

Maxell Oxygen Sensors KE-Series

Features:

- * Long life - 2.5~10 years in ambient air
- * Virtually no influence from CO₂, CO, H₂S, NO_x, H₂
- * Low cost
- * Operates in normal ambient temperatures
- * Stable output signal
- * No external power supply required for sensor operation
- * No warmup time is required

Applications:

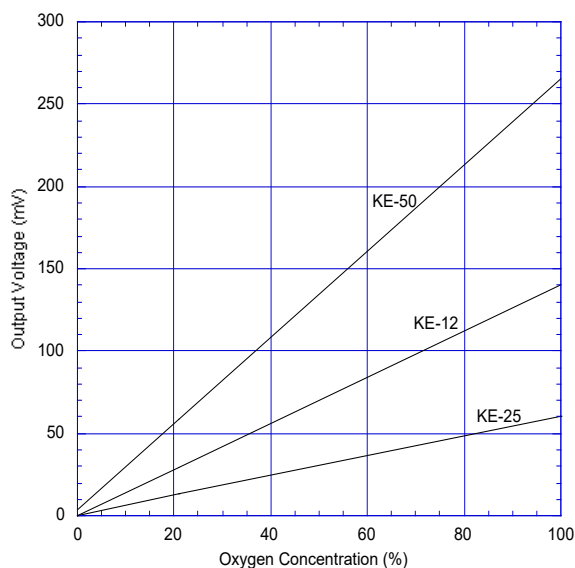
- * Biotechnology - Oxygen incubators
- * Food industry - Refrigeration, greenhouses
- * Safety - Air conditioners, oxygen detectors, fire detectors

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 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, domestic combustion appliances, etc.



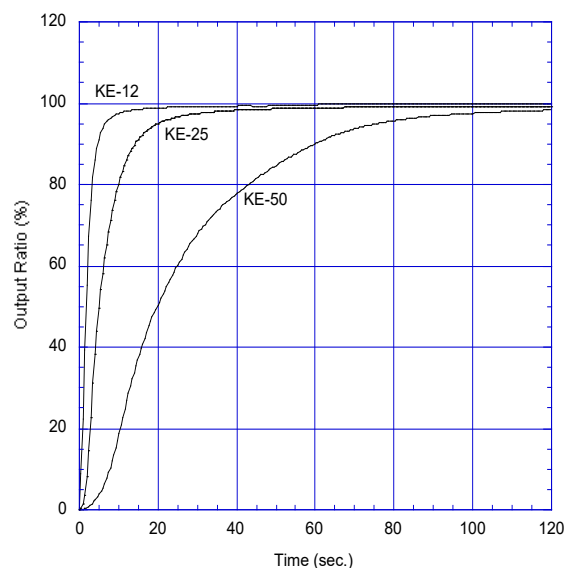
Sensitivity Characteristics:

(typical values under std. test conditions)

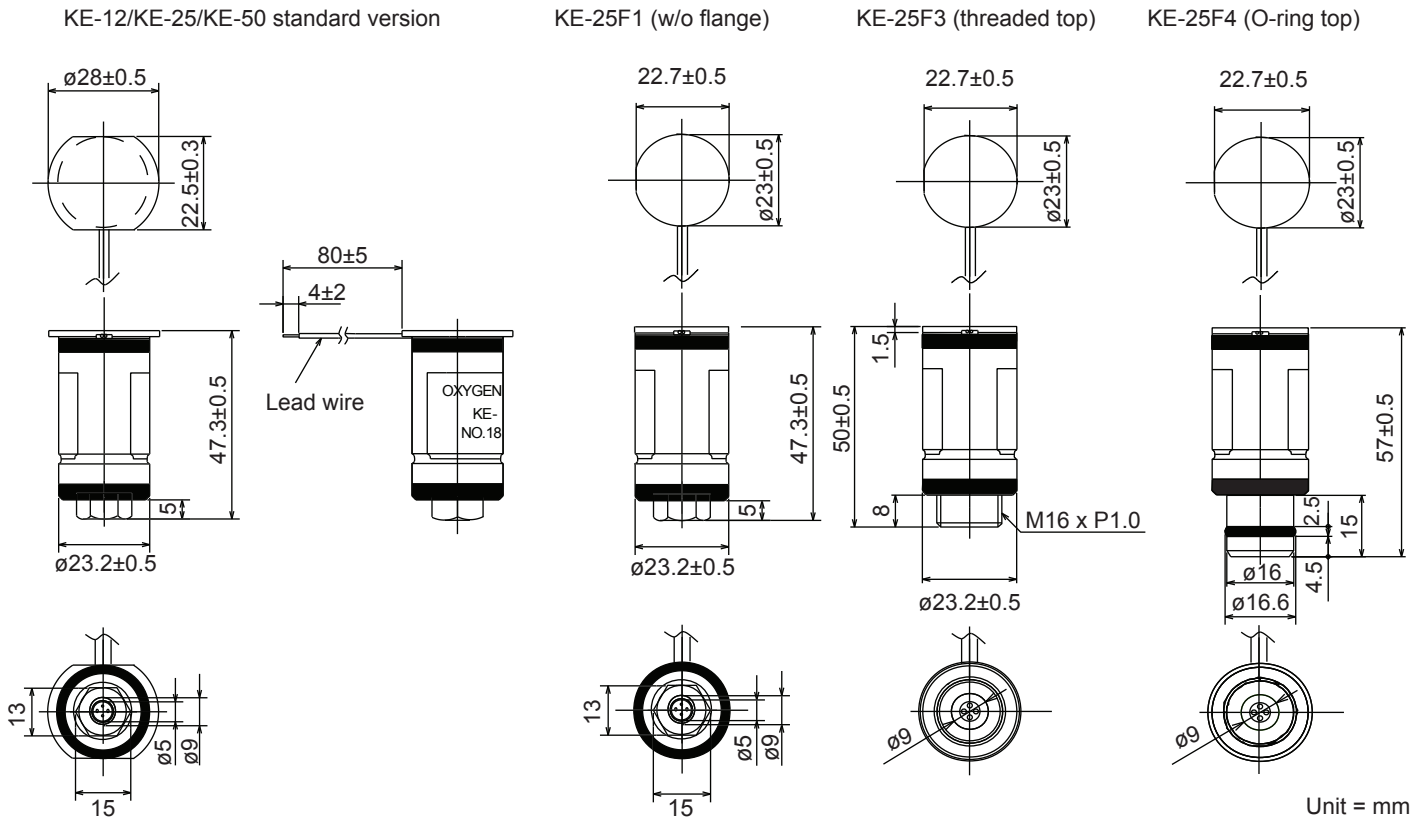


Response time:

(typical)



Dimensions:



Specifications:

| Item | Model | | |
|--|-----------------------|----------------------------|----------------|
| | KE-12 | KE-25 | KE-50 |
| Measurement range | 0~100% O ₂ | | |
| 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 O₂, accuracy in the range from 0-100% O₂ 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%O₂) 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.

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