

# Maxell Oxygen Sensor SK-25

## Features:

- \* Virtually no influence from CO<sub>2</sub>, CO, H<sub>2</sub>S, NO, H<sub>2</sub>
- \* Temperature compensation circuit included
- \* Good linearity
- \* No position dependency
- \* Stable output signal
- \* No external power supply required for sensor operation
- \* No warmup time is required

## Applications:

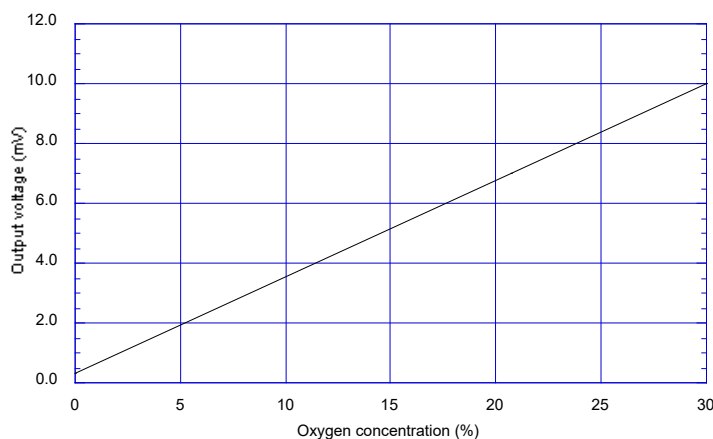
- \* Safety - Oxygen monitors
- \* Environmental controls - Combustion gas monitoring
- \* Food industry - Refrigeration, greenhouses
- \* Education – Science lab instruments

The Maxell Oxygen Sensor SK-25 is a unique galvanic cell type oxygen sensor. Its most notable features are no influence from CO<sub>2</sub>, good linearity up to 30% oxygen, and excellent chemical durability. This feature makes the sensor ideal for oxygen monitoring in various applications such as combustion gas monitoring, the biochemical field, domestic combustion appliances, etc.



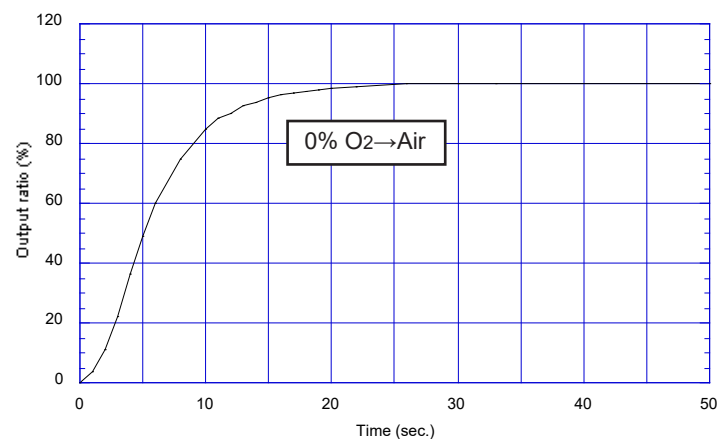
## Sensitivity Characteristics:

(typical values under std. test conditions)

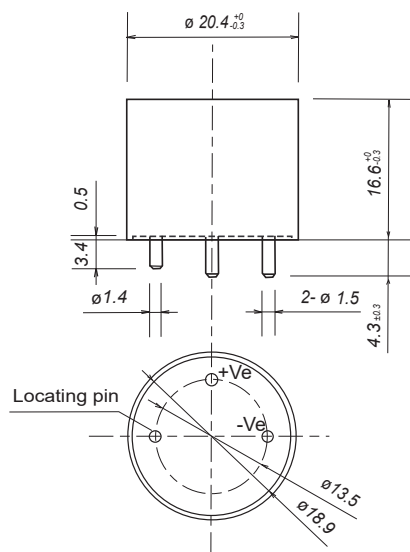


## Response time:

(typical)



### Dimensions:



u/m: mm  
If not specified, all tolerances are  $\pm 0.2$  mm

### Specifications:

Item		Model
		SK-25
Measurement range		0~30% O <sub>2</sub>
Accuracy (Note 1)		$\pm 1\%$ full scale
Operating conditions	Atmospheric pressure	1013hPa $\pm 20\%$
	Temperature	-10 $^{\circ}$ ~50 $^{\circ}$ C
	Relative humidity	0~99%RH (no condensation)
Response time (90%) (Note 2)		$\leq 15$ seconds
Initial output voltage under factory test conditions		5.5~8.5mV
Factory test conditions	Atmospheric pressure	1013hPa
	Temperature	25 $^{\circ}$ $\pm$ 5 $^{\circ}$ C
Life expectancy at 20 $^{\circ}$ C in normal air (Note 3)		approx. 3 years

### Notes:

- 1) When calibrated at both 0% and 30% of O<sub>2</sub>, accuracy in the range from 0-30% O<sub>2</sub> shall be within  $\pm 1\%$  full scale.
- 2) Sensors should be used under conditions where the air exchange is greater than 200~300ml/minute in order to obtain the response speed as specified in Table 1.
- 3) Life expectancy at 20 $^{\circ}$   $\pm$  1 $^{\circ}$ C / 60  $\pm$  5%RH in normal air (1013  $\pm$  5hPa / 20.7% O<sub>2</sub>) is defined as the period until sensor output drops to 60% of original value.

\* Please refer to the Limited Warranty and Limitation of Liability in Technical Information for Maxell Oxygen Sensor SK-25.

\* SK-series oxygen sensors are designed, manufactured and tested for industrial application only. These 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.

**NOTE:** When the sensor is shipped, blue tape covers the gas diffusion holes to minimize consumption of the sensor life during storage. Before measuring sensor output, the tape should be removed.

