

automotive

# Automotive O<sub>2</sub> Sensors

**Range includes:**  
R-17A-LVG  
R-17AVG  
R-22AVG

As used by most automotive emissions testing equipment manufacturers.



- PTB-A 18.10 and BAR97 product approval
- Accurate measurement performance
- Exceeds industry requirements
- Long life in the field
- Fast response time
- Consistent linear response
- Stable zero
- Choice of connector and thread options

The Automotive Oxygen Sensors from Viamed provide greater resistance to the effects of CO<sub>2</sub>, increasing the life of the sensor when used in exhaust emissions testing.



# Automotive O<sub>2</sub> Sensors

## Sensor models

R-17A-LVG, R-17AVG, R-22AVG

### Output range

R-17A-LVG: 7 - 11.5 mV  
R-17AVG 9 - 13 mV  
R-22AVG 9 - 13 mV  
Outputs in air at 25°C, sea level

### Range

0 to 100% O<sub>2</sub>

### Resolution

Better than 0.1% O<sub>2</sub>

### Repeatability

± 1% of full scale at constant temperature and pressure

### Linearity error

< 3% relative

### Accuracy

0% to 3.3% oxygen: +/- 0.1% absolute  
3.4% to 100% oxygen: +/- 3.0% relative

### Expected life

36 months at 20.9% O<sub>2</sub>, 25°C, 50% RH

### Response time

< 5 seconds for 90% of final value.  
< 40 seconds fall time from 20.95% to 0.1% oxygen, when 100% nitrogen applied

### Humidity

0 - 99% RH, non-condensing

### Operating temperature range

0°C to +50°C

### Temperature compensation

+25 to +40 °C: 3% relative  
0 to +50 °C: 8% relative

### Cross interference

Less than 0.1% O<sub>2</sub> response to:  
15% CO<sub>2</sub> balance N<sub>2</sub>, 10% CO balance N<sub>2</sub>,  
3000 ppm NO balance N<sub>2</sub>,  
3000 ppm C<sub>3</sub>H<sub>8</sub> balance N<sub>2</sub>, 500 ppm H<sub>2</sub>S  
balance N<sub>2</sub>, 500 ppm SO<sub>2</sub> balance N<sub>2</sub>,  
1000 ppm benzene balance N<sub>2</sub>

### Connectors

Switchcraft mini phone jack  
(R-17A-LVG, R-17AVG)  
3 pin Molex  
(R-22AVG)

### Approvals

PTB-A 18.10, BAR97

### Connecting thread

American Thread, 5/8-24 UNEF



**R-17A-LVG**  
**0110157**



**R-17AVG**  
**0110177**



**R-22AVG**  
**0110182**

Specification Subject to Change

Distributed by:



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