

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.

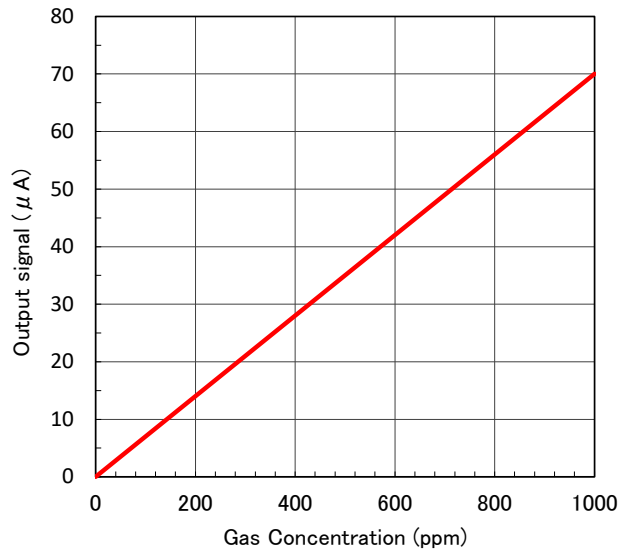
Applications:

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



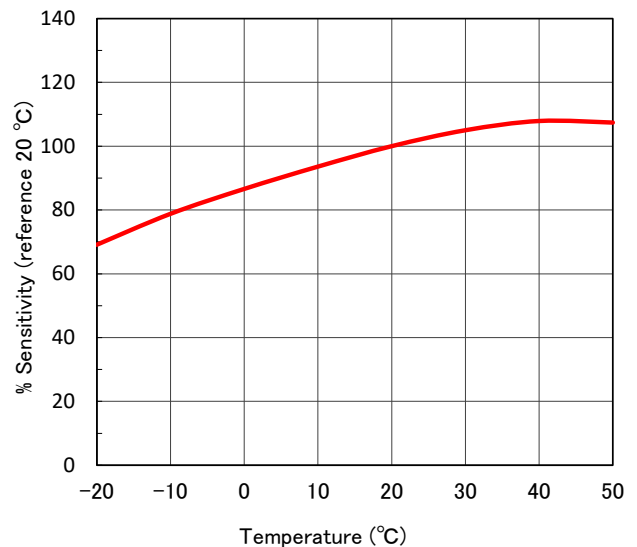
Sensitivity Characteristics:

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.

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

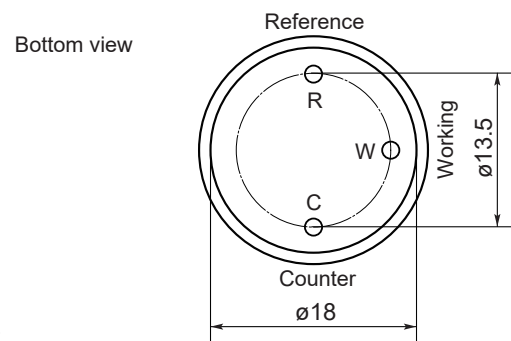
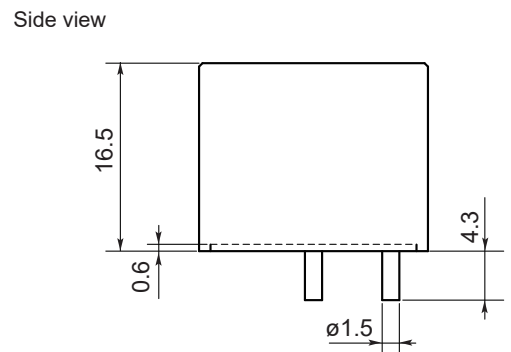
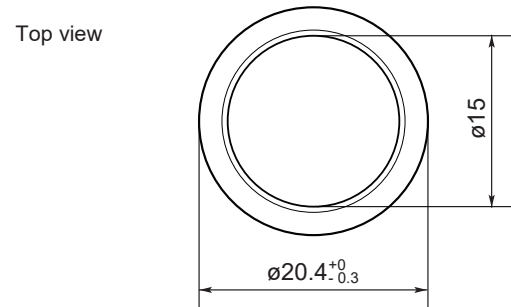
For information on warranty, please refer to Standard Terms and Conditions of Sale of Figaro USA Inc. All sensor characteristics shown in this brochure represent typical characteristics. Actual characteristics vary from sensor to sensor. The only characteristics warranted are those in the Specification table above.

Before purchasing this product, please read the Warranty Statements shown in our webpage by scanning this QR code.



https://figarosensor.com/pdf/Figaro_USA_Sales_T&C.pdf

Dimensions:



Unit: mm

All tolerance ± 0.1mm unless otherwise stated.

The following are the recommended socket pins of FECS-series gas sensors:

Recommended specifications:

- Basically fitting male pin diameter is φ1.5 mm
- Male pin insertion depth is 4.3 mm or more

Socket pins (example):

S.E.R. Corporation: SS 6000-00

Mac Eight Co., Ltd: PD-152

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