

Features

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|------------------------|--|
| Measured Gas | : Flammable Gases |
| Measuring Range | : 0 to 100 % LEL |
| Measuring Principle | : Semiconductor |
| Operation Temperature | : -20 °C to +50 °C |
| Humidity | : 10 r. H. to 90 r. H. (Please avoid condensation) |
| Pressure | : 900 hPa to 1100 hPa |
| Response Time t_{90} | : 30 to 60 s, depending on gas |

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 | : 4-20 mA (linear) |
| Max. Load | : 500 Ω |
| Cable Gland | : M 16 x 1.5 (diameter of cable 4-8.5 mm) |

Conformity

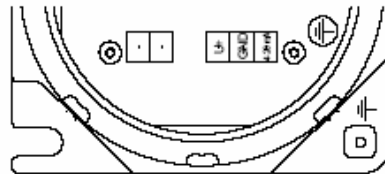
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|--------------------|--|
| EC-Directives | : CE ₀₁₅₀ Ⓜ II 2G (suitable for Zone 1 and 2) 94/9/EC (ATEX), 89/336/EEC (EMC) |
| EC-Type Test | : BVS 04 ATEX E 066 X |
| Protection | : EEx d IIC T4 (-20 °C ≤ T _{amb} ≤ 60 °C) |
| Measuring Function | : Designed according to EN 61779-1 with EN 61779-4 |

Transmitter ExSens BG-HL

Article-No.: 251004

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 :



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 3 x 0.8 mm (corresponds to a wire resistance of 9 Ω)
- Time of Stabilisation : approx. 10 min (90%), approx. 120 min (99%)

Use

- Description of the Measuring Principle : A chemisorption of the measured gas takes place at the heated surface of a semi-conducting metal oxide. With that the metal oxide layer changes its electrical conductivity depending on the concentration of measured gas

- Cross Sensitivity :
 - Semiconductor sensors react upon every type of flammable gases and vapours as well as upon other gases, such as for example some refrigerants. The relative sensitivity varies depending on gas type.
 - Hydrogen leads to a clear measuring signal even at ppm-concentrations.
 - Reducing gases, such as NO₂ could cause negative measuring signals.

- Special Influences :
 - Considerable changes of humidity or of the oxygen content should be avoided.
 - Alarm levels from 10 to approx. 40 % 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) : Concentration in the middle of measuring range or slightly above highest alarm level

- Test Gas Application : 0.4 to 0.8 Vol.-% propane in air (adjustment to be clarified with ExTox)

- Test Gas Application : 0.5 to 1 l/min by means of ExTox-Calibration Adapter for minimum 90 s

- Sensor Element, Replacement : Article No. 620023

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

(Subject to technical change)