Silane

SensoriC SiH4 3E 50

Rev. 09/2006

SensoriC Sensors are designed and manufactured in
Justus-von-Liebig-Str. 22, D- 53121 Bonn, Germany
Tel: ++49 (0) 228 52 66 40 Fax: ++49 (0) 228 5266439

SensoriC SiH4 3E 50

FEATURES

Amperometric 3 electrode sensor cell
High resolution
0 voltage biased operation
fixed organic gel electrolyte

TYPICAL APPLICATIONS

Portable & fixed point applications
Semiconductor Industry

PART NUMBER INFORMATION

MINI	0941-031-30009
SENSORIC CLASSIC	0941-031-30069
CTL 4 series adaptation	0941-031-30049
CTL 7 series adaptation	0941-031-30079

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TECHNICAL SPECIFICATIONS

Measuring Range	0–50 ppm SiH_4; 0-2 ppm GeH_4
Sensitivity Range	130 nA/ppm ± 70 nA/ppm
Zero Current at 20°C	< ± 25 nA
Resolution at 20°C	< 0.05 ppm
Bias Potential	0 mV
Linearity	< 10% full scale
Response Time at 20°C	
t50	< 10 s calculated from 2 min. exposure time
t90	< 60 s calculated from 2 min. exposure time
Long Term Sensitivity Drift	<5% per 6 months
Operation Conditions	
Temperature Range	-20°C to +40°C
Humidity Range	20–95% r.H., non–condensing
Effect of Humidity	an abrupt change of rel. Humidity will cause a short term drift in zero reading
Sensor Life Expectancy	> 18 months
Warranty	12 months

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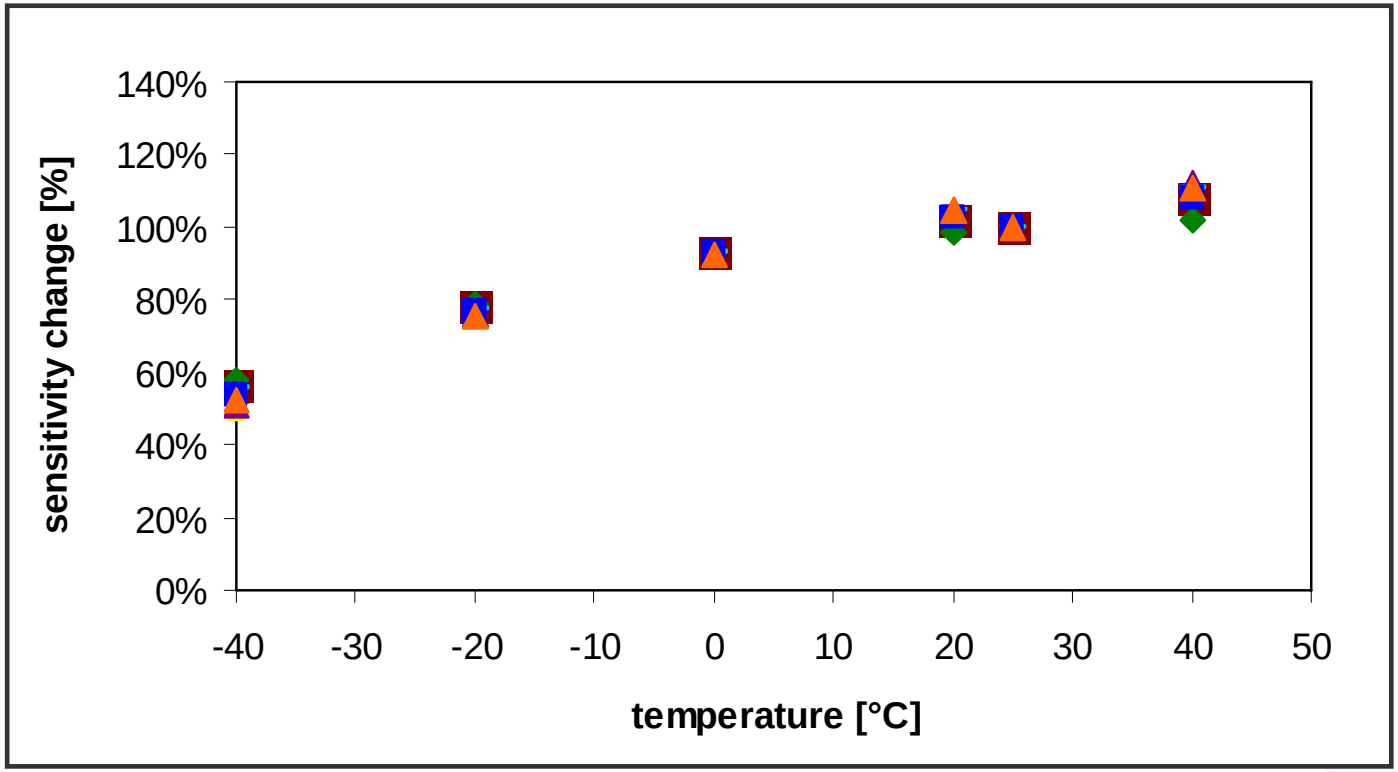
OUTPUT vs. TEMPERATURE:



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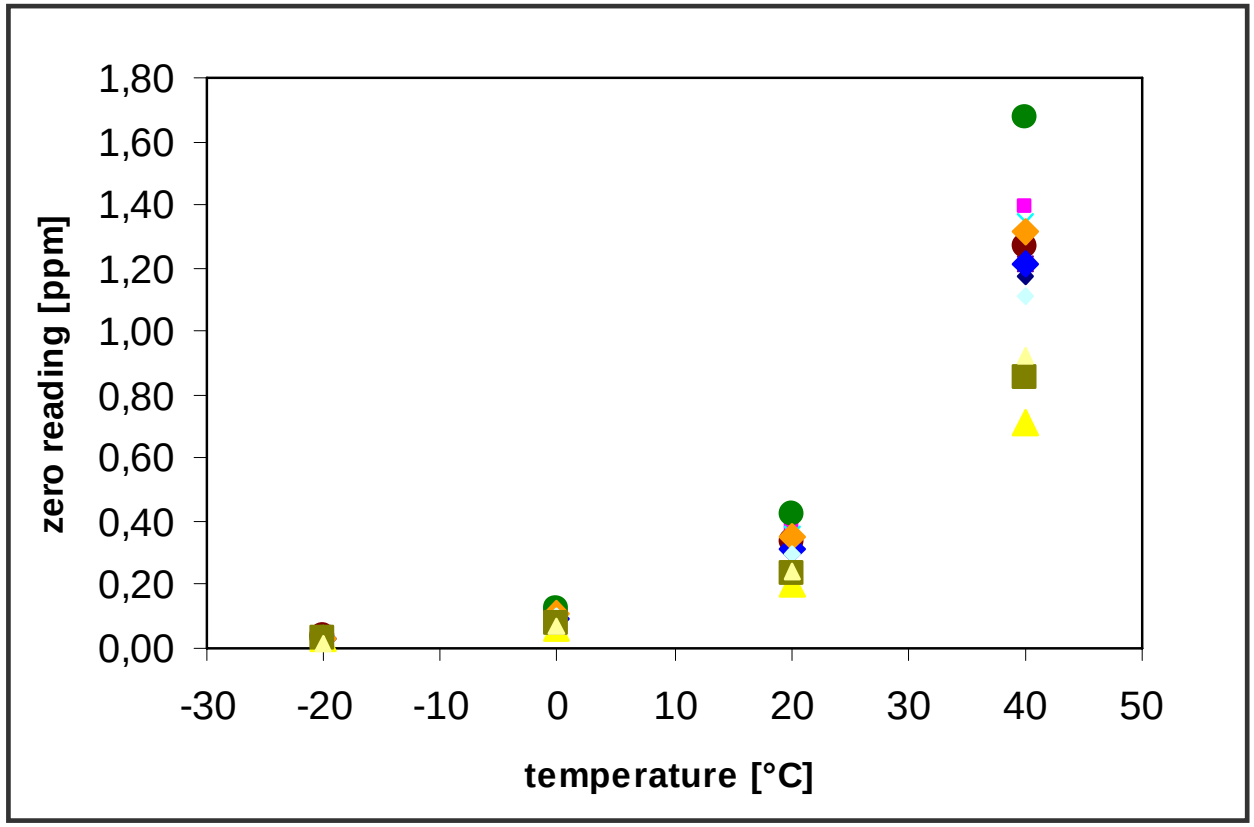
ZERO READING vs. TEMPERATURE:



SensoriC deems the data contained herein as factual, and the opinions expressed are those of qualified experts based on the results of tests conducted. The above data can not be used as a warranty provision or representation for which SensoriC assumes legal responsibility. The data are offered solely for consideration, investigation and verification. Any use of this information is subject to federal, state and local laws and regulations.

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CROSS SENSITIVITIES AT 20°C

Gas	Concentration	Reading [ppm]
Ammonia	100 ppm	0
Arsine	0.2 ppm	0.2
Carbon Dioxide	5000 ppm	0
Carbon Monoxide	100 ppm	0
Chlorine	1 ppm	0
Diborane	0.25 ppm	0.12
Hydrocarbons	% range	0
Hydrochloric Acid	5 ppm	0[1]
Hydrogen	3000 ppm	0[2]
Hydrogen Cyanide	20 ppm	0.5
Hydrogen Sulfide	2 ppm	8
Isopropanol	200 ppm	0
Nitrogen	100 %	0
Phosphine	0.1 ppm	0.13
Sulfur Dioxide	20 ppm	4
Nitrogen Dioxide	10 ppm	-2

1) At short gas exposure in minute range (dose ~100ppm min.)
2) Interference expected at >4% H2

Notes:
1. Interference factors may differ from sensor to sensor and with life time. It is not adviseable to calibrate with interference gases.
2. This table does not claim to be complete. The sensor might also be sensitive to other gases.

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