

Hydrogen Chloride

SensoriC HCl 3E 30



Rev. 09/2006

SensoriC HCI 3E 30

FEATURES

Amperometric 3 electrode sensor cell
Short warm up time
Good zero stability
Fast response
1:1 cross interference to HBr

TYPICAL APPLICATIONS

TLV-Monitoring
Leak detection
Pharmaceutical industry

PART NUMBER INFORMATION

MINI	1139-034-30009
SENSORIC CLASSIC	1139-034-30069
CTL 4 series adaptation	1139-034-30049
CTL 7 series adaptation	1139-034-30079

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TECHNICAL SPECIFICATIONS

Measuring Range	0–30 ppm
Sensitivity Range	140 nA/ppm \pm 60 nA/ ppm
Zero Current at 20°C	< \pm 100 nA
Resolution at 20°C	< 0.7 ppm
Bias Potential	200 mV
Linearity	< 5% full scale
Response Time at 20°C	
t50	< 30 s calculated from 4 min. exposure time
t90	< 70 s calculated from 4 min. exposure time
Long Term Sensitivity Drift	< 3% per month
Operation Conditions	
Temperature Range	-20°C to +40°C
Humidity Range	15–95% r.H., non–condensing
Effect of Humidity	high humidity causes HCl absorption
Sensor Life Expectancy	> 24 months
Warranty	12 months

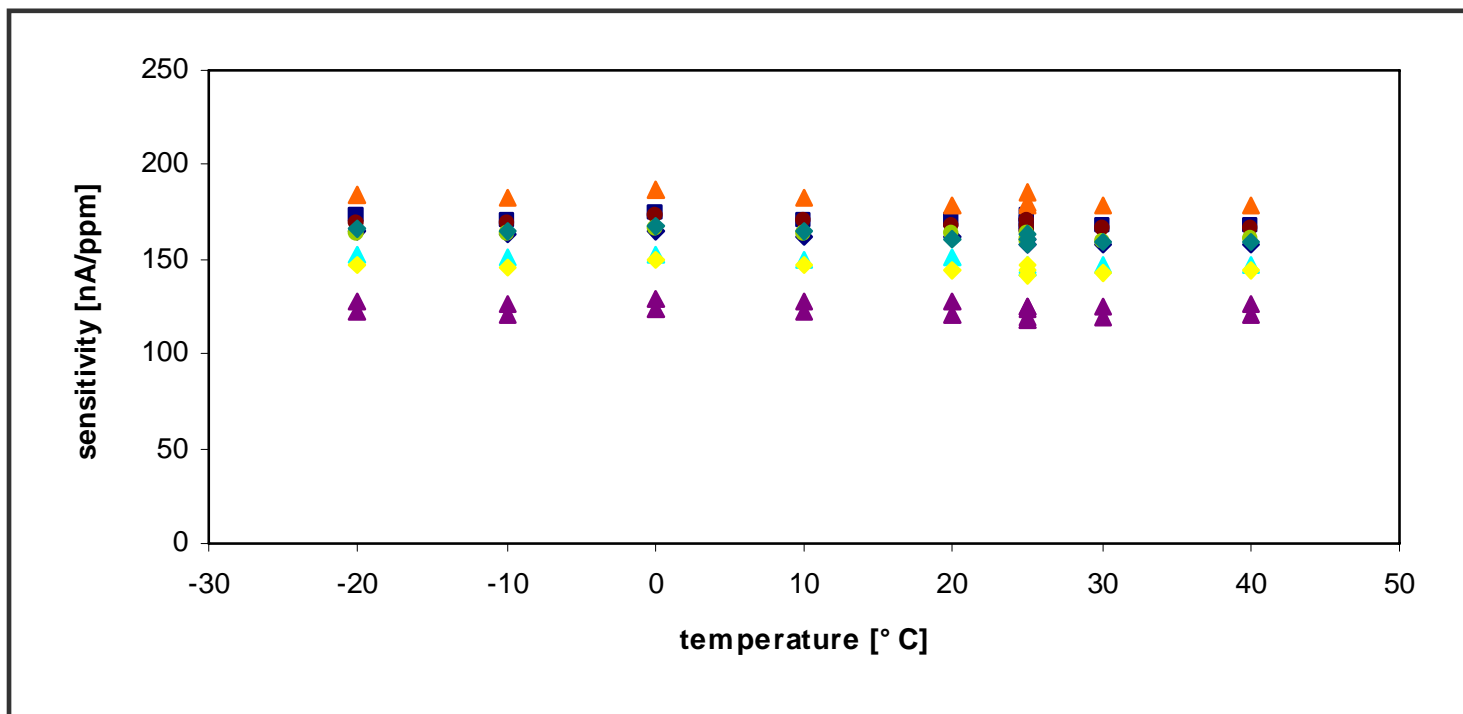
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Temperature dependence of output signal:



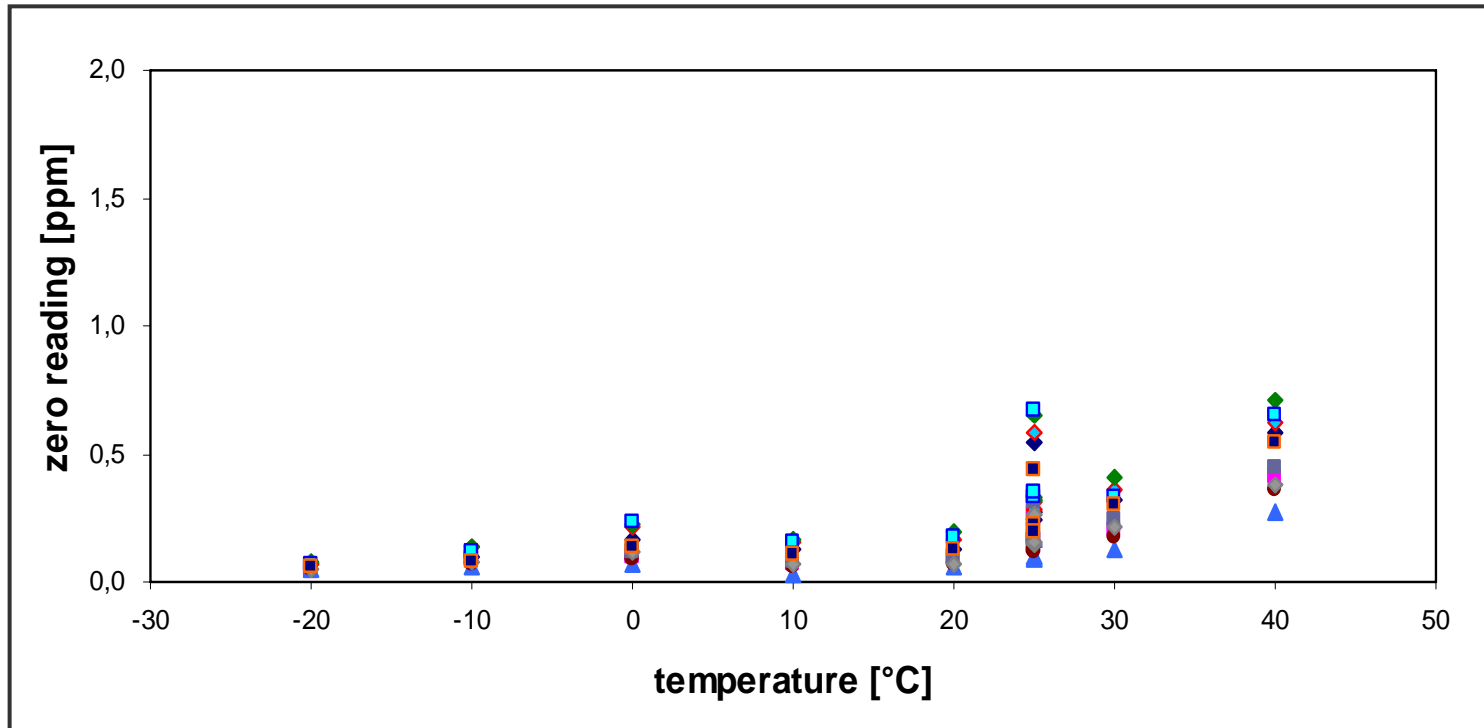
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Temperature dependence of zero reading:



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CROSS SENSITIVITIES AT 20°C

Gas	Concentration	Reading [ppm]
Alcohols	1000 ppm	0
Ammonia	100 ppm	0.1
Arsine	0.2 ppm	0.7
Carbon Dioxide	5000 ppm	0
Carbon Monoxide	100 ppm	0
Chlorine	5 ppm	0.3
Hydrocarbons	% range	0
Hydrogen	10000 range	0
Hydrogen Cyanide	20 range	7
Hydrogen Sulfide	20 range	13
Nitric Oxide	100 range	45
Nitrogen	100 %	0
Nitrogen Dioxide	10 ppm	0.3
Phosphine	0.1 ppm	0.3
Sulfur Dioxide	20 ppm	8

Notes:

1. Interference factors may differ from sensor to sensor and with life time. It is not advisable 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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