

# 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

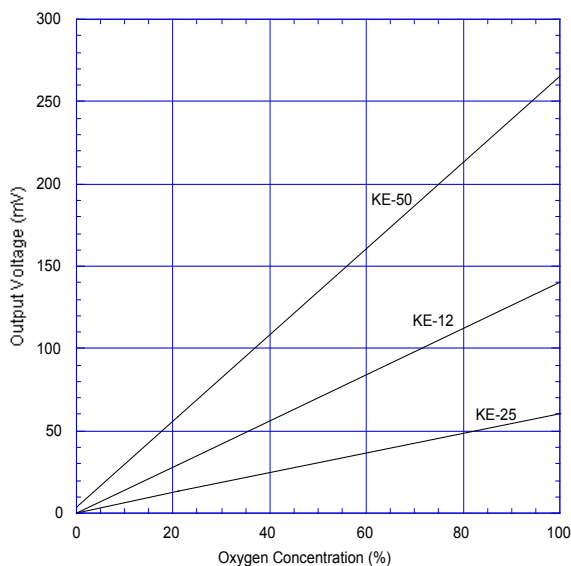
### Applications:

- \* Biotechnology - Oxygen incubators
- \* Food industry - Refrigeration, greenhouses
- \* Safety - Air conditioners, oxygen detectors, fire detectors

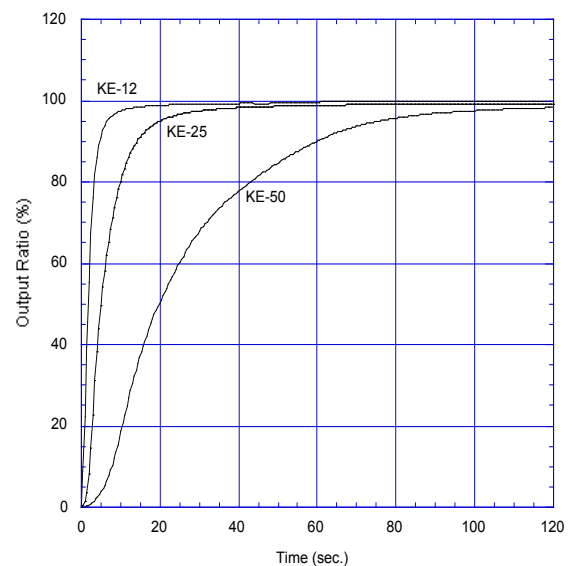
The Maxell Oxygen Sensor KE Series (KE-12, KE-25, and KE-50) are unique galvanic cell type oxygen sensors. Their most notable features are long life expectancy, excellent chemical durability, and no influence by CO<sub>2</sub>. KE Series oxygen sensors are ideal to meet the ever-increasing demand for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



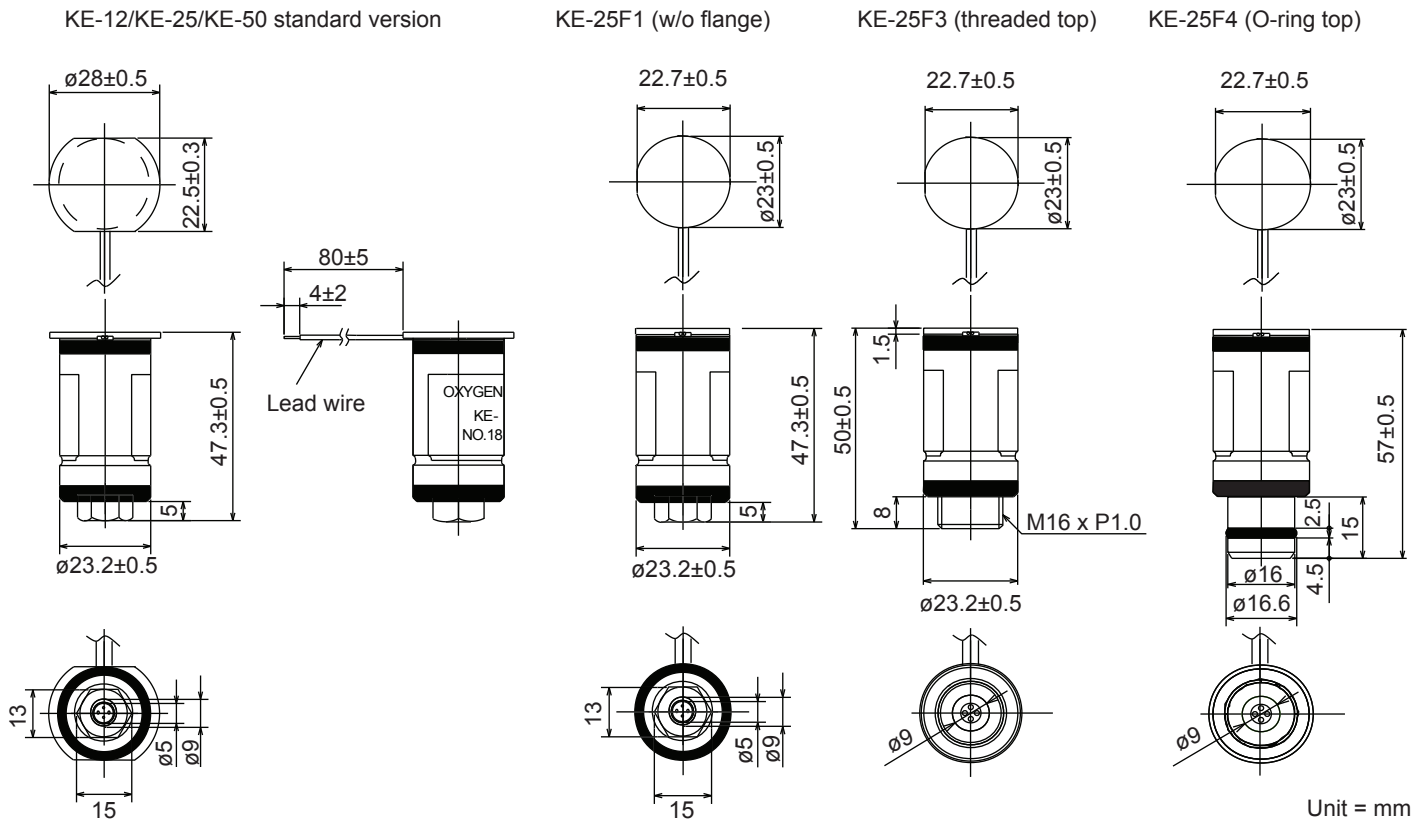
**Sensitivity characteristics** (typical values under std. test conditions)



**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.

\* Please refer to the Limited Warranty and Limitation of Liability in the *Technical Information for Maxell Oxygen Sensor KE-Series*.

\* KE-series oxygen sensors are designed, manufactured and tested for industrial application only, and that the products are not designed, manufactured, tested, or intended specifically for use in or incorporation into artificial respirators, ventilators and/or other equipment for medical application, or subassembly modules or parts thereof. KE-series oxygen sensors are not authorized for use as critical components in life support applications wherein a failure or malfunction of the products may result in injury or threat to life.

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