

Features

Measured Gas	: Cooling Agents, for example R 123A, R 404A, R 407C,...
Measuring Range	: 0 to 1 % (v/v)
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

Dimensions	: 170 mm x 138 mm x 100 mm (Length x Width x Height)
Weight	: approx. 2.5 kg
Material	: Housing: 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)
Max. Load	: 500 Ω
Cable Gland	: M 16 x 1.5 (diameter of cable 4-8.5 mm)

Conformity

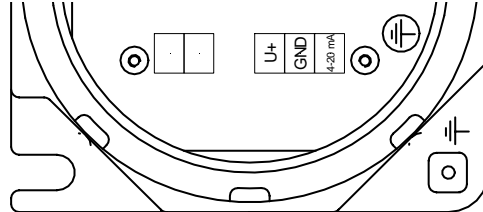
EC-Directives	: CE ₀₁₅₈ II 2G (suitable for Zone 1 and 2) 94/9/EC (ATEX), 89/336/EEC (EMC)
EC-Type Test	: BVS 04 ATEX E 066 X
Protection	: EEx d IIC T4 (-20 °C ≤ T _{amb} ≤ 60 °C)
Measuring Function	: Designed according to EN 61779-1 with EN 61779-4

Transmitter ExSens KM-1-HL

Article-No.: 251018

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)
- 4-20mA : 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. 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 0.1 % (v/v)
- 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) :
- Measured gas, concentration in the middle of measuring range or slightly above highest alarm level
 - Calibration with replacement gas eventually possible, please contact *ExTox*!
- Test Gas Application : 0.5 to 1 l/min by means of *ExTox*-Calibration Adapter for minimum 90 s
Article No. 620048
- Sensor Element, Replacement**
- 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)