

### Features

Measured Gas	: Carbon Dioxide (CO <sub>2</sub> )
Measuring Range	: 0 to 5 % (v/v)
Measuring Principle	: IR-Absorption
Operation Temperature	: -25 °C to +55 °C
Humidity	: 0 r. H. to 95 r. H. (Please avoid condensation)
Pressure	: 800 hPa to 1100 hPa
Response Time t <sub>90</sub>	: 20 s

### Mechanical Features

Dimensions	: 170 mm x 138 mm x 100 mm (Length x Width x Height)
Weight	: approx. 2.5 kg
Material	: Housing: cast aluminium, lacquered Sensor element: stainless steel
Enclosure Rating	: IP 65 (with the exception of gas inlet)
Installation	: Wall mounting, installation in pipes with adaptor (optional)
Storage Temperature	: -25 °C to +60 °C

### Electrical Features

Power Supply	: 24 ± 6 V DC
Power Consumption	: 80 mA / 2 W
Interface	: 4-20mA (linear), RS 485
Max. Load	: 500 Ω
Cable Gland	: M 16 x 1.5 (diameter of cable 6-12 mm)

### Conformity

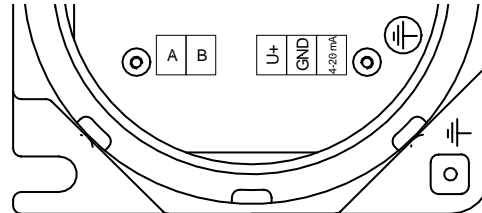
EC-Directives	: CE <sub>0158</sub> II 2G (suitable for Zone 1 and 2) 94/9/EC (ATEX), 89/336/EEC (EMC)
EC-Type Test	: BVS 04 ATEX E 066 X
Protection	: EEx d IIC T4 (-20 °C ≤ T <sub>amb</sub> ≤ 60 °C)
Measuring Function	: Designed according to EN 45544-1 to EN 45544-3

# Transmitter ExSens-D CO2-5-IR

Article-No.: 252013

## Installation

- Place : When monitoring working place concentrations installation at eye-level, otherwise near to the floor or close to sources of release.
- Position : sensor opening to be placed downwards
- Fixing : drilling jig as Download on our ExTox Homepage
- Terminal Assignment :



- |  |        |  |
|--|--------|--|
|  | A      | RS 485-Interface                         |
|  | B      | RS 485-Interface                         |
|  | U+     | Power supply 24 V                        |
|  | GND    | Ground (Power supply and current output) |
|  | 4-20mA | Current output 4-20mA                    |
- Line Length : max 1,000 m when using ExTox-Cable 6 x 0.8 mm (corresponds to a wire resistance of 9 Ω)
- Time of Stabilisation : approx. 1 min (90%), approx. 30 min (99%)
- Use**
- Description of the Measuring Principle : Many gases absorb IR-light at specific wave lengths. In case a cell with measured gas is lighted through by an IR-Source, the attenuation of light intensity measured at the output has to be considered as size for the measured gas concentration.
- Cross Sensitivity : none
- Special Influences :
  - Keep dust and condensate away.
  - Alarm levels from 0.5 % (v/v)
  - lower limit of measuring range 0.25 % (v/v) (acc. to EN 45544)
- Sensor Lifetime : typical: 2-5 years, depending on operation conditions
- Maintenance**
- Intervals : Minimum every half year.  
We recommend to keep EN 45544-4 and national regulations (or German BG Chemie-Information BGI 836)
- Test Gas (Zero Point) : Nitrogen, synthetic air  
(Remark: ambient air always contains approx. 0.04 Vol.-% CO2)
- Test Gas (Sensitivity) : Carbon Dioxide,  
Concentration in the middle of measuring range or slightly above highest alarm level
- Test Gas Application : 0.5 to 1 l/min by means of ExTox-Calibration Adapter for minimum 90 s  
Article No. 620040
- Sensor Element, Replacement**
- Further Information** : EN 45544-4, BG Chemie-Information BGI 836 (German version only)

This Data Sheet is at the same time a type specific supplement to the Instruction Manual ExTox Transmitter ExSens-D/Sens-D.

(Subject to technical change)