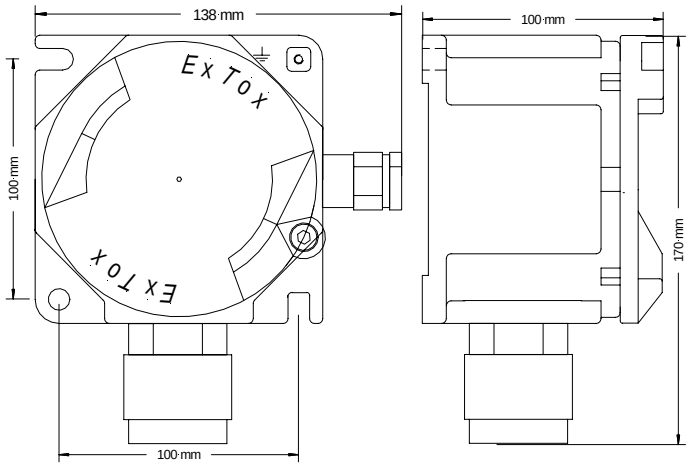
Transmitter ExSens BG-IR
Article-No.: 251005

ExTox Gasmess-Systeme GmbH



Features		
Measured Gas	:	Flammable Gases
Measuring Range	:	0 to 100 % LEL
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		
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	:	4-20 mA (linear)
Max. Load	:	500 Ω
Cable Gland	:	M 16 x 1.5 (diameter of cable 4-8.5 mm)
Conformity		
EC-Directives	:	CE$_{0158}$ Ex 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

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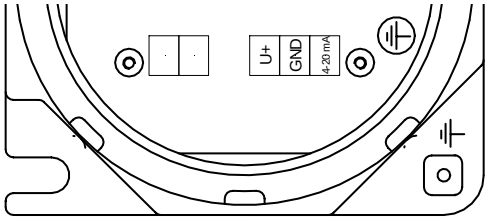
Installation

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. 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	:	▪ The IR-Sensor reacts upon all hydrocarbons. There might be various differences in relative sensitivity depending on substance. ▪ Hydrogen does not supply with a measuring signal due to the principle.
Special Influences	:	▪ Keep dust and condensate away. ▪ Alarm levels from 10 % 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)	:	Nitrogen, synthetic air
Test Gas (Sensitivity)	:	0.4 to 0.8 Vol.-% propane in air 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 60 s
Sensor Element, Replacement		Article No. 620001
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/Sens.*

(Subject to technical change)