

# MIX8018 Electrochemical Carbon Monoxide Gas Sensor

Version No.:1.5

**Features:**

- \*High selectivity and sensitivity to CO
- \*High accuracy
- \*Linear output
- \*Long life
- \*Environmental protection design

**Application:**

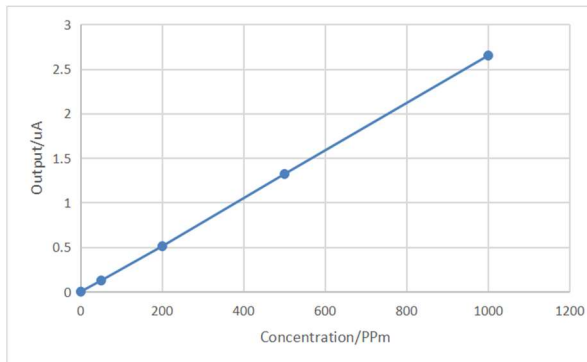
- \*Residential and commercial
- \*Industrial monitors
- \*Indoor underground parking
- \*Houseboat and moto home
- \*Fire detection
- \*Ventilation control
- \*Domestic generator

MIX8018 is a battery operable electrochemical carbon monoxide sensor developed by Mixsen. Carbon monoxide and oxygen on the working electrode and counter electrode are subjected to oxidation-reduction reaction correspondingly. This produces the electric current. The current is directly proportional to the concentration of carbon monoxide and following the Faraday's law. Through measure the current to get the concentration of carbon monoxide.



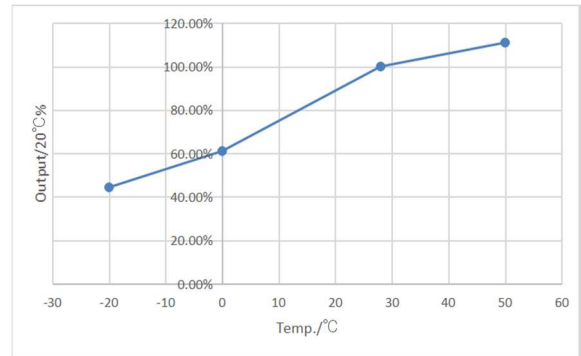
**Sensitivity Characteristics:**

MIX8018 (25° C) linear output

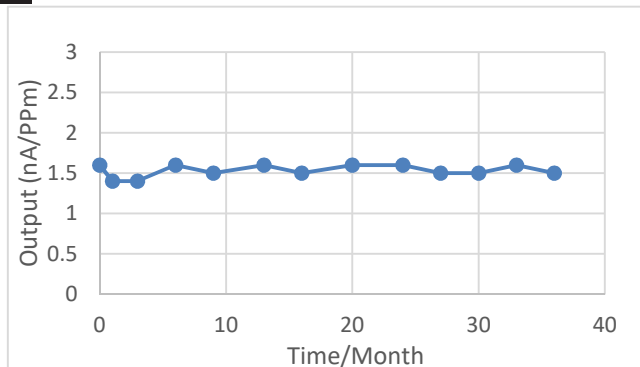


**Temperature dependency:**

MIX8018 temperature dependency



**Stability Characteristics:**



**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	Carbon monoxide
Measurement Range	0 ~ 1000 ppm
Maximum Overload	2000 ppm
Output Current	1.5-3.5 nA/ppm
Repeatability	±2%
Resolution	0.5 ppm
Response Time (T90)	< 60 seconds
Long Term Output Drift	< 2% /month
Lifetime	7 years
Operating Temperature Range	-20 ~ 50°C
Operating Humidity Range	15 ~ 90% RH
Operating Pressure Range	0.1mpa±10%
Recommended Load Resistor	1kΩ
Bias Voltage	Not required

**Note:** All measurements were taken at 20°C, 50%RH at 1013hPa

### Cross Sensitivity:

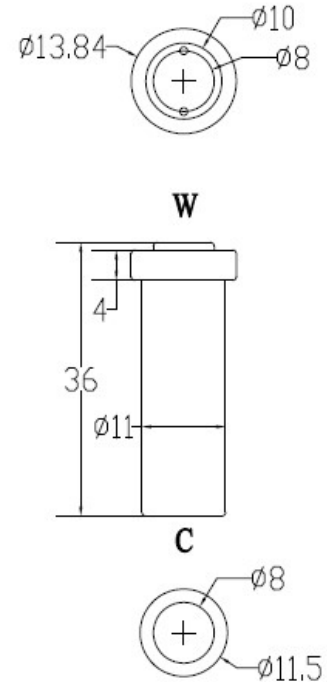
The cross sensitivity data show below is MIX8018 respond.

Gas	Concentration(ppm)	Reading(ppm CO)
Ethanol	10	0
Hydrogen Sulfide	100	0
Ethylene	100	80
Hydrogen	500	40
Ethylene Oxide	10	0
Nitrogen Dioxide	10	0
Ammonia	20	0
Chlorine	10	1

### Operating Note:

- \* When soldering the metal ribbons, 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.

### Structure and Dimensions:



All dimensions in mm

All tolerance  $\pm 0.1$ mm, unless otherwise stated

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