

# **GS** Oxygen Sensors KE-Series

## Features:

- \* Long life 2.5~10 years in ambient air
- \* Virtually no influence from CO<sub>2</sub>, CO, H<sub>2</sub>S, NO<sub>x</sub>, H<sub>2</sub>
- \* Low cost
- \* Operates in normal ambient temperatures
- \* Stable output signal
- \* No external power supply required for sensor operation
- \* No warmup time is required

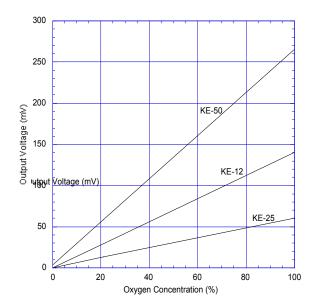
# **Applications:**

- \* Medical Anesthetic instruments, respirators, oxygen-enrichers
- \* Biotechnology Oxygen incubators
- \* Food industry Refrigeration, greenhouses
- \* Safety Air conditioners, oxygen detectors, fire detectors

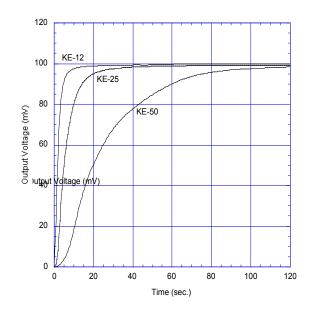
GS Oxygen Sensor KE Series (KE-12, KE-25, and KE-50) are unique galvanic cell type oxygen sensors developed in Japan in 1985. Their most notable features are long life expectency, excellent chemical durability, and no influence by CO2. KE Series oxygen sensors are ideal to meet the ever-increasing demand for oxygen monitoring in various fields such as combustion gas monitoring, the biochemical field, medical applications, domestic combustion appliances, etc.



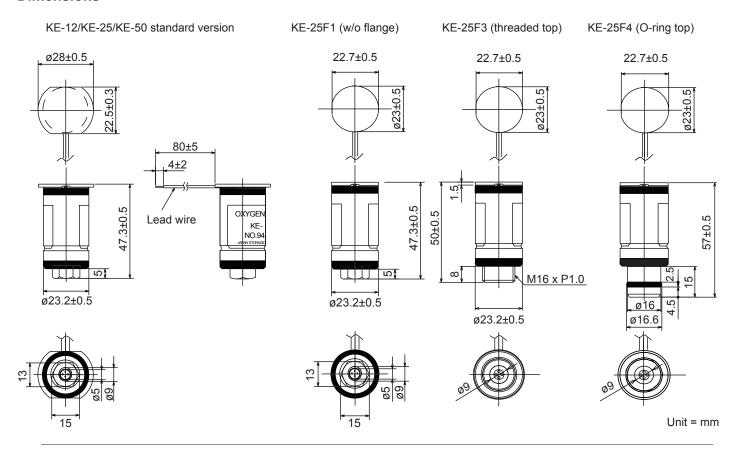
# **Sensitivity characteristics** (typical values under std. test conditions)



#### Response time (typical)



#### **Dimensions**



### Specifications

Item		Model		
		KE-12	KE-25	KE-50
Measurement range		0~100% O2		
Accuracy (Note 1)		±1% full scale	±1% full scale	±2% full scale
Operating conditions	Atmospheric pressure	811hPa~1216hPa		
	Temperature	5°~40°C		
	Relative humidity	10-~90%RH (no condensation)		
Response time (90%) (Note 2)		approx 5 sec.	approx 15 sec.	approx 60 sec
Initial output voltage under factory std test conditions		19.0~35.0mV	10.0~15.5mV	47~65mV
Factory test conditions	Atmospheric pressure	1013hPa		
	Temperature	25°±5°C		
Life expectancy at 20°C in normal air (Note 3)		approx 2.5 yrs	approx 5 yrs	approx 10 yrs

### Notes:

- 1) When calibrated at both 0% and 100% of O<sub>2</sub>, accuracy in the range from 0-100% O<sub>2</sub> shall be within  $\pm 1\%$  of full scale for both KE-12 and KE-25 and  $\pm 2\%$  of full scale for KE-50.
- 2) Sensors should be used under conditions where the air exchange is greater than 200~300ml per minute in order to obtain the response speed as shown in the Specifications.
- 3) Life expectancy at  $20^{\circ}$ C in normal air (1013hPa / 20.7%O2)is defined as the period until sensor output drops to 70% of its original value.

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