

MST Gas Sensors 9602

Technical Specifications

**Specification Sheet Chlorine**

Sensor Type	Cl <sub>2</sub> Chlorine
Part Number	9602-5300
Measuring Principle	amperometric 3-electrode sensor
Color of Sensor Cap	yellow
Specific Sensor Data	programmed on PROM inside the sensor
Standard Range	0.00 ... 5.00 ppm
Lower Detectable Limit (LDL)	0.15 ppm
Maximum Range	10.00 ppm
MAK/TLV	0.50 ppm / 0.50 ppm
Sensitivity Decay	< 10 % / 6 months
Deviation from Linearity (within standard range)	< 5 % FS
Zero Current at normal conditions	below LDL
Sensitivity	200...500 nA/ppm
Response Time	constant within standard range
t <sub>50</sub>	< 10 s (based on 2 min exposure time)
t <sub>90</sub>	< 30 s (based on 2 min exposure time)
Sensor warm-up time	5 s
Operating conditions	-20 ... +40 °C; 10 ... 95 % r.h. non-condensing
Storage conditions	0 ... +4 °C; 40 ... 60 % r.h. non-condensing
Temperature dependence	compensated with microprocessor
Sensor life	3 years
Sensor dimensions	
• Height	43 mm (1.69 ")
• Diameter	20.5 mm (0.80 ")
• Weight	9 g (0.31 oz)

Note:

All response data given are typical values and related to the sensor being used under normal conditions, i.e. temperature 20 °C, r.h. 40 ... 60 %, normal air pressure.

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Cross Sensitivity

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Gas		Test Gas Concentration	Reading in ppm
Ammonia	NH <sub>3</sub>	65 ppm	0.00
Ammonia	NH <sub>3</sub>	1,000 ppm	0.00
Bromine	Br <sub>2</sub>	1 ppm	1.00
Carbon Dioxide	CO <sub>2</sub>	10%	0.00
Carbon Monoxide	CO	300 ppm	0.00
Chlorine Dioxide	ClO <sub>2</sub>	0.25 ppm	0.05
Diborane	B <sub>2</sub> H <sub>6</sub>	0.6 ppm	0.30
Ethanol	C <sub>2</sub> H <sub>6</sub> OH	6.6%	0.00
Fluorine	F <sub>2</sub>	1 ppm	0.50
Hydrocarbons	-	% - range	0.00
Hydrogen	H <sub>2</sub>	1,000 ppm	0.00
Hydrogen Chloride	HCl	20 ppm	0.00
Hydrogen Cyanide	HCN	10 ppm	0.00
Hydrogen Fluoride	HF	3 ppm	0.00
Hydrogen Sulphide	H <sub>2</sub> S	10 ppm	0.00
Nitrogen Dioxide	NO <sub>2</sub>	2 ppm	0.20
Ozone	O <sub>3</sub>	0.5 ppm	0.15
Sulphur Dioxide	SO <sub>2</sub>	5 ppm	1.00

Test Conditions: T=20°C, P=1013 hPa, Flow Rate = 30 l/h

Please note that the values stated above are approximate values. Negative values are not displayed on the Satellite LCD Display; they will be shown as 0.

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