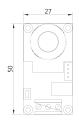
Gas sensor module **SM16X1**

Generally, the gas sensor could be divided as 4 kinds such as the electric chemical type, the semi-conductor type, the optic type, the catalytic. The application of each sensor type is quite different. It is important to adopt the proper gas sensor depend on the gas type, environmental factor in the using area, sensing range, resolving ability, cost, etc. Senko Co., Ltd is trying to provide the most proper gas sensor and modules depend on customers" requests, keeping lots of the technology development and Know How related with the gas sensor.





FRONT VIEW



- The carbon dioxide sensor module sequenced with the air conditioner
- The smell sensor module for home appliance (TVOC sensor adopted)
- Hydrogen detecting module for the fuel battery
- Electric sensor transmitter only for the electric chemical sensor type
- Concentrated Oxygen Sensor Modules for the Oxygen Generator
- Concentrated Odor sensor module
- Module related with the electronic nose

Model				SM16X1			
Measuring gas	O ₂	O_2	CO	H ₂ S	H ₂	H ₂	NH₃
Measuring type				Diffusion Type	e		
Measuring method	Electrochemical	Electrochemical		Electrochemical	Electrochemic	cal Catalytic combustion	on Electrochemical
Measuring range	0~100%	0~30%	0~500ppm 0~1000ppm	0~100ppm	0~1000ppm	0~100%LEL	0~100ppm
Sensor life time	> 18 month	> 24 month	> 24 month	> 24 month	> 24 month	> 2 year	> 24 month
Response time	T90 < 5 sec	T90 < 15 sec	T90 < 15 sec	T90 < 30 sec	T90 < 30 sec	T90 < 10 sec	T90 < 90 sec
Accuracy	±3%/Full scale						
Sensitivity	0.10%	0.10%	1ppm 3ppm	0.5ppm	5ppm	1%LEL	0.5ppm
Output signal	4-20mA						
Operating temperature	-10 ~ 50°C						
Operating humidity	15 ~ 90%RH						
Operating power	9 ~ 30VDC (Max 80mA @ 12VDC) (Galvanic, Electrochemical - 10~15mA, IR or Catalytic - 50mA)						
Dimensions	$50(W) \times 27(H) \times 36(D)$						
Dimensions			-	(,,,,,,,,,	0(2)		
Weight			•	Module 26g			
Weight		NO		Module 26g		CII	
Weight Measuring gas	SO ₂	NO ₂	NO	Module 26g	CH ₄	CH ₄	CO ₂
Weight Measuring gas Measuring type	-		NO	Module 26g C Diffusi	EH₄ ion Type		·
Weight Measuring gas	SO ₂		NO	Module 26g C Diffusi	CH ₄	IR	IR
Weight Measuring gas Measuring type	-		NO	Module 26g C Diffusi mical Catalytic	EH ₄ ion Type combustion	IR 0~100%vol	IR 0~2000ppm
Weight Measuring gas Measuring type Measuring method Measuring range	Electrochemical	Electrochemic 0~20ppm	NO al Electrocher 0~250pp	Module 26g C Diffusi mical Catalytic of the module 10~10	EH ₄ ion Type combustion	IR 0~100%vol 0~100%LEL (0~5%vol)	IR 0~2000ppm 0~5000ppm
Measuring gas Measuring type Measuring method Measuring range Sensor life time	Electrochemical 0~20ppm > 24 month	Electrochemic 0~20ppm > 24 month	NO al Electrocher 0~250pp > 24 mon	Module 26g Continue Catalytic of the module 26g Diffusion Catalytic of the module 26g	CH ₄ ion Type combustion 10%LEL	IR 0~100%vol 0~100%LEL (0~5%vol) > 2 year	IR 0~2000ppm 0~5000ppm > 2 year
Measuring gas Measuring type Measuring method Measuring range Sensor life time Response time	Electrochemical	Electrochemic 0~20ppm	NO al Electrocher 0~250pp > 24 mon	Module 26g Continue Catalytic of the continue Catalytic of the continue Catalytic of the continue Catalytic of the continue Catalytic C	CH ₄ ion Type combustion 0%LEL year < 10 sec	IR 0~100%vol 0~100%LEL (0~5%vol)	IR 0~2000ppm 0~5000ppm
Measuring gas Measuring type Measuring method Measuring range Sensor life time Response time Accuracy	Electrochemical 0~20ppm > 24 month T90 < 35 sec	Electrochemic 0~20ppm > 24 month T90 < 50 sec	NO al Electrocher 0~250pp > 24 mon T90 < 45 s	Module 26g Continue Catalytic of the continue Catalytic of the continue Catalytic of the continue Catalytic of the continue Catalytic C	CH ₄ ion Type combustion 0%LEL year < 10 sec full scale	IR 0~100%vol 0~100%LEL (0~5%vol) > 2 year T90 < 30 sec	IR 0~2000ppm 0~5000ppm > 2 year T90 < 30 sec
Measuring gas Measuring type Measuring method Measuring range Sensor life time Response time Accuracy Sensitivity	Electrochemical 0~20ppm > 24 month	Electrochemic 0~20ppm > 24 month	NO al Electrocher 0~250pp > 24 mon	Module 26g Diffusion Catalytic of the community of the c	CH ₄ Ion Type combustion 0%LEL I year C 10 sec Full scale 6LEL	IR 0~100%vol 0~100%LEL (0~5%vol) > 2 year	IR 0~2000ppm 0~5000ppm > 2 year
Weight Measuring gas Measuring type Measuring method Measuring range Sensor life time Response time Accuracy Sensitivity Output signal	Electrochemical 0~20ppm > 24 month T90 < 35 sec	Electrochemic 0~20ppm > 24 month T90 < 50 sec	NO al Electrocher 0~250pp > 24 mon T90 < 45 s	Module 26g Diffusion of the control	EH ₄ Ion Type combustion IO%LEL I year I 10 sec Full scale 6LEL IOMA	IR 0~100%vol 0~100%LEL (0~5%vol) > 2 year T90 < 30 sec	IR 0~2000ppm 0~5000ppm > 2 year T90 < 30 sec
Weight Measuring gas Measuring type Measuring method Measuring range Sensor life time Response time Accuracy Sensitivity Output signal Operating temperature	Electrochemical 0~20ppm > 24 month T90 < 35 sec	Electrochemic 0~20ppm > 24 month T90 < 50 sec	NO al Electrocher 0~250pp > 24 mon T90 < 45 s	Module 26g Diffusion of the second of the s	CH ₄ Ion Type combustion 0%LEL I year C 10 sec Full scale 6LEL	IR 0~100%vol 0~100%LEL (0~5%vol) > 2 year T90 < 30 sec	IR 0~2000ppm 0~5000ppm > 2 year T90 < 30 sec
Weight Measuring gas Measuring type Measuring method Measuring range Sensor life time Response time Accuracy Sensitivity Output signal Operating temperature Operating humidity	Electrochemical 0~20ppm > 24 month T90 < 35 sec 0.1ppm	Electrochemic 0~20ppm > 24 month T90 < 50 sec 0.1ppm	NO al Electrocher 0~250pp > 24 mon T90 < 45 s	Module 26g Diffusion of the second of the s	EH ₄ Ion Type combustion IO%LEL I year I 10 sec Full scale I LEL IOMA So C 90%RH	IR 0~100%vol 0~100%LEL (0~5%vol) > 2 year T90 < 30 sec 1%vol 1%LEL	IR 0~2000ppm 0~5000ppm > 2 year T90 < 30 sec 3ppm 7ppm
Weight Measuring gas Measuring type Measuring method Measuring range Sensor life time Response time Accuracy Sensitivity Output signal Operating temperature	Electrochemical 0~20ppm > 24 month T90 < 35 sec 0.1ppm	Electrochemic 0~20ppm > 24 month T90 < 50 sec 0.1ppm	NO al Electrocher 0~250pp > 24 mon T90 < 45 s 1ppm nA @ 12VDC) (Ga	Module 26g Diffusion of the second of the s	EH ₄ ion Type combustion i0%LEL gyear c 10 sec full scale i6LEL i0mA ~ 50°C g90%RH emical - 10~15r	IR 0~100%vol 0~100%LEL (0~5%vol) > 2 year T90 < 30 sec	IR 0~2000ppm 0~5000ppm > 2 year T90 < 30 sec 3ppm 7ppm