

### **EC28 DAR Transmitter**

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# Display, Alarm and Relay for Safety in Ex Zones







**GfGsafety.com** 

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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.



#### 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 €€0158 -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

#### **Overview of gases:**

» Arsine	(AsH₃)
» Bromin gas	$(Br_2)$
» Chlorine dioxide	(ClO <sub>2</sub> )
» Hydrogen cyanide	(HCN)
» Diborane	$(B_2H_6)$

Other gases on request

» Phosphine

 $(C_2H_4O)$ (CO)  $(O_3)$  $(COCI_2)$  $(PH_2)$ 

» Sulphur dioxide  $(SO_2)$ » Hydrogen sulphide  $(H_2S)$ (NO<sub>2</sub>) » Nitrogen dioxide » Nitrogen monoxide (NO) » Hydrogen  $(H_2)$ 



#### **GfG Nederland B.V.**

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» Ethvlene oxide » Carbon monoxide » Ozone » Phosgene