

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

Applications:

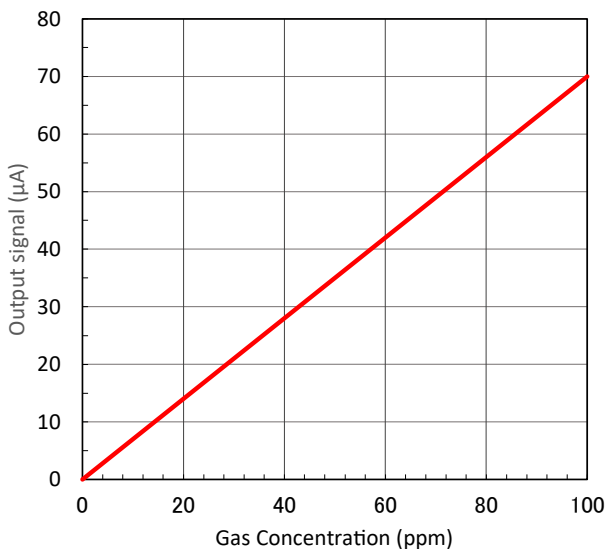
- * Portable and fixed installation H₂S monitors
- * H₂S detectors

Figaro's Hydrogen Sulfide Sensor 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.



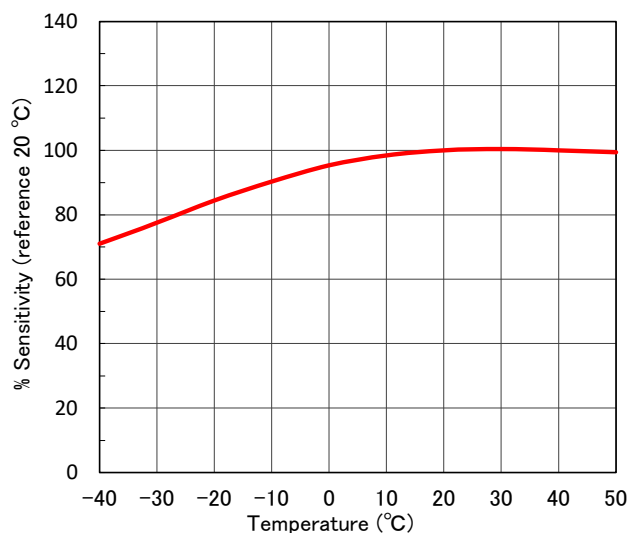
Sensitivity Characteristics:

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



Temperature Dependency:

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

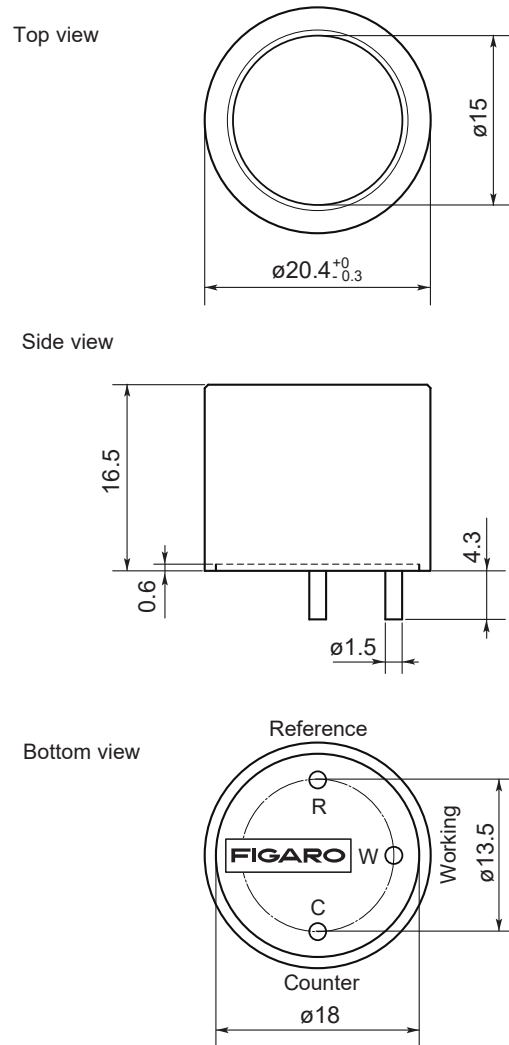


Specifications:

| | |
|--|-------------------------|
| Detection Gas | Hydrogen Sulfide |
| Detection Range | 0 ~ 100 ppm |
| Maximum Overload | 500 ppm |
| Output Signal | 700 ± 150 nA/ppm (*) |
| Repeatability | ±2% (*) |
| Resolution | 0.1 ppm (*) |
| Typical Baseline Range (Pure air) | -0.1ppm to +0.4 ppm (*) |
| Typical Response Time (t ₉₀) | < 30 sec (*) |
| Baseline Shift (-20 ~ 40°C) | < 0.5 ppm(*) |
| Long Term Output Drift | < 2% /month (*) |
| Expected Life Time | > 2 years (*) |
| 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 |
| Storage Life | 6 months |
| Cap Color | Dark Blue |
| Weight | 4.5g (approx.) |

(*) Performance data conditions: 20 °C, 50%RH and 1013 hPa.

Dimensions:



All dimensions in mm.
All tolerance ± 0.1mm unless otherwise stated.

Cross Sensitivity Data :

Table1 shows the typical response of FECS50-100 to interference gases.

Table1 Cross Sensitivity of FECS50-100 (20C)

| 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 |

