

Transmitter ZD21

for Oxygen (O₂)



- Sensor lifetime 5 years
- Fast response: $t_{90} < 2$ seconds
- No influence from pressure, humidity or temperature
- No damage from carbon dioxide CO₂
- Easy on-site calibration
- Low cost of ownership

Worldwide Supplier Of Gas Detection Solutions



Transmitter ZD21 for Oxygen (O₂)

Zirconium dioxide - How does it work?

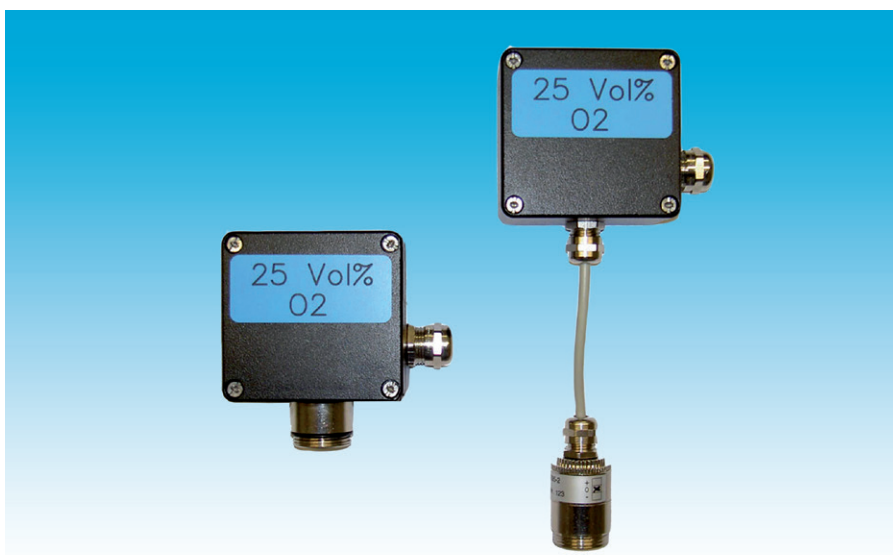
The transmitter ZD21 is a powerful transmitter for the detection of oxygen, using an amperometric sensors based on an electrochemical zirconium dioxide oxygen pump cell. The detection principle features a good longterm stability and selectivity. When a voltage is connected to the cell, the oxygen ions are pumped from the cathode to the anode. The cathode provides a gas diffusion barrier. Increasing the voltage leads to a saturation current that is equal to the oxygen concentration in the ambient air.



ZD21 with GMA81

The oxygen transmitter

The ZD21 is an „intelligent“ transmitter providing an extremely short response time of $t_{90} < 2$ seconds. The sensor is unaffected by pressure variations, temperature or



Transmitter ZD21 built-in and with external sensor

humidity and will not be damaged by carbon dioxide (CO₂). High-tech electronics allow easy operation and maintenance and also increases operational safety and accuracy.

Wide selection of detection ranges

A wide variety of detection ranges are available, from 0-0.1 % Vol O₂ up to 96 % Vol O₂.

All advantages at a glance

- Excellent stability
- Short response time
- High selectivity
- Temperature compensation
- Long sensor lifetime

Transmitter ZD21 Technical Data

Gas:

Oxygen (O₂)

Detection principle:

Zirconium dioxide

Detection range:

0 .. 25 % Vol.

Special detection range:

0 .. 1000 ppm
0 .. 2, 0 .. 96 % Vol.

Detection accuracy:

+/- 0.1 % Vol.
(repeatability)

Gas supply:

Diffusion
(flow measurement with adapter)

Response time (t₉₀):

< 2 seconds
(0 .. 21 Vol.-% O₂)

Temperature:

-25°C .. +50°C
(-30°C .. +110°C optional)

Humidity:

0 .. 99 % rel. humidity

Pressure:

920 .. 1080 hPa
(200 .. 5000 hPa optional)

Expected sensor life:

> 5 years
(depending on environment)

Output signal:

0.2 .. 1 mA / 4 .. 20 mA

Power supply:

10 .. 32 VDC/3W

Casing material:

Aluminium

Casing protection:

IP54

Cable gland:

3-wire / PG 11

Dimensions:

100 x 100 x 57 mm
(W x H x D)

Weight:

approx. 370 g



GfG Europe Ltd

710 Avenue West • Skyline 120 • Great Notley
Essex • CM77 7AA • United Kingdom
Tel: +44 (0)1376 342236 Fax: +44 (0)1376 341741
info@gfgeurope.com • www.gfgeurope.com