

FECS40-1000 - for the Detection of Carbon Monoxide

Features:

- * High sensitivity/selectivity to CO
- * Quick response to CO
- * Linear output
- * Long life
- * Stable baseline
- * Unique leak-proof structure

The FECS40-1000 is a unique electrochemical-type carbon monoxide sensor. Its most notable feature is its unique leak-proof structure, making it ideal for CO monitors and detectors in various fields.

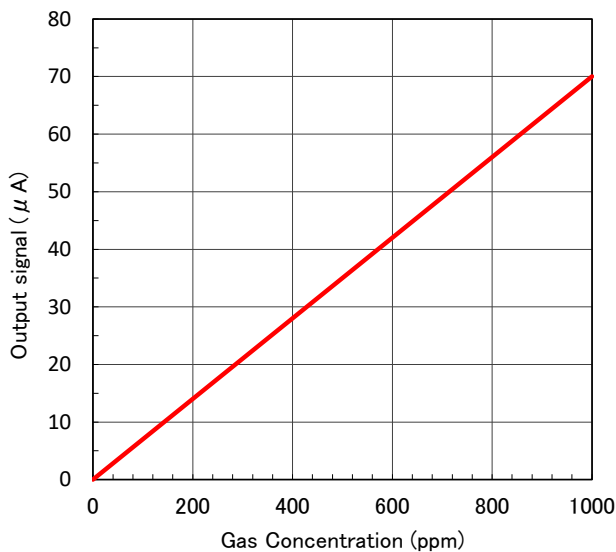
Applications:

- * Portable and fixed installation CO monitors
- * CO detectors
- * Ventilation control for indoor parking garages



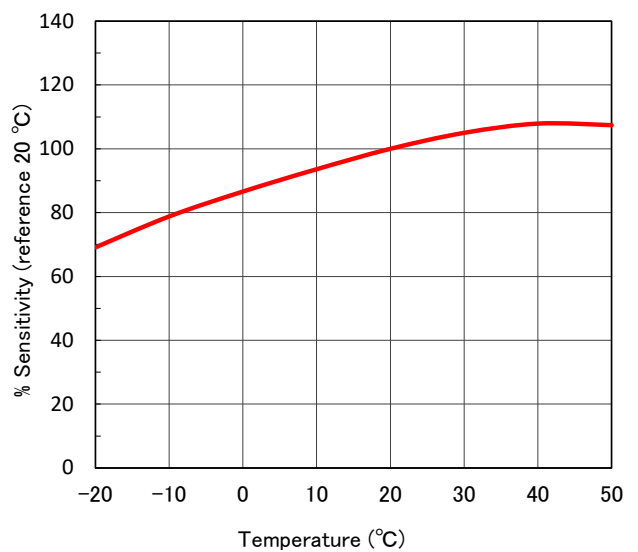
Sensitivity Characteristics:

Typical characteristics (linearity) of FECS40-1000 (20°C) are shown below.



Temperature Dependency:

Typical characteristics (temperature dependency) of FECS40-1000 are shown below.



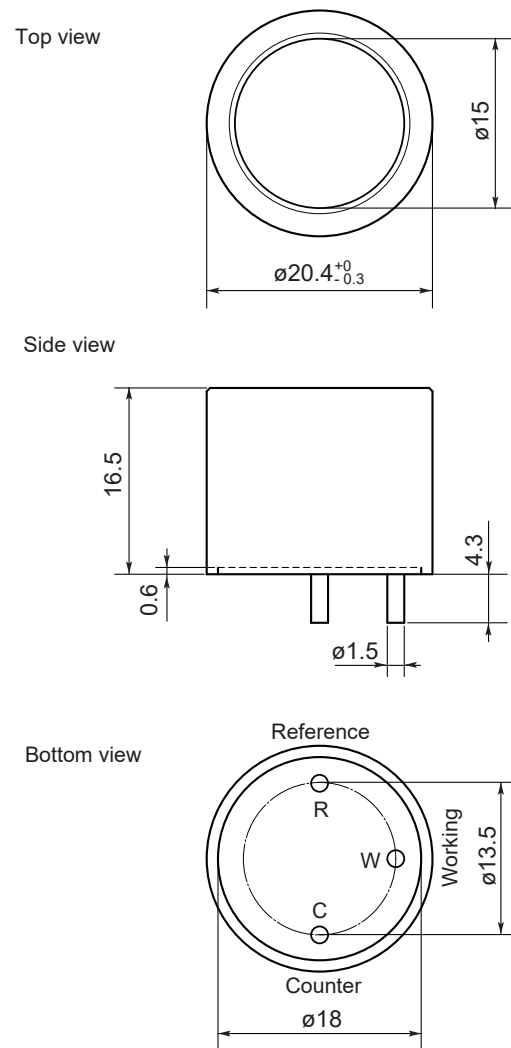
Specifications:

| | |
|----------------------------------|------------------------|
| Detection Gas | Carbon Monoxide |
| Detection Range | 0 ~ 1000 ppm |
| Maximum Overload | 1500 ppm |
| Output Signal | 70 ± 15 nA/ppm (*1) |
| Repeatability | ±2% (*1) |
| Resolution | 1 ppm (*1) |
| Baseline Range (Clean air) | -2 ppm to +3 ppm (*1) |
| Response Time (t ₉₀) | < 30 sec (*1) |
| Baseline Shift (-20 ~ 40°C) | < 5 ppm (typical) (*1) |
| Long Term Output Drift | < 5% /year (*1) |
| Expected Life Time | > 3 years (*1,*2) |
| Operating Temperature | -20 ~ 50°C |
| Operating Humidity | 15 ~ 90% RH |
| Operating Pressure Range | 1013 hPa ±10% |
| Recommended Load Resistor | 10 Ω |
| Bias Voltage | Not required |
| Position Sensitivity | None |
| Recommended Storage Temp. | 0 ~ 20°C |
| Cap Color | Red |
| Weight | 4.5g (approx.) |

*1 Factory test data conditions: 20°C, 50%RH and 1013 hPa.

*2 Life expectancy in normal air under the factory test conditions is defined as the period until sensor output drops to 60% of its original value.

Dimensions:



All dimensions in mm.

All tolerance ± 0.1mm unless otherwise stated.

Cross Sensitivity Data :

Table1 shows the typical response of FECS40-1000 to interference gases.

Table1 Cross Sensitivity of FECS40-1000 (20°C)

| Gas | Concentration (ppm) | Typical Carbon Monoxide Concentration(ppm)Equivalent |
|------------------|---------------------|--|
| Carbon Monoxide | 100 | 100 |
| Hydrogen | 100 | < 40 |
| Carbon Dioxide | 5,000 | 0 |
| Sulphur Dioxide | 30 | 0 |
| Hydrogen Sulfide | 30 | 0 |
| Nitric Oxide | 30 | < 3 |
| Nitrogen Dioxide | 30 | 0 |
| Ammonia | 100 | 0 |
| Ethanol | 200 | 0 |

FIGARO ENGINEERING INC.
 1-5-11 Senba-nishi
 Mino, Osaka 562 JAPAN
 Phone: (81)-72-728-2045
 www.figaro.co.jp
 email: figaro@figaro.co.jp