

Features

Measured Gas	: Flammable Gases and Vapours
Measuring Range	: 0 to 100 % LEL
Measuring Principle	: Catalytic Combustion
Operation Temperature	: -25 °C to +55 °C
Humidity	: 5 r. H. to 95 r. H. (Please avoid condensation)
Pressure	: 800 hPa to 1100 hPa
Response Time t_{90}	: 15 to 60 s, depending on gas


Mechanical Features

Dimensions	: 170 mm x 145 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	: 4-20 mA (linear), RS 485
Max. Load	: 500 Ω
Cable Gland	: M 16 x 1.5 (diameter of cable 6-12 mm)

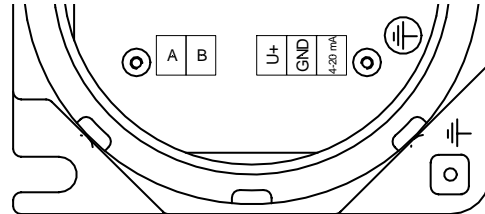
Conformity

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 61779-1 with EN 61779-4

Transmitter ExSens-D BG-WT
Article-No.: 252001

Installation

- Place : Close to potential sources of release, if known. Otherwise near to the floor (for gases heavier than air) or ceiling (for gases lighter than air, for example hydrogen, methane, ammonia)
- 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)
 4-20 mA Current output 4-20 mA

- 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. 20 min (99%)

Use

- Description of the Measuring Principle : The measured gas reaches two ceramic blended, electrically heated platinum coils. One of these coils is catalytically coated, so that flammable gases oxidize there with oxygen and cause a rise in temperature. This rise in temperature is evaluated and has to be considered as size for the measured gas concentration.

- Cross Sensitivity : Catalytic combustion sensors react upon every type of flammable gases and vapours. The sensitivity decreases to higher hydrocarbons, while the response time increases.

- Special Influences :
- Some substances, as silicones, halogenated hydrocarbons, lead-tetra-ethyl, sulphur compounds and organic phosphor compounds lead to partly irreversible losses of sensitivity (sensor contamination)
 - A linear measuring signal cannot be secured at oxygen concentrations < 10 % (v/v).
 - Alarm levels from 10 % LEL (with higher hydrocarbons from 20 % LEL)

- Sensor Lifetime : typical: 2-5 years, depending on operation conditions

Maintenance

- Intervals : Minimum every half year.
 We recommend to keep EN 50073 and national regulations (or German BG Chemie-Information BGI 518)

- Test Gas (Zero Point) : Ambient air (free from measured gas) or synthetic air
- Test Gas (Sensitivity) : 0.4 to 0.8 Vol.-% propane in air
- Test Gas Application : 0.5 to 1 l/min by means of *ExTox*-Calibration Adapter for minimum 60 s
- Sensor Element, Replacement Article No. 620000

- Further Information : EN 50073, BG Chemie-Information BGI 518 (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)