

Features

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|-------------------------------|---|
| Measured Gas | : Carbon Dioxide (CO ₂) |
| 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 ₉₀ | : 20 s |

Mechanical Features

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|---------------------|---|
| 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

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|-------------------|---|
| Power Supply | : 24 ± 6 V DC |
| Power Consumption | : 80 mA / 2 W |
| Interface | : 4-20mA (linear) |
| Max. Load | : 500 Ω |
| Cable Gland | : M 16 x 1.5 (diameter of cable 4-8.5 mm) |

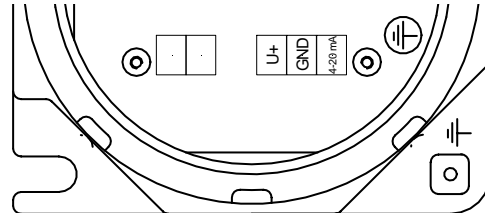
Conformity

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|--------------------|--|
| EC-Directives | : CE ₀₁₅₈ 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 _{amb} ≤ 60 °C) |
| Measuring Function | : Designed according to EN 45544-1 to EN 45544-3 |

Transmitter ExSens CO2-5-IR
 Article-No.: 251016

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 :



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 3 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/Sens*.

(Subject to technical change)