

# FECS50-100 - for the Detection of Hydrogen Sulfide

### Features:

- \* High sensitivity/selectivity to H<sub>2</sub>S
- \* Quick response to H<sub>2</sub>S
- \* Small influence by CO
- \* Linear output
- \* Long life
- \* Stable baseline
- \* Unique leak-proof structure

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 H<sub>2</sub>S monitors and detectors in various fields.

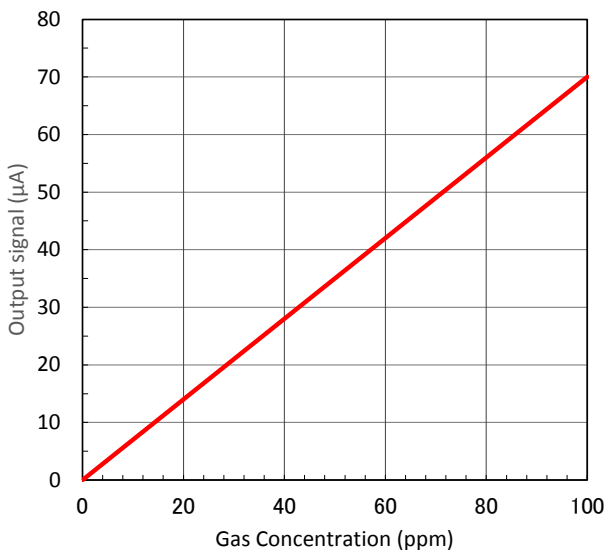
### Applications:

- \* Portable and fixed installation H<sub>2</sub>S monitors
- \* H<sub>2</sub>S detectors



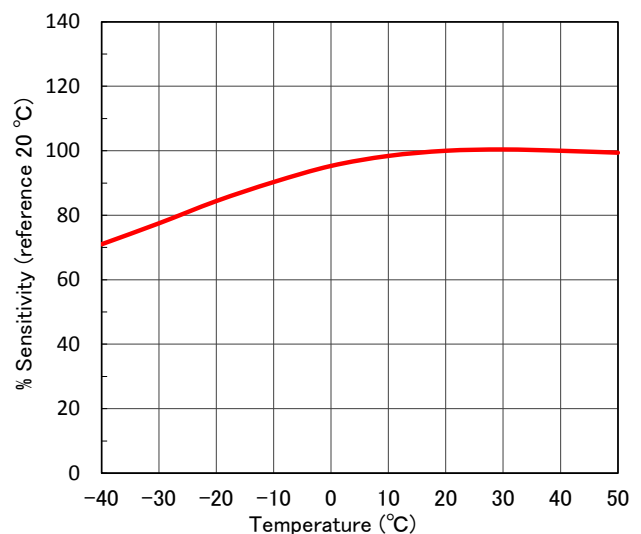
### Sensitivity Characteristics:

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



### Temperature Dependency:

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

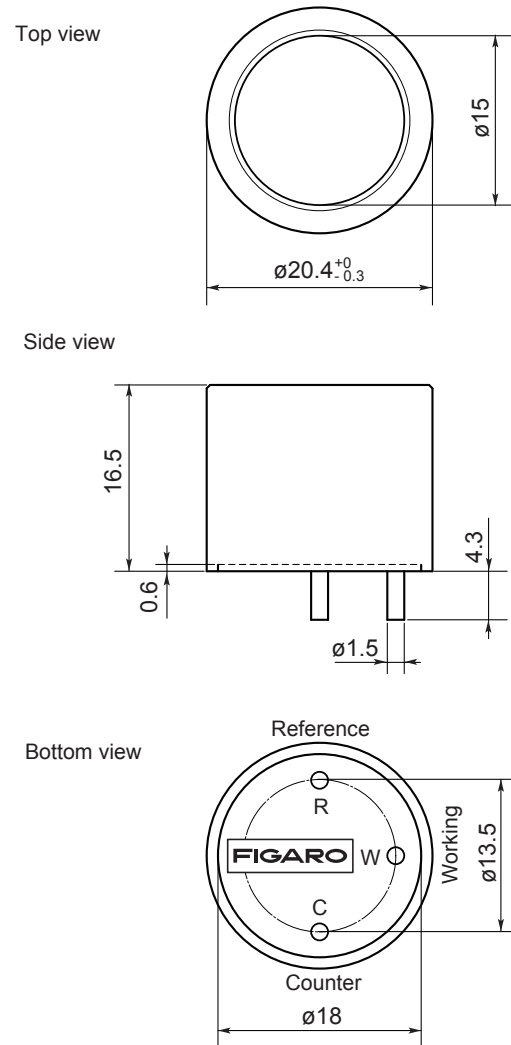


### Specifications:

Detection Gas	Hydrogen Sulfide
Detection Range	0 ~ 100 ppm
Maximum Overload	500 ppm
Output Signal	700 ± 150 nA/ppm (*)
Repeatability	±2% (*)
Resolution	0.1 ppm (*)
Typical Baseline Range (Pure air)	-0.1ppm to +0.4 ppm (*)
Typical Response Time (t <sub>90</sub> )	< 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	Less than 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 (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

**FIGARO ENGINEERING INC.**  
 1-5-11 Senba-nishi  
 Mino, Osaka 562 JAPAN  
 Phone: (81)-72-728-2561  
 Fax: (81)-72-728-0467  
 www.figaro.co.jp  
 email: figaro@figaro.co.jp