

automotive

# 'R' Series O<sub>2</sub> Sensors

**Range includes:**

R-17A-LV

R-17A, R-21A, R-22A

R-17AV, R-21AV, R-22AV

R-17AH, R-22AH

As used by most automotive emissions testing equipment manufacturers.



- PTB, BAR90, BAR97 and CE 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 'R' series of Oxygen Sensors from Viamed feature special Rhodium plating on the cathode resulting in greater resistance to the effects of CO<sub>2</sub>, increasing the life of the sensor when used in exhaust emissions testing.

 **VIAMED**

# 'R' Series O<sub>2</sub> Sensors

## Sensor models

R-17A-LV, R-17A, R-21A, R-22A, R-17AV, R-21AV, R-22AV, R-17AH, R-22AH

## Output range

|                                   |                |
|-----------------------------------|----------------|
| A-LV Model:                       | 7 - 11.5 mV    |
| A Models (R-17A, R-22A):          | 7 - 13 mV      |
| A Model (R-21A):                  | 9 - 14 mV      |
| AV Models:                        | 9 - 13 mV      |
| AH Models:                        | 10.5 - 13.5 mV |
| Outputs in air at 25°C, sea level |                |

|                                    |                                                                                                                                                                                                               |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Range</b>                       | 0 to 100% O <sub>2</sub>                                                                                                                                                                                      |
| <b>Resolution</b>                  | Better than 0.1% O <sub>2</sub>                                                                                                                                                                               |
| <b>Linearity</b>                   | ± 1% of full scale at constant temperature and pressure                                                                                                                                                       |
| <b>Expected life</b>               | 36 months at 20.9% O <sub>2</sub> , 25°C, 50% RH                                                                                                                                                              |
| <b>Response time</b>               | 30 seconds or less 20.9% O <sub>2</sub> to 0.1% O <sub>2</sub> :<br>(actual response of sensor is < 6 seconds 0 to 90% O <sub>2</sub> )                                                                       |
| <b>Humidity</b>                    | 0 - 99% RH, non-condensing                                                                                                                                                                                    |
| <b>Operating temperature range</b> | 0°C to +50°C                                                                                                                                                                                                  |
| <b>Temperature compensation</b>    | ± 5% of reading over operating range<br>(at thermal equilibrium)                                                                                                                                              |
| <b>Cross interference</b>          | Less than 0.1% O <sub>2</sub> response to:<br>15% CO <sub>2</sub> , balance N <sub>2</sub><br>7% CO, balance N <sub>2</sub><br>3000 ppm NO, balance N <sub>2</sub><br>3000 ppm Hexane, balance N <sub>2</sub> |
| <b>Connectors</b>                  | 3 pin Molex<br>(R-21A, R-22A, R-21AV, R-22AV, R-22AH)<br>Switchcraft mini phone jack<br>(R-17A-LV, R-17A, R-17AV, R-17AH)                                                                                     |
| <b>Approvals</b>                   | PTB, BAR90, BAR97, CE<br>EN60601 (89/336/EEC)                                                                                                                                                                 |
| <b>Connecting thread</b>           | R-17A-LV, R-17A, R-17AV, R-17AH Metric Thread, M16<br>R-21A, R-21AV American Thread, 5/8-24 UNEF<br>R-22A, R-22AV, R-22AH Metric Thread, M16                                                                  |

## Manufactured By



Specification Subject to Change

Distributed by:



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**R-17A-LV**  
0110107



**R-17A**  
0110117



**R-21A**  
0110121



**R-22A**  
0110122



**R-17AV**  
0110127



**R-21AV**  
0110131



**R-22AV**  
0110132



**R-17AH**  
0110137



**R-22AH**  
0110142



Part Number: 0190061  
Date: 04/17