

# Maxell 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

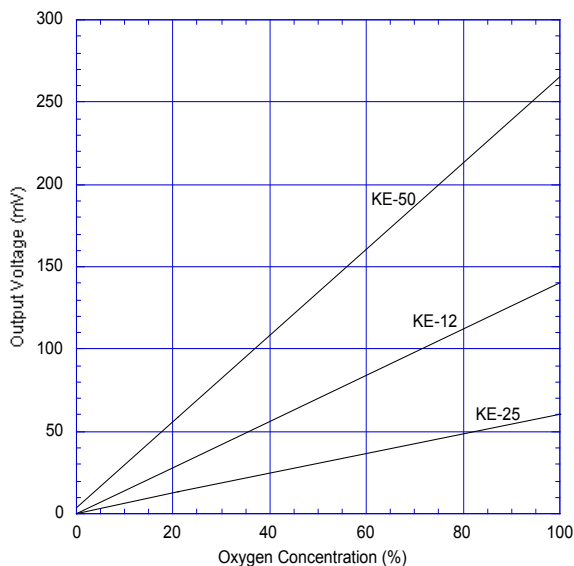
### Applications:

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

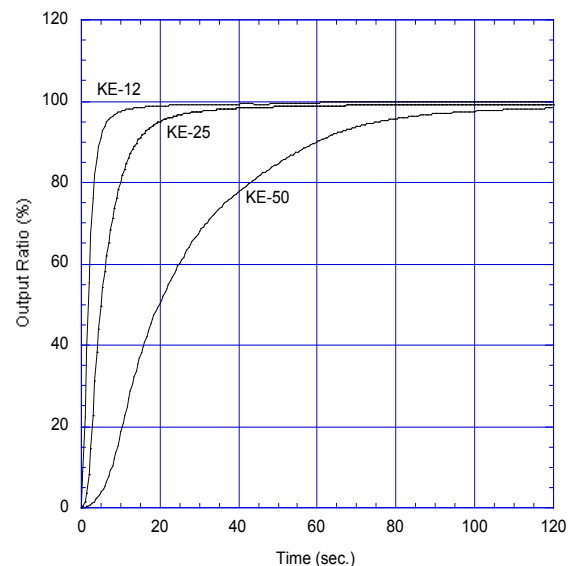
The Maxell Oxygen Sensor KE Series (KE-12, KE-25, and KE-50) are unique galvanic cell type oxygen sensors. Their most notable features are long life expectancy, excellent chemical durability, and no influence by CO<sub>2</sub>. KE Series oxygen sensors are ideal to meet the ever-increasing demand for oxygen monitoring in various fields such as combustion gas monitoring, the biochemical field, medical applications, domestic combustion appliances, etc.



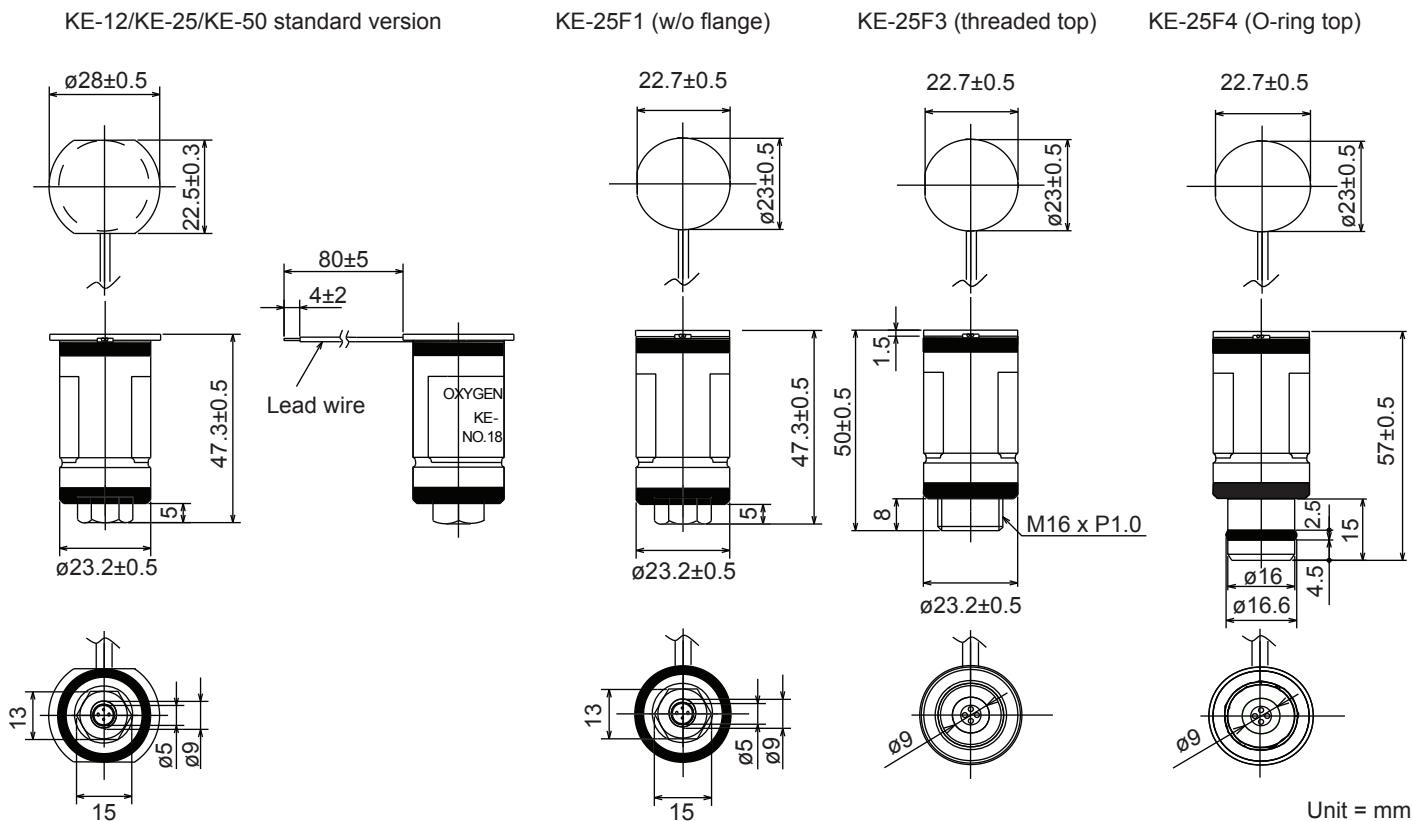
**Sensitivity characteristics** (typical values under std. test conditions)



**Response time** (typical)



## Dimensions



## Specifications

Item		Model		
		KE-12	KE-25	KE-50
Measurement range		0~100% O <sub>2</sub>		
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 ±1% of full scale for both KE-12 and KE-25 and ±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°C in normal air (1013hPa / 20.7%O<sub>2</sub>) is defined as the period until sensor output drops to 70% of its original value.

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