

# Chlorine

## SensoriC Cl2 3E 50



Rev. 09/2006

SensoriC Sensors are designed and manufactured in  
Justus-von-Liebig-Str. 22, D- 53121 Bonn, Germany

## SensoriC CI2 3E 50

### FEATURES

Amperometric 3 electrode sensor cell  
Low susceptibility to abrupt changes of humidity  
High dynamic range  
0 voltage biased operation

### TYPICAL APPLICATIONS

Portable & fixed point applications  
TLV monitoring  
Water treatment plants, swimming pools, chemical industry

### PART NUMBER INFORMATION

MINI	0441-032-30009
SENSORIC CLASSIC	0441-032-30069
CTL 4 series adaptation	0441-032-30049
CTL 7 series adaptation	0441-032-30079

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### TECHNICAL SPECIFICATIONS

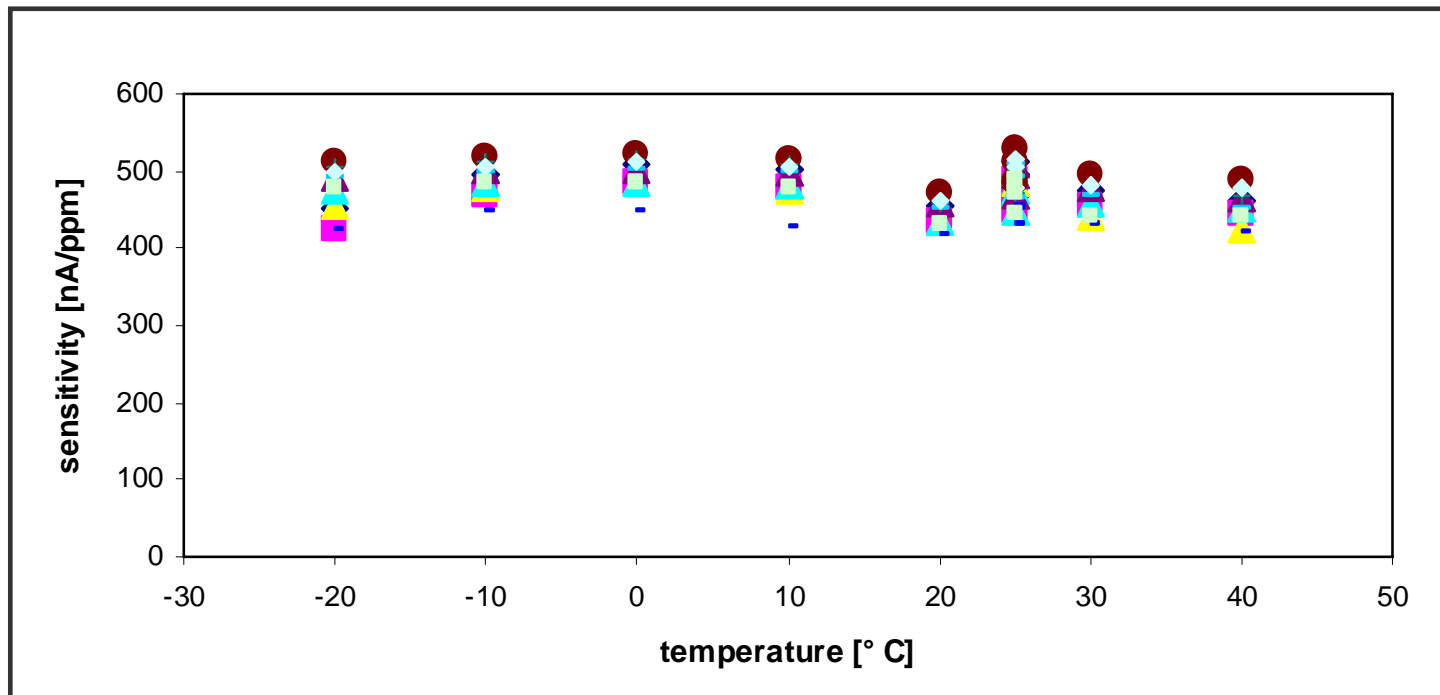
Measuring Range		0-50 ppm; typically: 0-5 ppm
Sensitivity Range		450 nA/ppm $\pm$ 200 nA/ppm (negative current)
Zero Current at 20°C		< $\pm$ 20 nA
Resolution at 20°C		< 0.05 ppm
Bias Potential	0 mV	
Linearity		< 5% full scale
Response Time at 20°C		
t50		< 10 s calculated from 2 min. exposure time
t90		< 30 s calculated from 2 min. exposure time
Long Term Sensitivity Drift		< 10% per 6 months
Operation Conditions		
Temperature Range		-20°C to + 40°C
Humidity Range		10-90% r.H., non-condensing
Effect of Humidity		no effect on zero current
Sensor Life Expectancy		> 24 months in air
Warranty		12 months

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### OUTPUT vs. TEMPERATURE:



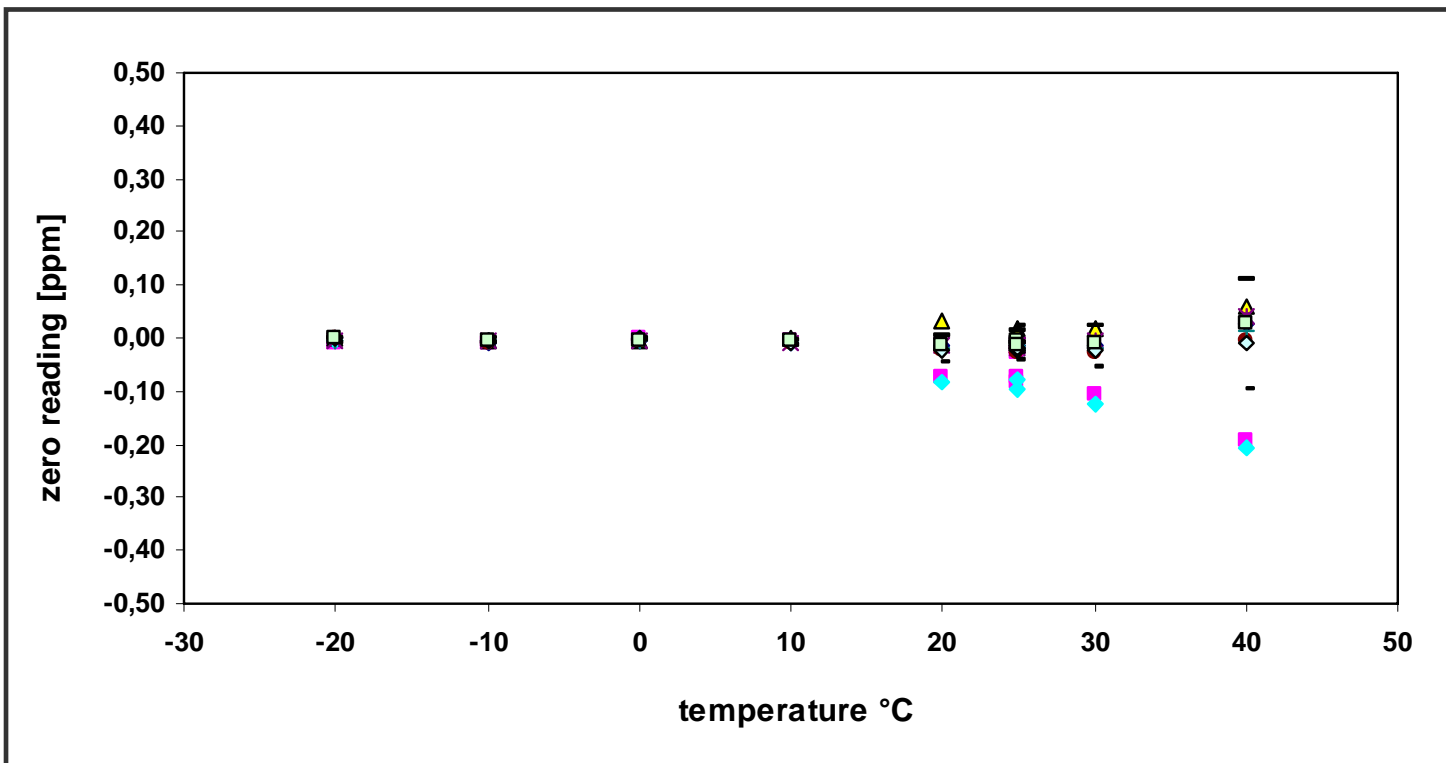
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### ZERO READING vs. TEMPERATURE:



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### CROSS SENSITIVITIES AT 20°C

Gas	Concentration	Reading [ppm]
Ammonia	100 ppm	0
Bromine	1 ppm	1.0
Carbon Dioxide	1 %	0
Carbon Monoxide	100 ppm	0
Chlorine Dioxide	1 ppm	0.5
Fluorine	1.0 ppm	0.4
Hydrogen	3000 ppm	0
Hydrogen Sulfide	20 ppm	0 <sup>1</sup>
Nitrogen Dioxide	10 ppm	2
Ozone	0.25 ppm	0.05
Sulfur Dioxide	20 ppm	3.5

1) Exposure to H<sub>2</sub>S will poison the cell; further exposure to chlorine will re-activate the sensor.

#### 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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