

Features

Measured Gas	: Oxygen (O ₂)
Measuring Range	: 0 to 25 % (v/v)
Measuring Principle	: Electrochemical Cell
Operation Temperature	: +5 °C to +40 °C
Humidity	: 10 r. H. to 90 r. H. (Please avoid condensation)
Pressure	: 900 hPa to 1100 hPa
Response Time t ₉₀	: 30 s

Mechanical Features

Dimensions	: 198 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	: -20 °C to +50 °C

Electrical Features

Power Supply	: 24 ± 6 V DC
Power Consumption	: 40 mA / 1 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

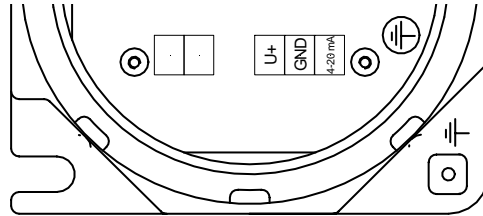
EC-Directives	: CE ₀₁₅₈ Ⓢ II 2G (suitable for Zone 1 and 2) 94/9/EC (ATEX), 89/336/EEC (EMC)
EC-Type Test Protection	: BVS 04 ATEX E 066 X EEx d IIC T6 (-20 °C ≤ T _{amb} ≤ 43 °C) EEx d IIC T5 (-20 °C ≤ T _{amb} ≤ 58 °C) EEx d IIC T4 (-20 °C ≤ T _{amb} ≤ 70 °C)
Measuring Function	: Designed according to EN 50104

Transmitter ExSens O2-25-KE

Article-No.: 251012

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)
- 4-20 mA Current output 4-20 mA
- Line Length : max 2,000 m when using ExTox-Cable 3 x 0.8 mm (corresponds to a wire resistance of 18 Ω)
- Time of Stabilisation : approx. 1 min (90%), approx. 30 min (99%)
- Use**
- Description of the Measuring Principle : The sensor consists of two or more electrodes which are arranged in an electrolyte. One of these electrodes is accessible for the measured gas. A redox reaction at the electrode takes place. This causes an electrical current which is proportional to the concentration in the measured gas.
- Cross Sensitivity : none
- Special Influences :
- Longer operation in very dry atmosphere should be avoided.
 - Sensor opening must be placed downwards.
 - Indication depends on partial pressure that means fluctuations of the ambient pressure lead to changes.
 - High concentrations of ammonia in the measured gas (> 100 ppm NH₃) could reduce lifetime of the sensor element.
 - Ozone (O₃) could influence the sensibility of the sensor element and could damage sensor materials.
 - Alarm levels from approx. 2 % (v/v)
- Sensor Lifetime : typical: 5 years (on operation in 20.9 % (v/v) O₂), on lower concentrations even longer, additionally 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) as well as EN 45544-4 and national regulations (or German BG Chemie-Information BGI 836)
- Test Gas (Zero Point) : Nitrogen
- Test Gas (Sensitivity) : Ambient air (20.9 % (v/v) oxygen)
- Test Gas Application : 0.5 to 1 l/min by means of ExTox-Calibration Adapter for minimum 90 s
- Sensor Element, Replacement**
- Article No. 620032
- Further Information** : EN 50073, BG Chemie-Information BGI 518 (German version only)
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)