



Fixed gas detection systems

smart  
**GasDetection**  
Technologies



## EC28 DAR Transmitter

# Display, Alarm and Relay for Safety in Ex Zones



 **MADE IN  
GERMANY**

[GfGsafety.com](http://GfGsafety.com)

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Display, Alarm and Relay for Safety in Ex Zones



Whenever toxic gases, oxygen or hydrogen are to be monitored and a display of the current measured value as well as local and external alarms are to be provided on site, the EC28 DAR transmitter combined with GfG's proven control units is the solution of choice. The ATEX-certified design means it can be used even in potentially explosive atmospheres.

## Communication and Service

Communication is carried out via a 4 to 20 mA signal. The Smart Sensor technology enables fast and uncomplicated replacement of the sensor. Adjustments can be made using the RC2 remote control (one-man calibration).



## Display, Control Buttons and Alarms

The EC28 DAR 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 called up via the operating keys. The EC28 DAR has highly visible red alarm LEDs, an integrated loud horn (90 dB) and an additional relay. This results in the possibility of triggering visual and acoustic alarms locally and simultaneously externally via optional alarm transmitters such as flashing lights, horns and information signs.

## Reliable Measurement & Minimal Operating Costs

The sensor and built-in temperature compensation ensure the highest measuring accuracy. The long sensor service life and low maintenance requirements ensure minimal operating costs.

## Variants for Every Application

The basic version of the EC28 is sufficient for many applications. For specific requirements, the EC28 is also available in a wide variety of versions:

- EC28** basic version for a wide range of electrochemical sensors
- EC28 D** with display for showing the current measured values
- EC28 DA** with display, bright LED warning lights and integrated alarm horn
- EC28 DAR** with display, alarm horn and relay for additional external alarm devices
- EC28 B** with Modbus interface
- EC28 DB** with Modbus interface and display
- EC28 DAB** with Modbus interface, display, bright LED lights and integrated alarm horn
- EC28 i** intrinsically safe
- EC28 Di** intrinsically safe and with display

Together with GfG's sophisticated controllers, all versions of the EC28 are the perfect choice for detecting a wide range of gases.

## Overview of gases:

» Arsine (AsH <sub>3</sub> )	» Ethylene oxide (C <sub>2</sub> H <sub>4</sub> O)	» Sulphur dioxide (SO <sub>2</sub> )
» Bromine gas (Br <sub>2</sub> )	» Carbon monoxide (CO)	» Hydrogen sulphide (H <sub>2</sub> S)
» Chlorine dioxide (ClO <sub>2</sub> )	» Ozone (O <sub>3</sub> )	» Nitrogen dioxide (NO <sub>2</sub> )
» Hydrogen cyanide (HCN)	» Phosgene (COCl <sub>2</sub> )	» Nitrogen monoxide (NO)
» Diborane (B <sub>2</sub> H <sub>6</sub> )	» Phosphine (PH <sub>3</sub> )	» Hydrogen (H <sub>2</sub> )

Other gases on request

## Technical Data EC28:

### Measuring principle:

Electrochemical (EC)

### Measuring ranges:

Depending on gas type and sensor

### Gas supply:

Diffusion or gassing per calibration adapter

### Expected service life of the measuring cell:

Depending on sensor

### Response Time:

Depending on gas type and sensor

### Temperature:

in Ex zones -20 to +50 °C

outside Ex zones -25 to +50 °C

### Humidity:

5 to 90 % r. h.

### Air pressure:

80 to 120 kPa

### Output signal:

RS-485

### Power supply:

18 to 30 V DC

### Housing:

Plastic, antistatic

### Protection class:

IP64

### Weight:

650 g

### Dimensions:

100 x 203 x 55 mm (W x H x D)

### Approvals / Certifications:

#### Markings & Type of Protection:

Ⓔ II 2G Ex eb mb [ib] IIC T4 Gb CⒺ158  
-20 °C ≤ Ta ≤ +50 °C

#### EU type examination certificate:

BVS 04 ATEX E 132 X

#### Functional Safety (SIL):

DIN EN 61508-2: 2011\*

#### EMC Testing:

DIN EN 50270: 2015

Interference emission: Type class I

Interference immunity: Type class II

\* sensor dependant

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