

# Transmitter IR 24

for carbon dioxide (CO<sub>2</sub>)

Edition 2  
2005

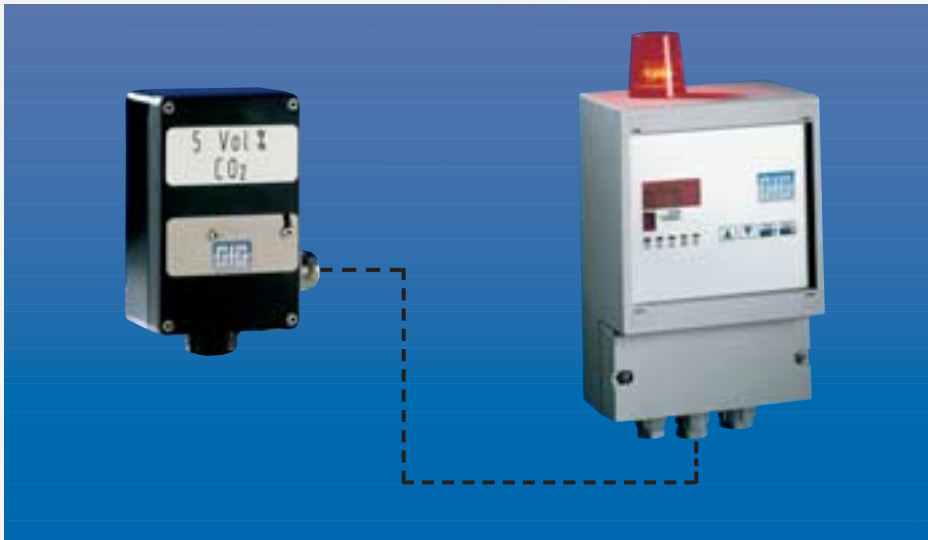


Transmitter with infrared (NDIR) sensor  
One-man calibration on-site  
Output 0.2 .. 1 mA or 4 .. 20 mA  
Long lifetime, low maintenance cost

**Worldwide Supplier of Gas Detection Solutions**



# Stationary monitoring of carbon dioxide (CO<sub>2</sub>)



## Transmitter

The transmitter is the key component of a gas monitoring system. This is why GfG gives top priority to their development and has been a leader in the industry for more than 40 years.

All GfG transmitters offer integrated electronic circuits for voltage stabilization, signal transmission and temperature compensation. This results in stable measurement signals, even in case of fluctuating temperature ranges.

## Robust technique for long lifetime

The IR 24 does not contain any moving parts, which may be subject to wear and tear. This ensures a long lifetime and low maintenance cost. Additional safety is provided by the permanent self-check and function test of the GMA controller. Sensor and electronics are protected in a solid enclosure from dust and water according to IP 54. This ensures that water cannot enter the detector, even in wet environments.

## Easy handling

Behind a service lid on the front of the IR 24 you find potentiometers and test connectors for easy adjustment of zero point and span. This allows one-man calibration on-site and reduces service down-time.

## Transmitter IR 24

- Selective NDIR detection principle
- Long sensor life for low follow-up cost
- Easy handling
- Signal output either 0.2 .. 1 mA or 4 .. 20mA
- Potentiometers for easy adjustment of zero point and span
- Connectors for test of output signal
- Solid aluminium casing, IP 54
- High reliability and repeatability of measurement results

## Calibration adapter



During periodic sensitivity checks, the transmitters are exposed to certain test gases. The calibration adapter, which is screwed on the transmitter, allows for a reliable and steady gas supply.

## Weather protection



The transmitters' protective casing is durable in harsh environments where there's dirt, rain and unstable temperatures.

## Sampling system



The sampling system supplies gases to the transmitter from inaccessible areas. There are special filters available to protect the transmitter from dust, condensation and corrosive compounds. The

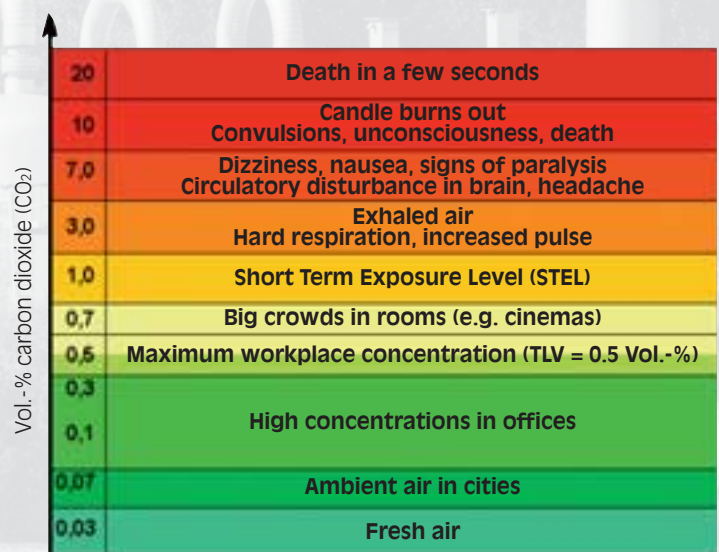
Ex-proof model of the sampling system can also be used for explosive gas mixtures.

## Tested and Calibrated

GfG transmitters are subject to 100% quality control. Installation is easy; since the transmitters are calibrated before shipment, the service engineer does a quick readjustment when putting them into operation.

Technical data	IR 24
Detection range	0 .. 5 Vol.-% other ranges on request
Detection principle	Infrared
Gas supply	Diffusion
Protection	IP54
Pressure	800 .. 1200 mbar
Expected sensor life	> 5 years
Response time $t_{90}$	< 25 seconds
Power supply	18 .. 26 V, 100 mA
Humidity	0 .. 99% r. h.
Output signal	0.2 .. 1 mA or 4 .. 20 mA
Dimensions (WxHxD)	100 x 145 x 60 mm
Ambient temperature	-20 .. +40°C
Cable gland	PG 11
Cable lengths to controller	< 200 m (3 x 0,75 mm <sup>2</sup> ) > 200 m (3 x 1,5 mm <sup>2</sup> )

## CO<sub>2</sub> concentrations and their effect on humans



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