

ME2-CO Electrochemical Carbon Monoxide sensor with UL certificate

Manual

(Model: ME2-CO)

Zhengzhou Winsen Electronics Technology Co., Ltd

Statement

This manual copyright belongs to Zhengzhou Winsen Electronics Technology Co., LTD. Without the written permission, any part of this manual shall not be copied, translated, stored in database or retrieval system, also can't spread through electronic, copying, record ways.

Thanks for purchasing our product. In order to let customers use it better and reduce the faults caused by misuse, please read the manual carefully and operate it correctly in accordance with the instructions. If users disobey the terms or remove, disassemble, change the components inside of the sensor, we shall not be responsible for the loss.

The specific such as color, appearance, sizes &etc, please in kind prevail.

We are devoting ourselves to products development and technical innovation, so we reserve the right to improve the products without notice. Please confirm it is the valid version before using this manual. At the same time, users' comments on optimized using way are welcome.

Please keep the manual properly, in order to get help if you have questions during the usage in the future.

Zhengzhou Winsen Electronics Technology CO., LTD

ME2-CO gas sensor with UL certificate

Profile

ME2-CO electrochemical sensor detect gas concentration by measuring current based on the electrochemical principle, which utilizes the electrochemical oxidation process of target gas on the working electrode inside the electrolytic cell, the current produced in electrochemical reaction of the target gas are in direct proportion with its concentration while following Faraday law, then concentration of the gas could be get by measuring value of current.

1.Features

- * Low consumption
- * High precision
- * High sensitivity
- * Wide linear range
- * Good anti-interference ability
- * Excellent repeatability and stability

2 Application

Widely used in civilian area to detect CO concentration.

3. Technical Parameter



Item	Parameter
De te ction gas	со
Measure ment Range	0~1000 ppm
Max de tecting concentration	2000 ppm
Sensitivity	0.023±0.008 μA/ppm
Resolution ratio	0.5 ppm
Response time (T ₉₀)	≤50 S
Load resistance	200 Ω (recommended)
Repeatability	<3%output value
Stability (/year)	<10%
Output Linearity	Linear
Zero drift(-20℃~40℃)	≤10 ppm
Storage temperature	-20℃~50℃
Storage Humidity	15%~90%RH
Pressure range	normal atmosphere ±10%
Anticipated using life	5 yea rs

4. External dimension



Tel: 86-371-67169097/67169670 Fax: 86-371-60932988

Leading gas sensing solutions supplier in China!

5. Characterization

Features of Sensitivity, response and recovery time





Output under different temp.







6. Basic circuit



7. Anti-Interference:

interferential gases

ME2-CO sensor also responds to other gases besides CO. Below are the response characteristics of

Gas	Concentration	ME2-CO-Φ20
H2S	100 ppm	0 ppm
SO2	20 pp m	0 ppm
Н2	200 ppm	40 pp m
C2H4	100 ppm	80 pp m
NO	35 ppm	6 ppm
NO2	5 ppm	0 ppm
С2Н5ОН	1000 ppm	0 ppm

8.Application Notes:

- Tin soldering is prohibited.
- Before using, power on to aging for more than 48 hours is necessary.
- Pins can't be broke off or bent.
- Don't disassemble the sensor to avoid the damage caused by electrolyte leakage.
- Avoid contacting organic solvent (including Silicone rubber and other adhesive), coatings, medicine, oil and high concentration gases.
- All the electrochemical sensors shall not be encapsulated completely by resin materials, and shall not immerse in pure oxygen environment, otherwise, it will damage the function of sensor
- All electrochemical sensors shall not be applied in corrosive gas environment, or the sensor will be damaged
- Zero calibration should be finished in clean air.
- During test and usage, sensors should avoid the gas inflow vertically
- The side for inflow can't be choked and polluted.
- The laminating film above the sensor surface can't be uncovered and damage.
- Excessive impact or vibration should be avoided
- It takes some time for the sensor to return to normal state after it is applied in high concentration gas
- Working electrode and reference electrode of the sensor shall be in short circuit when stored
- Prohibit to use the hot cement or sealant of which the curing temperature is higher than 80 °C to make the capsulation for the sensor.
- Prohibit storage and usage for long time in alkaline gases with high concentration.
- Do not use the sensor when the shell is damaged

Note: To keep continual product development, we reserve right to change design features without prior notice!

Zhengzhou Winsen Electronics Technology Co., Ltd Add: No.299, Jinsuo Road, National Hi-Tech Zone, Zhengzhou 450001 China Tel: +86-371-67169097/67169670 Fax: +86-371-60932988 E-mail: sales@winsensor.com Website: www.winsen-sensor.com

Leading gas sensing solutions supplier in China!