

# ZD 22 Transmitter

For monitoring of oxygen (O<sub>2</sub>)



- Long service life of the sensors
- Extremely fast response time:  $t_{90} < 5$  sec.
- Reduced pressure, humidity, or temperature influence
- No damage due to CO<sub>2</sub>
- Cost effective single-man adjustment
- Affordable operation costs

# ZD 22 Transmitter: Superior technology

## GfG Instrumentation

GfG Instrumentation is a global leader in the design and manufacture of gas detection products used to protect people, facilities and the environment. For over 50 years we have provided gas detection solutions for life critical health and safety applications. Our innovative and reliable gas warning and measurement systems provide the industry benchmark for accuracy, dependability, and cost-effective ownership.

## Superior technology

The ZD 22 Transmitter is specifically designed for long-term monitoring of oxygen concentrations. The integrated amperometric oxygen sensor is based on an electrochemical oxygen pumping cell made of zirconium dioxide. It is characterized by its robustness, a very high life expectancy and its outstanding long-term stability. The integrated thermostatic control of the sensor element achieves accurate measuring results in the entire temperature range, regardless of the

operating temperature. It can also be permanently used in environments with high concentrations of CO<sub>2</sub> or in dry atmosphere. Special equipment is available to protect the transmitter when used in harsh environments.

## Signal processing

The protective casing (IP 54) of the ZD 22 Transmitter contains the complete signal processing electronics and the failsafe routing of the measurement signal for the measuring computer, with extensive self-monitoring. The embedded software linearises the measuring signal and compensates for the effects of temperature. As a result, correct readings are transmitted even with weather related fluctuations in temperature. In addition, the transmitter can be connected to a gas measurement computer for the option of transmitting service, maintenance, and error messages.

## Universal signal transmission

The ZD 22 Transmitter transmits the signals either using an analog (0.2 1mA / 4-20 mA) current interface or a digital (RS485) Modbus interface. This permits the universal use of the transmitters in combination with GfG gas measurement computers and thus connection to a safety system, so that you and your systems will benefit from the best possible protection.

There are a variety of applications for the ZD 22 in regard to sensors, status LEDs and optional analog or digital interface, "Zero" key to calibrate the zero point, test socket and a potentiometer for the calibration of the sensor.



*ZD 22 Transmitter with display and no display*



*Graphical display with control buttons*

# Graphical display and easy operation

## Weather protection

A weatherproof housing not only protects transmitters against exposure to wind and weather, but also against contamination and excessive temperatures caused by direct sunlight.



ZD 22 with weather protection

## Optional colored graphic display

The clear graphic display of the ZD 22 is self explanatory and allows you to read the current status and other important information with ease. The display enables you to navigate effortlessly through the unit's concise menu and to change settings or even calibrate, depending on your user authorization. In the event of an alarm the display changes color from green to red. Two LEDs indicate the status.

## Operation buttons

The buttons on the transmitter allow the unit to be calibrated and settings to be adjusted through the menu as needed.

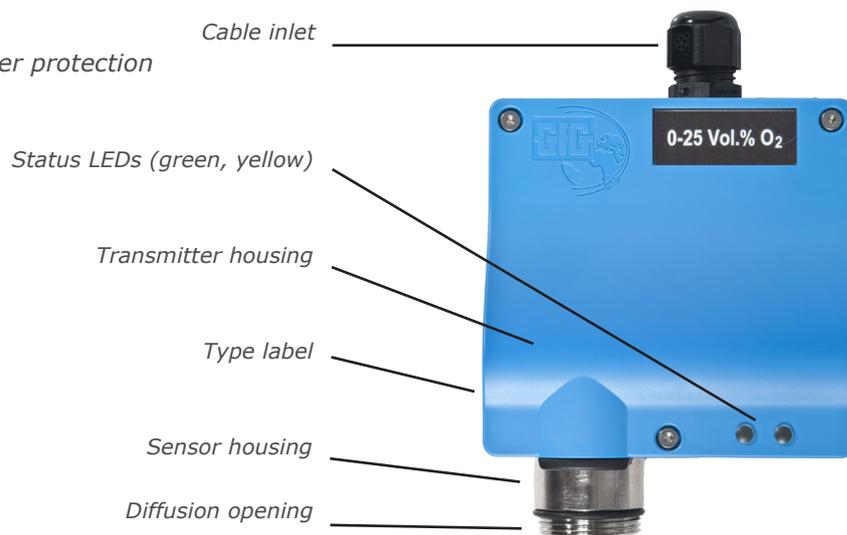
## Calibration adapter

In order to perform a calibration, a calibration adapter is used on the transmitter, which ensures a uniform and secure supply of gas.

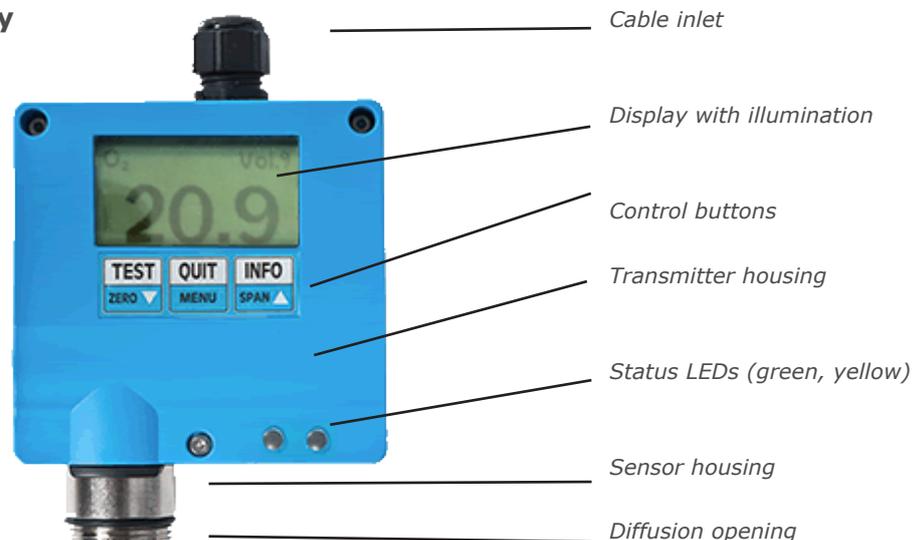
## Easy and convenient service

GfG offers full after-the-sale commissioning and field service support.

## ZD 22 without Display



## ZD 22 with Display



# Technical data

## ZD 22 Transmitter

**Gases:**

Oxygen (O<sub>2</sub>)

**Measuring Range:**

0..2 % vol.  
0..25 % vol.

**Measuring Accuracy:**

+/- 0.1 % vol. (repeatable)

**Detection Method:**

Power Limited sensor based on zirconium dioxide

**Measurement Principle:**

Zirconium Dioxide

**Gas Supply:**

Diffusion  
Flow rate with calibration adapter

**Response Time  $t_{90}$ :**

<5 seconds (0 at 25 % vol. O<sub>2</sub>)

**Expected Sensor Life:**

>5 years (depending on the sensor and environmental conditions)

**Ambient Temperature:**

-4 °F to +122 °F / -20 °C to +50 °C

**Humidity:**

5 to 90 % r.h. non-condensing

**Ambient Pressure:**

80-120 kPa

**Output Signal:**

0.2-1 mA / 4-20 mA / RS485 (Modbus)

**Power Supply:**

15 - 30 V DC

**Available Configurations:**

Display  
Blind (without display)

**Housing:**

Material: Plastic, IP 54

**Weight:**

6 oz. or 8 oz. / 175 g or 220 g (display version)

**Dimensions:**

3.8 x 5.5 x 2 in. / 96 x 140 x 49 mm  
(W x H x D)

**Housing Protection:**

IP 54



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Specifications subject to change without notification