FECS43-20 - for the Detection of Sulfur Dioxide

Applications:

* SO, detectors

Features:

- * High sensitivity/selectivity to SO,
- * Quick response to SO₂

FIGARO

- * Linear output
- * Long life
- * Stable output signal at high-temperature
- * Unique leak-proof structure

Figaro's Sulfur Dioxide Sensor FECS43-20 is a unique electrochemical-type sulfur dioxide sensor. Its most notable features are stable output signal at high-temperature and a unique leak-proof structure. These features make the sensor ideal for SO₂ monitors and detectors in various fields.

Hur Dioxide Sent FECS43-20 BG1A- 0002

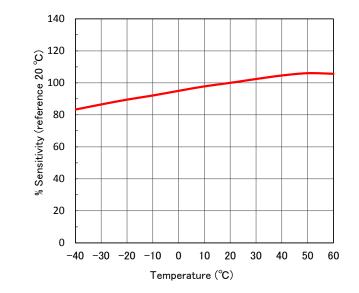
Sensitivity Characteristics:

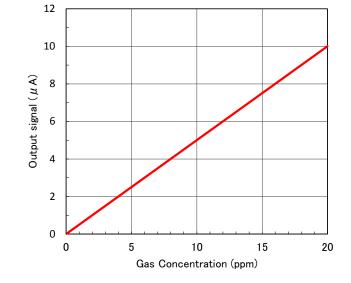
Typical characteristics (linearity) of FECS43-20 (25 $^\circ\text{C})$ are shown below.



Typical characteristics (temperature dependency) of FECS43-20 are shown below.

* Portable and fixed installation SO, monitors





FIGARO

Specifications:

| Detection Gas | Sulfur Dioxide | |
|--|-------------------------------------|--|
| Detection Range | 0 ~ 20 ppm | |
| Maximum Overload | 150 ppm | |
| Output Signal | 500 ± 100 nA/ppm (*) | |
| Repeatability | ±2% (*) | |
| Resolution | 0.1 ppm (*) | |
| Baseline Range (Pure air) | -0.2 ppm to +0.5 ppm equivalent (*) | |
| Typical Response Time (t ₉₀) | < 25 sec (*) | |
| Baseline Shift (-20 ~ 40°C) | < ±0.2 ppm equivalent(*) | |
| Long Term Output Drift | < 2% /month (*) | |
| Expected Life Time | > 2 years (*) | |
| Operating Temperature | -30 ~ 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 | Green | |
| Weight | 4.5g (approx.) | |

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

Cross Sensitivity Data :

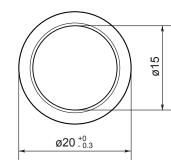
Table1 shows the typical response of FECS43-20 to interference gases.

| | * | | |
|------------------|------------------------|--|--|
| Gas | Concentration (ppm) | Typical Sulfur Dioxide Concentration(ppm)Equivalent | |
| Sulfur Dioxide | 10 | 10 | |
| Carbon Monoxide | 300 | < 1 | |
| Carbon Dioxide | 5,000 | 0 | |
| Hydrogen | 400 | < 1 | |
| Hydrogen Sulfide | 15 | 0 | |
| Nitric Oxide | 50 | 1 | |
| Nitrogen Dioxide | 10 | -10 | |
| Ammonia | 20 | 0 | |
| Chlorine | 5 | -1 | |

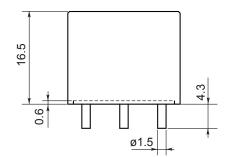
Table1 Cross Sensitivity of FECS43-20 (25°C)

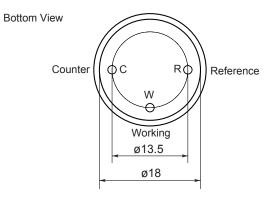
Dimensions:

Top View



Side View





All dimensions in mm.

All tolerance ± 0.1mm Unless otherwise stated.

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