane (C ₄ H ₁₀)	2	3	» Hexane (C ₆ H ₁₄)	2	3	» Propyne (C ₃ H ₄)	2	3
» Diethyl ether (C ₄ H ₁₀ O)	2	3	» Isopropanol (C ₃ H ₈ O)	2	3	» Propylene (C ₃ H ₆)	2	3
» Natural gas (HC-Gemisch)	2	3	» Carbon monoxide (CO)	2	3	» Toluene (C ₇ H ₈)	2	3
» Ethane (C ₂ H ₆)	2	3	» Methane (CH ₄)	2	3	» Hydrogen (H ₂)	2	3

CC28 D Technical data:

Measurement method:

Catalytic combustion (CC)

Measuring ranges:

0 to 100 % LEL

Gas supply:

0 to 4 vol.-%¹
Diffusion or gassing with flow adapter

Lifetime of the sensor:

5 years²

Response time:

$t_{90} \leq 9$ s³

Temperature:

-20 to +50 °C (Ex zone)

-25 to +55 °C

Humidity:

5 to 90 % r. h.

Air pressure:

80 to 120 kPa

Output signal:

4–20 mA

Power supply:

15 to 30 V DC

Housing:

Plastic

Protection class:

IP64

Dimensions:

100 x 168 x 55 mm (W x H x D)

Weight:

800 g

Approvals / Certifications:

Markings & type

of protection: Ⓜ II 2G Ex demb [ib] IIC T4 Gb

-20 °C ≤ Ta ≤ +50 °C

Functional

safety (SIL): DIN EN 61508-2: 2011⁴

¹ For ammonia only, ² Depending on operating conditions, ³ Depending on gas type and sensor, ⁴ Depending on sensor

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