

Tetrahydrothiophene (THT) Gas Sensor



# Product Data Sheet

## Key Features & Benefits:

- Amperometric 3 electrode sensor cell
- Fast response
- High reliability
- Good long term stability

## **Technical Specifications**

### MEASUREMENT

Operating Principle<br/>Measurement Range<br/>Filter3-electrode electrochemical<br/>0-50 mg/m³<br/>H2S<br/>SensitivitySensitivity<br/>Response Time (T30)140 ± 50 nA/mg/m³<br/>< 30 s calculated from 2 min exposure time (at 33 Ohm)<br/>< ± 200 nA<br/>LinearityBaseline Offset (clean air)<br/>Linearity< ± 200 nA<br/>< 5% of full scale</th>

### ELECTRICAL

Recommended Load Resistor33 ΩBias Voltage+ 150 mV

### MECHANICAL

Housing Material<br/>WeightABSWeight4.2 g (Classic)6.2 g (4 Series)16.8 g (7 Series)sensor front pointing<br/>downwards or sidewards

### ENVIRONMENTAL

Typical ApplicationsMonitoring of odorants in natural gas<br/>applicationsOperating Temperature Range<br/>Operating Pressure Range<br/>Operating Humidity RangeMonitoring of odorants in natural gas<br/>applicationsTypical Applications-10°C to +40°CAtmospheric ± 10%Atmospheric ± 10%Typical Applications15% to 90% r.h. non-condensing

#### **INTRINSIC SAFETY DATA**

 Maximum at 50 mg/m³
 9.5 μA

 Maximum o/c Voltage
 < 500 mV</td>

 Maximum s/c Current
 50 μA

### LIFETIME

Long Term Output Drift< 10% per 6 months</th>Expected Operating Life> 18 months in airStorage Life8 weeks in sealed containerStandard Warranty12 months from date of despatch

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4 Series



## Part Numbers

ТНТ	Part Number
Classic	2345-034-11069
4-Series	2345-034-14049
7-Series	2345-034-17079

Orders should be placed through Sensoric Gas Sensors in Bonn.

### **IMPORTANT NOTE:**

Connection should be made via PCB sockets only. Soldering to pins will render your warranty void.

All performance data is based on conditions at 20°C, 50% r.h. and ambient pressure using Sensoric recommended circuitry. For information on sensor performance under other conditions contact Sensoric.



The Right Sensor Can Save A Life

<u>Available in:</u>



# **Product** Data Sheet



### **Product Dimensions**

All dimensions in mm

- S Sensing
- C Counter
- R Reference
- NC not connected

Plugs and customized adaptations available on request

Please contact sale\_europe@citytech.com for detailed information

Important Note: Connection should be made via PCB sockets only. Soldering to the pins will render your waaranty void

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#### **Poisoning**

Sensoric cells are designed for operation in a wide range of environments and harsh conditions. However, it is important that exposure to high concentrations of solvent vapours is avoided, both during storage, fitting into instruments, and operation.

When using sensors with printed circuit boards (PCBs), degreasing agents should be used before the sensor is fitted. Do not glue directly on or near the Sensoric cells as the solvent may cause crazing of the plastic.

#### SAFETY NOTE

This sensor is designed to be used in safety critical applications. To ensure that the sensor and/or instrument in which it is used, are operating properly, it is a requirement that the function of the device is confirmed by exposure to target gas (bump check) before each use of the sensor and/or instrument. Failure to carry out such tests may jeopardize the safety of people and property.

Every effort has been made to ensure the accuracy of this document at the time of printing. In accordance with the company's policy of continued product improvement Sensoric Gas Sensors - a Division of Life Saftey Germany GmbH reserves the right to make product changes without notice. No liability is accepted for any consequential losses, injury or damage resulting from the use of this document or from any omissions or errors herein. The data is given for guidance only. It does not constitute a specification or an offer for sale. The products are always subject to a programme of improvement and testing which may result in some changes in the characteristics quoted. As the products may be used by the client in circumstances beyond the knowledge and control of Sensoric Gas Sensors - a Division of Life Safety Germany GmbH, we cannot give any warranty as to the relevance of these particulars to an application. It is the clients' responsibility to carry out the necessary tests to determine the usefulness of the products and to ensure their safety of operation in a particular application.

Performance characteristics on this data sheet outline the performance of newly supplied sensors. Output signal can drift below the lower limit over time.

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