

automotive

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

**Range includes:**

R17A, R17AH

R21A

R22A, R22AH

As used by most automotive emission testing equipment manufacturers.

- PTB and BAR97 product approval.
- Accurate measurement performance.
- Able to reach 0.01% ( $\frac{1}{10}$ <sup>th</sup> of industry requirement).
- 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

R17A, R17AH, R21A, R22A, R22AH

## Output range

**A Model:** 7-13 mV in air at 25°C, sea level (standard)  
**AH Model:** 10.5-13.5 mV in air at 25°C, sea level (standard)  
 Other ranges optional

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

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

**Linearity** +/- 1% of full scale at constant temperature and pressure

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

**Response time** 30 seconds or less 20.9% O<sub>2</sub> to 0.1% O<sub>2</sub>:  
 (actual response of sensor is <6 seconds 0 to 90% O<sub>2</sub>)

**Humidity** 0 to 99% RH, non-condensing

**Operating temperature range** 0°C to + 50°C

**Temperature compensation** +/- 5% of reading over operating range  
 (at thermal equilibrium)

## Cross interference

Less than 0.1% O<sub>2</sub> response to:

- 15% CO<sub>2</sub>, balance N<sub>2</sub>
- 7% CO<sub>2</sub>, balance N<sub>2</sub>
- 3000 ppm NO, balance N<sub>2</sub>
- 3000 ppm HC (Hexane), balance N<sub>2</sub>

**Connectors** 3 pin Molex (R21A and R22A, R22AH)  
 Switchcraft mini phone jack (R17A, R17AH)

**Approvals** PTB, BAR97, CE

## Connecting thread

R17A, R17AH Metric Thread, M16  
 R21A American Thread, 5/8-24 UNEF  
 R22A, R22AH Metric Thread, M16

## Manufactured by

 Teledyne Analytical Instruments



Model R17A

Part No.0110117



Model R17AH

Part No.0110137



Model R21A

Part No.0110121



Model R22A

Part No.0110122



Model R22AH

Part No.0110142

Distributed by:



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BS EN ISO 9001 - 2000  
 ISO 13485 - 2003  
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