



- Description:
- Transmitter for flammable gases, toxic gases or oxygen (see *ExTox Gas- / Transmitter List*)
  - 4...20 mA-output with linear curve
  - For industrial and commercial applications
  - Application in explosion hazardous areas of Zones 1 and 2

**Features**

- Measured Gas: *ExTox Gas- / Transmitter List*
- Measuring Range: *ExTox Gas- / Transmitter List*. On demand the standard measuring range can factory sided be diversified in range 50 to 200 %. Bigger deviations if applicable on demand.
- Measuring Principles:
- ExSens ...-WT: Catalytic Combustion
  - ExSens ...-IR: Absorption
  - ExSens ...-EC: Electrochemical Cell
  - ExSens ...-KE: Electrochemical Oxygen Cell
  - ExSens ...-HL: Metal oxide-semiconductor
- Operation Mode: Diffusion (Operation with aspirated flow possible, e. g. in *ExTox IMC*)
- Response Time: *ExTox Gas- / Transmitter List*

**Range of Application**

- Temperature: *ExTox Gas- / Transmitter List*
- Humidity: 10 r. H to 90 r. H (please avoid condensation)
- Pressure: 800 hPa to 1100 hPa
- Deviations:
- Changes on climatic conditions can be done with the usual rate for atmospheric deviations. Very quick changes, such as for example shock pressures, can cause bigger measuring deviations for short time.
  - Extension of climatic ranges is in particular cases possible acc. to prior agreement with *ExTox*.

**Conformity**

- EC-Directives:
- 2014/30/EU (EMC)
  - 2014/34/EU (ATEX)  $\text{CE}_{0158}$  II 2G (suitable for Zone 1 and 2)
- Type Test:
- BVS 04 ATEX E 066 X (EN 60079-0 and EN 60079-1) with 1<sup>st</sup> and 2<sup>nd</sup> amendment
  - BAM 07 ATEX 0301 X (EN 60079-29-1) (ExSens-I BG-WT, Measured gases: Methane to Hexane)
- Protection:
- ExSens ...-WT/-IR/-HL: Ex db IIC T4 (-20 °C ≤ T<sub>amb</sub> ≤ 60 °C) Gb
  - ExSens ...-EC: Ex db IIC T5 (-20 °C ≤ T<sub>amb</sub> ≤ 49 °C) Gb  
Ex db IIC T4 (-20 °C ≤ T<sub>amb</sub> ≤ 70 °C) Gb
  - ExSens ...-KE: Ex db IIC T6 (-20 °C ≤ T<sub>amb</sub> ≤ 43 °C) Gb  
Ex db IIC T5 (-20 °C ≤ T<sub>amb</sub> ≤ 58 °C) Gb  
Ex db IIC T4 (-20 °C ≤ T<sub>amb</sub> ≤ 70 °C) Gb
- Measuring Function:
- Designed acc. to EN 60079-29-1 (flammable gases)  
EN 45544-1 to DIN EN 45544-3 (toxic gases)  
EN 50104 (oxygen)
  - ExSens ...-HL: Restrictions due to measuring principle exist as far as requirements of standards regarding linearity are concerned and on climatic influences. This has to be considered for designing alarm concept.

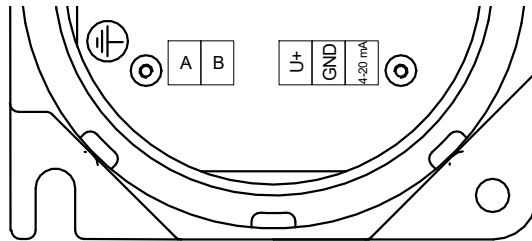
# Transmitter Series ExSens

## Mechanical Features

Dimensions: (Length x Width x Height)	<ul style="list-style-type: none"><li>ExSens ...-WT/-IR/-HL: 170 mm x 138 (145)mm x 100 mm</li><li>ExSens ...-EC: 180 mm x 138 (145)mm x 100 mm</li><li>ExSens ...-KE: 198 mm x 138 (145)mm x 100 mm</li></ul>
Weight:	ca. 2.5 kg
Material:	<ul style="list-style-type: none"><li>Housing: cast aluminium, lacquered</li><li>Sensor block: stainless steel</li></ul>
Enclosure Rating:	IP 65 (except gas inlet)
Installation:	<ul style="list-style-type: none"><li>Wall mounting</li><li>Installation on ceiling by means of angle (as option)</li><li>Installation in pipes by means of adapter (as option)</li></ul>
Storage Temperature:	-25 °C to +60 °C

## Electrical Features

Power Supply	24 ± 6 V DC										
Power Consumption:	<ul style="list-style-type: none"><li>ExSens ...-WT/-IR/-HL: 80 mA / 2 W</li><li>ExSens ...-EC/-KE: 40 mA / 1 W</li></ul>										
Interface:	<ul style="list-style-type: none"><li>4...20 mA, active (other current and voltage ranges on demand)</li><li>linear calibration curve</li><li>Option: RS 485 for remote adjustment (Type ExSens-I)</li></ul>										
Max. Load:	500 Ω										
Cable Gland:	M 16 x 1.5 (diameter of cable 4 to 8.5 mm) (ExSens-I: M 16 x 1.5, diameter of cable 6 to 12 mm)										
Terminal Assignment:	<table><tr><td>U+</td><td>Power Supply 24 V</td></tr><tr><td>GND</td><td>Ground (power supply and current output)</td></tr><tr><td>4-20mA</td><td>Current Output 4...20 mA</td></tr><tr><td>A</td><td>RS 485-Interface, only Type ExSens-I</td></tr><tr><td>B</td><td>RS 485-Interface, only Type ExSens-I</td></tr></table>	U+	Power Supply 24 V	GND	Ground (power supply and current output)	4-20mA	Current Output 4...20 mA	A	RS 485-Interface, only Type ExSens-I	B	RS 485-Interface, only Type ExSens-I
U+	Power Supply 24 V										
GND	Ground (power supply and current output)										
4-20mA	Current Output 4...20 mA										
A	RS 485-Interface, only Type ExSens-I										
B	RS 485-Interface, only Type ExSens-I										



Line:	ExTox-Cable 4 x 0.8 mm or similar (ExSens-I: ExTox-Cable 6 x 0.8 mm or similar)
Line Length:	Depending on resistance of used cable; when using ExTox-Cable (wire resistance of 9 Ω/km) <ul style="list-style-type: none"><li>Sens ...-WT/-IR/-HL: maximum 1000 m</li><li>Sens ...-EC/-KE: maximum 2000 m</li></ul>

(Subject to Technical Changes)