

FECS50-100 - for the Detection of Hydrogen Sulfide

Features:

- * High sensitivity/selectivity to H₂S
- * Quick response to H₂S
- * Small influence by CO
- * Linear output
- * Long life
- * Stable baseline
- * Unique leak-proof structure

The FECS50-100 is a unique electrochemical-type hydrogen sulfide sensor. Its most notable features are small influence by CO and a unique leak-proof structure. These features make the sensor ideal for H₂S monitors and detectors in various fields.

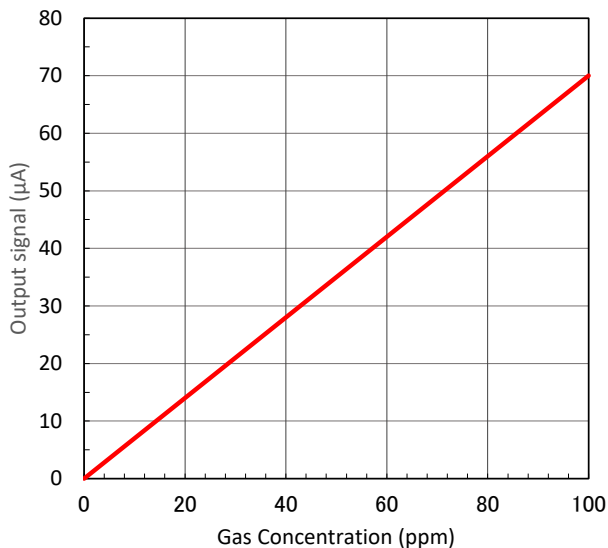
Applications:

- * Portable and fixed installation H₂S monitors
- * H₂S detectors



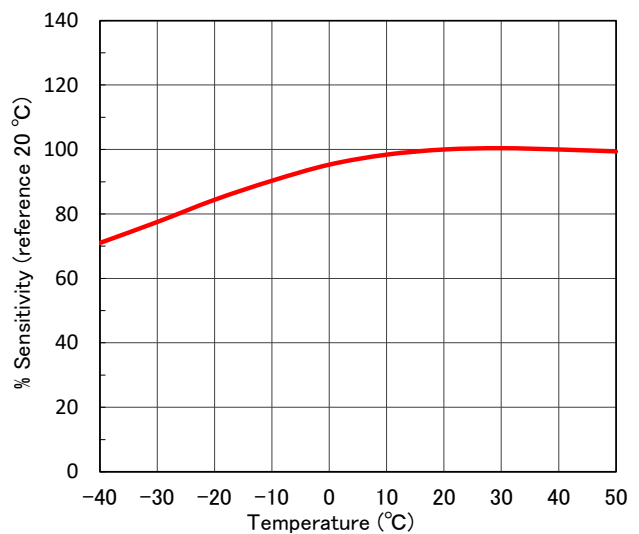
Sensitivity Characteristics:

Typical characteristics (linearity) of FECS50-100 (20°C) are shown below.



Temperature Dependency:

Typical characteristics (temperature dependency) of FECS50-100 are shown below.



Specifications:

Detection Gas	Hydrogen Sulfide
Detection Range	0 ~ 100 ppm
Maximum Overload	500 ppm
Output Signal	700 ± 150 nA/ppm (*1)
Repeatability	±2% (*1)
Resolution	0.1 ppm (*1)
Baseline Range (Clean air)	-0.1ppm to +0.4 ppm (*1)
Response Time (t ₉₀)	< 30 sec (*1)
Baseline Shift (-20 ~ 40°C)	< 0.5 ppm (*1)
Long Term Output Drift	< 2% /month (*1)
Expected Life Time	> 2 years (*1,*2)
Operating Temperature	-40 ~ 50°C
Operating Humidity	15 ~ 90% RH
Operating Pressure Range	1013 hPa ±10%
Recommended Load Resistor	10Ω
Bias Voltage	Not required
Position Sensitivity	None
Recommended Storage Temp.	0 ~ 20°C
Cap Color	Dark Blue
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 FECS50-100 to interference gases.

Table1 Cross Sensitivity of FECS50-100 (20°C)

Gas	Concentration (ppm)	Typical Hydrogen Sulfide Concentration(ppm)Equivalent
Hydrogen Sulfide	10	10
Carbon Monoxide	300	< 2
Carbon Dioxide	5,000	0
Hydrogen	1,000	< 3
Sulphur Dioxide	5	0.5
Nitric Oxide	30	0.3
Nitrogen Dioxide	5	-1
Ammonia	100	0
Ethanol	1,000	< 2

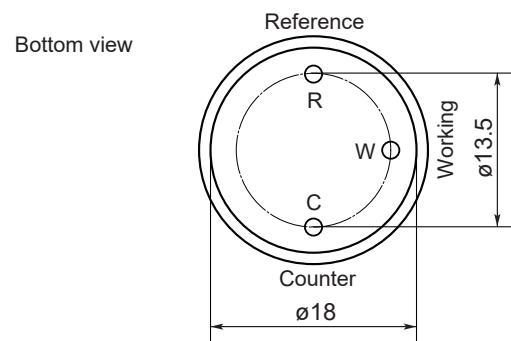
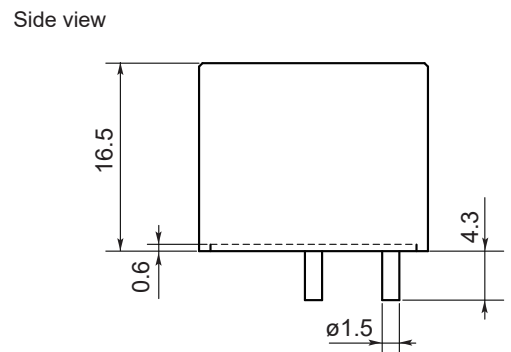
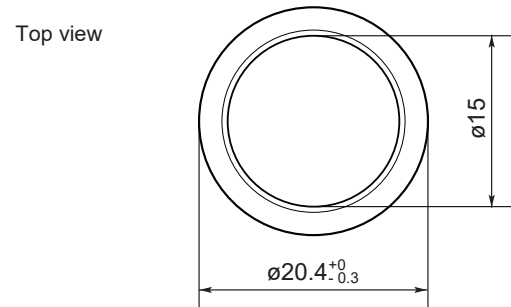
For information on warranty, please refer to Standard Terms and Conditions of Sale of Figaro USA Inc. All sensor characteristics shown in this brochure represent typical characteristics. Actual characteristics vary from sensor to sensor. The only characteristics warranted are those in the Specification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