

EC28 i / Di Transmitter

Intrinsically safe for toxic gases, oxygen and hydrogen





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Advanced technology

Where toxic gases, oxygen or hydrogen are to be monitored in areas with a particular risk of explosion, the intrinsically safe EC28 i or Di (with display) transmitter along with GfG's control units is a reliable and cost-effective solution. The power supply and transmission of the measured values are transmitted through two-wire cabling.

RC2 Remote Control (optional)

Ammonia and hydrogen are lighter than air. With the transmitter installed close to the ceiling, GfG can provide permanently connected cables with plugs for the remote control, which allow the user to do all adjustments without having to climb a ladder. In addition, one remote control can be used for several transmitters, which helps cut costs and increase efficiency.

The remote control display is always identical to that of the transmitter with display, making inspection, service, and calibration considerably simple. The remote control reads the current gas concentration and can be used as an external display.

« Intrinsically Safe For Explosive Areas. »

Reliable measurement, increased safety, and minimal cost of operation

Accurate sensors and integrated temperature compensation provide the highest measurement accuracy. Low maintenance requirements and the long sensor life reduce your cost of ownership.

Display and control operations

The EC28 Di (with display) transmitter features a 2.2 inch LC display and three control buttons. 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 retrieved using the operating keys.

Intrinsically safe operation

Due to its intrinsically safe build, the EC28 i / Di can be used even in areas with a particularly high risk of explosion. A Zener safety barrier has to be connected between the transmitter and the GfG controller to convert the supply voltage to 24 V DC. This prevents the power lines from igniting within the Ex zone. The intrinsic safety of the EC28 i / Di is ATEX-certified and makes it suitable for applications up to Ex zone 0.



EC28 Di with display.



The DIN-rail mountable Zener Barrier for Ex zone areas.

EC28 i / Di Transmitter



Feature summary

- » Concentration display at transmitter or at remote control
- » Intrinsically safe in Ex zone 0 areas / ATEX II 1G Ex ia IIC T4 Ga
- » Ex-proof visual and audible alarms
- » No need for expensive Ex-proof buzzer or wiring
- » Easy sensor replacement by means of plug-in smart sensors
- » Long sensor life
- » Permanent status and function display at transmitter
- » Adjustments without opening the casing using touch keys or remote control; easy handling even for hard-to-reach transmitters positions (e.g. at the ceiling)

Overview of Gases:

| | | | |
|--|--|--------------------------------------|---------------------------------------|
| » Ammonia (NH ₃) | » Hydrogen cyanide (HCN) | » Ozone (O ₃) | » Hydrogen sulfide (H ₂ S) |
| » Arsine (AsH ₃) | » Diborane (B ₂ H ₆) | » Phosgene (COCl ₂) | » Silane (SiH ₄) |
| » Bromine gas (Br ₂) | » Ethylene oxide (C ₂ H ₄ O) | » Phosphine (PH ₃) | » Nitrogen dioxide (NO ₂) |
| » Chlorine (Cl ₂) | » Hydrogen fluoride (HF) | » Oxygen (O ₂) | » Nitrogen monoxide (NO) |
| » Chlorine dioxide (ClO ₂) | » Carbon monoxide (CO) | » Sulphur dioxide (SO ₂) | » Hydrogen (H ₂) |
| » Hydrogen chloride (HCl) | | | |

Technical Data: EC28 i / Di

| | | |
|------------------------------------|---|--|
| Type designation: | EC28 i / EC28 Di | |
| Measuring principle: | Electrochemical (EC): for toxic gases and oxygen | |
| Gas supply: | Diffusion | |
| Response time: | Sensor dependent | |
| Expected sensor life: | Sensor dependent | |
| Power supply: | Operating voltage: 15-30 V DC 21 V to 27 V DC (using Zener barrier) | |
| Maximum supply current: | 25 mA | |
| Output signal: | For Ex zone: max. load 100 Ohm with Zener barrier Not Ex zone: max. load 200 Ohm without Zener barrier | |
| Environmental conditions: | Short-term storage temperature: -13 to +140 °F / -25 to +60 °C Recommended storage temperature: +32 to +86 °F / 0 to +30 °C Operational temperature (ambient): -4 to +122 °F / -20 to +50 °C Humidity: 5 to 90% r.h. Pressure: 80 to 120 kPa | |
| Housing: | Stability: Protect the casing against very hard impacts (> 4 J) Material: Anti-static plastic Dimensions: 7.63 x 3.94 x 17 in / 115 x 203 x 55 mm (W x H x D) (H with sensor: 7.59 in / 193 mm) Weight: 28.22 oz / 800 g (with display) Protection class: IP64 Cable connection: Cable gland(s) M16x1.5 max. core cross-section 3(4) x 1.5 mm ² Cable type and length: LIYCY 3(4) x 0.75 mm ² up to 500 m (up to 200 m with EC28 DA...) or LIYCY 3(4) x 1.5 mm ² up to 1,000 m | |
| Approvals / Certifications: | Markings and ignition protection types:  II 1G Ex ia IIC T4 Gb -20°C ≤ Ta ≤ +50°C  0158 BVS 04 ATEX E 132 X DIN EN 50270 | |
| EU Type Examination Certificate: | Interference emission: Type class I | |
| Electromagnetic compatibility: | Interference immunity: Type class II | |



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All specifications on this brochure are subject to technical changes due to further development.

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