



# **EC28 Di Transmitter**

# Intrinsic Safety and Display for Toxic Gases, O<sub>2</sub> and H<sub>2</sub>



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

# **Intrinsically safe operation**

Due to its intrinsically safe build, the EC28 Di can be used even in areas with a particularly high risk of explosion. A safety barrier (SB1 or Zener barrier; optionally available) has to be connected between the transmitter and the programmable logic controller (PLC) 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 Di is ATEX-certified and makes it suitable for applications up to Ex zone 0.

# **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.



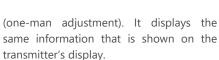
# **Display and Control Buttons**

The EC28 Di 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.

# **Remote Control RC2 (optional)**

GfG Gas Detection UK Ltd.

If the EC28 Di has to be mounted in a difficult-to-access location, the RC2 remote control facilitates servicing and adjustments



# **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	
EC28 D	of electrochemical sensors 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  $-20 \degree C \le Ta \le +50 \degree C$ 

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 <sub>2</sub> )
» Chlorine dioxide	(ClO <sub>2</sub> )
» Hydrogen cyanide	(HCN)
» Diborane	$(B_2H_6)$

Other gases on request

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- » Ethylene oxide » Ozone
- $(C_2H_4O)$ (CO) (O<sub>3</sub>)

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



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» Carbon monoxide » Phosgene

» Phosphine

(COCl<sub>2</sub>) (PH<sub>3</sub>)

» Hydrogen

