Chlorine

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



TECHNICAL SPECIFICATIONS

Measuring Range 0-50 ppm; typically: 0-5 ppm

Sensitivity Range 450 nA/ppm ± 200 nA/ppm (negative current)

Zero Current at 20° C $< \pm 20 \text{ nA}$ Resolution at 20° C < 0.05 ppm

Bias Potential

Linearity < 5% full scale

 $0 \, \text{mV}$

Response Time at 20°C

< 10 s calculated from 2 min. exposure time
 < 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

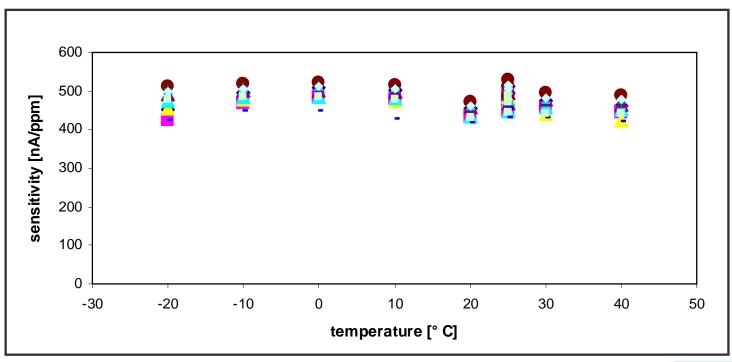
Effect of Humidity no effect on zero current

Sensor Life Expectancy > 24 months in air

Warranty 12 months

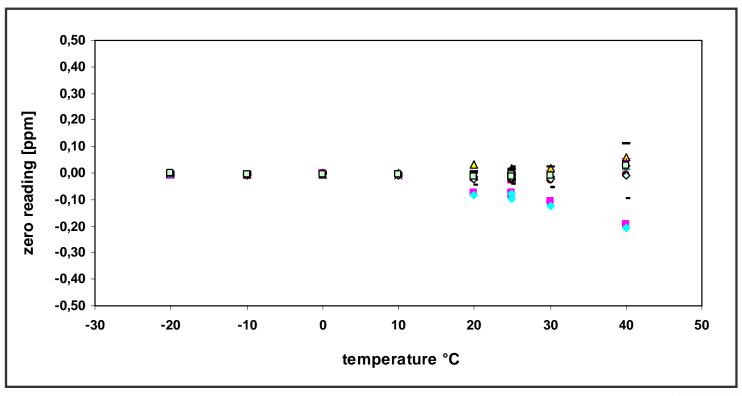


OUTPUT vs. TEMPERATURE:





ZERO READING vs. TEMPERATURE:





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	01
Nitrogen Dioxide	10 ppm	2
Ozone	0.25 ppm	0.05
Sulfur Dioxide	20 ppm	3.5

¹⁾ Exposure to H₂S 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.

