

FECS44-100/-200 gas sensor for low concentration ammonia detection

characteristic :

- * High selectivity for ammonia
- * Very little interference from hydrogen sulfide
- * Excellent durability in ammonia environments
- * linear output
- * long-life
- * baseline stability
- * Unique leak-proof structure

The FECS44 is a unique electrochemical ammonia sensor with minimal interference from hydrogen sulfide, excellent durability in ammonia environments, and a unique leak-proof construction. These features make it the ideal choice for ammonia monitors and detectors across various fields.

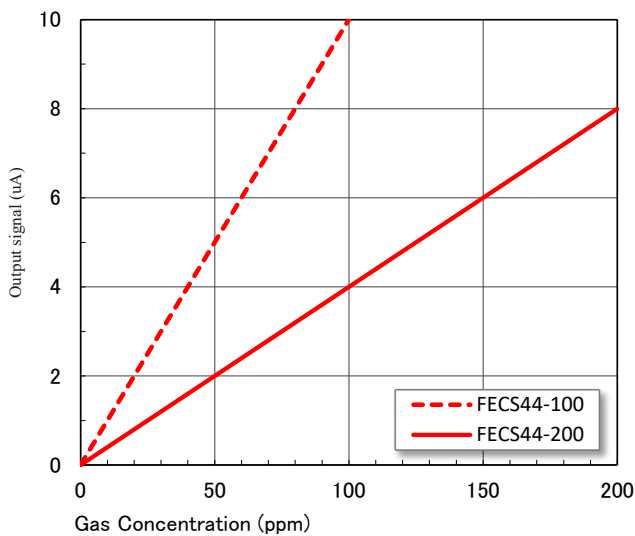
apply :

- Portable and fixed ammonia monitors
- :: Ammonia detectors
- * Refrigerant leak monitoring in refrigerators



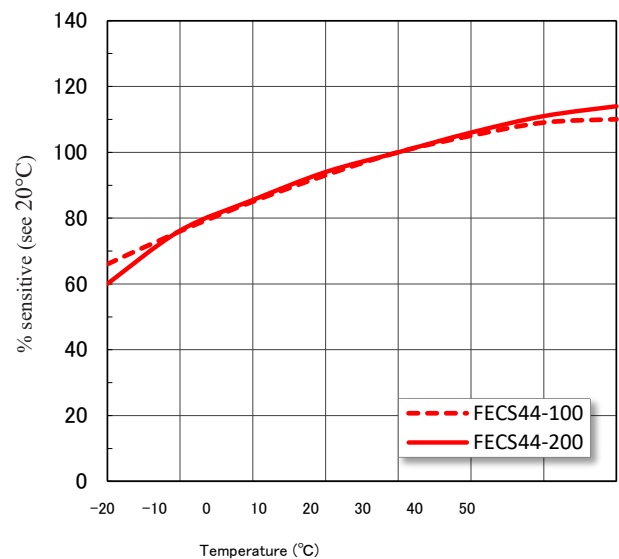
Sensitivity characteristics:

The typical characteristics of FECS44-100/-200(20°C) (linear output) are shown in the figure below.



Temperature dependent characteristics:

The typical characteristics (temperature dependent) of FECS44-100/-200 are shown in the figure below.



Important Notice: The application conditions for Figaro sensors may vary depending on specific customer requirements. Figaro strongly recommends consulting our technical team prior to use, particularly when the detected gas is not listed. Figaro assumes no liability for any usage that has not undergone professional testing by Figaro.

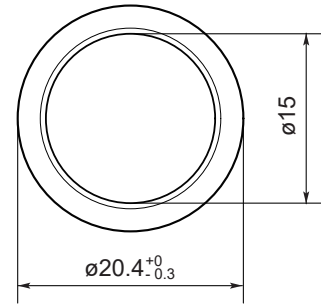
specifications :

Structure and size:

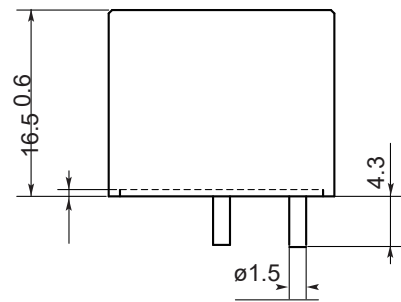
model	FECS44-100	FECS44-200
Object gas	ammonia	
Scope of detection	0 ~ 100 ppm	0 ~ 200 ppm
Extreme overload	200 ppm	500 ppm
output signal	100 ± 30 nA/ppm (*)	40 ± 12 nA/ppm (*)
repeatability	± 10% (*)	
resolution ratio	1 ppm (*)	2 ppm (*)
Typical baseline range (pure air)	< ± 2 ppm(*)	< ± 4 ppm(*)
Typical response time (t90)	60 second (*)	90 second (*)
Baseline conversion (-30 ~ 50°C)	< 3 ppm(*)	< 6 ppm(*)
Long-term output drift	< 2% / month (*)	
expected life	> 2 years (*)	
working temperature	-30 ~ 50°C	
Humidity at work	15 ~ 90% RH	
working pressure range	1013 hPa ± 10%	
Recommended load resistance	33 Ω	
offset voltage	no requirement	
Directional sensitivity	not have	
Recommended storage temperature	0 ~ 20°C	
Hat color	purple	
net weight	About 4.5g	

(*) Performance parameters prerequisite: 20. C, 50%RH, 1013hPa.

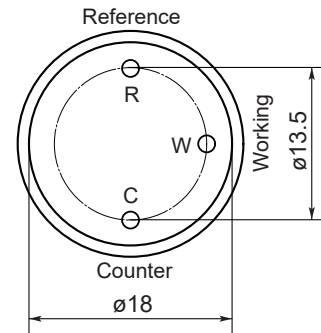
vertical view



lateral view



upward view



Unit : mm

Unless otherwise stated, all work is ±0.1mm

Cross-sensitive characteristic data:

Table 1 below shows the typical response of FECS44-100/-200 to various interfering gases.

Table 1 Cross-Sensitivity Characteristics of FECS44-100/-200 (20. C)

gas	potency (ppm)	Typical ammonia equivalent concentration (ppm)	
		FECS44-100	FECS44-200
ammonia	100	100	100
hepatic gas	10	-1.5 ~ 0	-1.5 ~ 0
sulfur dioxide	10	-3	-2
carbon dioxide	5,000	0	0
carbon monoxide	300	0	0
hydrogen	1,000	0	0
nitrogen dioxide	20	-1.5 ~ 0	0
nitric oxide	30	0	0
ethyl alcohol	100	0	0

Figaro Technology Research Co., LTD
 11,1-5-11, Funamachi West, Kaminami City, Osaka
 Zip code: 562-8505
 Tel: + 81727282561
 Fax: 81-72-728-0467
 Mail: figaro@figaro.co.jp
 URL: www.figaro.co.jp