

MIX8070 Electrochemical Ozone Gas Sensor

Version No.:1.5

Features:

- *High selectivity & sensitivity to O_3
- *High accuracy
- *Linear output
- *Environmental protection design

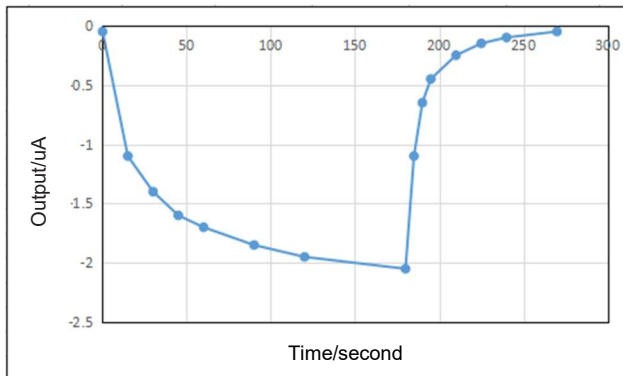
Application:

- * Industrial monitors
- * Leakage detection for sterilization equipment
- * HAVC system
- * O_3 monitoring in distribution cabinets

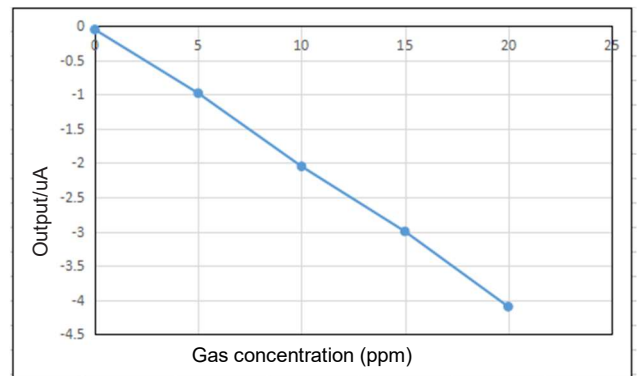
MIX8070 is a very unique electrochemical ozone sensor developed by Mixsen. MIX8070 ozone sensor is a fuel cell type sensor. Ozone undergoes a reduction reaction at the working electrode and generates a current. The level of ozone concentration can be determined by detecting the changes of the current.



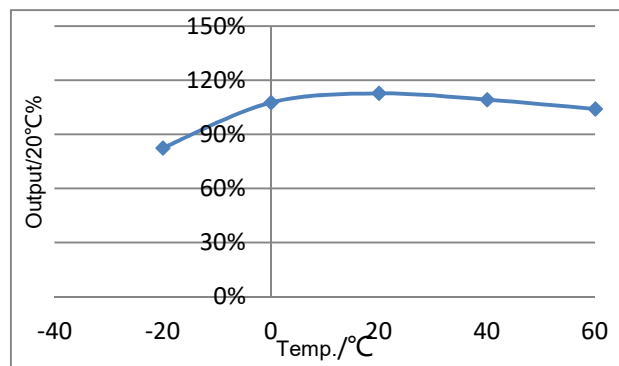
Sensitivity and Response:



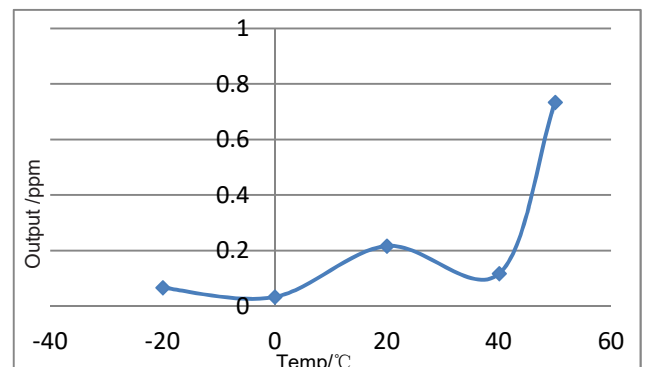
Linear Diagram:



Sensitivity Characteristics:



Temperature dependency in air:



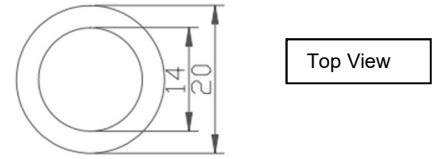
Notice: In different applications used by different customers, the operation condition is different. Mixsen strongly recommend customers contact with Mixsen's technician, especially when the detect gases are not in target gases list, Mixsen cannot responsible if customers has not asked for specifically tested by Mixsen.

Specifications:

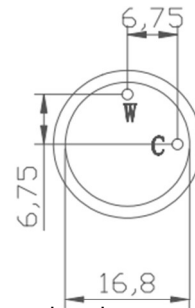
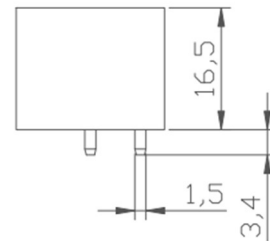
| Item | Specification |
|---------------------------|--------------------------|
| Target Gas | Ozone |
| Measurement Range | 0 ~ 10 ppm |
| Maximum Overload | 20 ppm |
| Sensitivity | >30nA/ppm |
| Repeatability | <5% output |
| Stability | <10% |
| Drift in air (-20°C-40°C) | ≤0.5ppm |
| Resolution | 0.2 ppm |
| Response Time (T90) | < 120 seconds |
| Long Term Output Drift | < 2% /month |
| Life Expectancy(in air) | 7 years |
| Operating Temp. & Hum. | -20 ~ 50°C / 15 ~ 90% RH |
| Operating Press | 0.1MPa±10% |
| Bias Voltage | Not required |

Note: All measurements were taken at 20°C and 50%RH at 1013hP

Structure and Dimensions:



Top View



Bottom View

All dimensions in mm
All tolerance ±0.1mm, unless otherwise stated

Cross Sensitivity:

The cross sensitivity data show below is MIX8070 respond under 25 °C.

| Gas | Concentration(ppm) | Reading(ppm O ₃) |
|------------------|--------------------|------------------------------|
| Chlorine | 3 | 1 |
| Hydrogen Sulfide | 15 | <-1 |
| Nitrogen Dioxide | 5 | 2 |
| Carbon monoxide | 300 | 0 |
| Sulfur Dioxide | 5 | 0 |
| Hydrogen | 500 | 0 |

Operating Note:

- * The soldering tin was forbidden to contact with the sensor.
- * Aging the sensor no less than 30 mins before operation.
- * Keeping the sensor out of the volatile solvent.
- * Prohibit storage and operating the sensor in acidic or alkaline environment.

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