

# automotive products



VIAMED

## 'R' Series Oxygen Sensors



see page 3...

## AN-300 Nitrogen Analyser & Accessories



see page 6...

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# VIAMED

# 'R' Series Oxygen Sensors

As used by most automotive emissions testing equipment manufacturers.

- PTB, BAR90, BAR97 and CE product approval
- Accurate measurement performance
- Exceeds industry requirements; able to reach 0.01% (1/10 industry requirement)
- Long life in the field
- Fast response time
- Consistent linear response
- Stable zero
- Choice of connector and thread options
- Custom labels for corporate identification

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.

**No minimum order value**  
&  
**no order processing charge**

**Viamed's online short-form cross reference can be used to check compatibility:**

[www.viamed.co.uk/xref](http://www.viamed.co.uk/xref)

**Alternatively, or if your oxygen sensor or equipment is not listed, please contact us and we will check our comprehensive database.**



**Free oxygen sensor disposal service**  
for the safe disposal of any of your depleted oxygen sensors



**0110107**  
**R-17A-LV**



**Output Connector:** Switchcraft  
Phone jack, 0.141"  
**Sensor Output:** 7 - 11.5 mV  
**Input thread:** Metric Thread, M16



**0110117**  
**R-17A**



**Output Connector:** Switchcraft  
Phone jack, 0.141"  
**Sensor Output:** 7 - 13 mV  
**Input thread:** Metric Thread, M16



**0110121**  
**R-21A**



**Output Connector:** Molex, 3 pin plug  
**Sensor Output:** 9 - 14 mV  
**Input thread:** American Thread,  
5/8-24 UNEF



**0110122**  
**R-22A**



**Output Connector:** Molex, 3 pin plug  
**Sensor Output:** 7 - 13 mV  
**Input thread:** Metric Thread, M16



**0110127**  
**R-17AV**



**Output Connector:** Switchcraft  
Phone jack, 0.141"  
**Sensor Output:** 9 - 13 mV  
**Input thread:** Metric Thread, M16



**0110131**  
**R-21AV**



**Output Connector:** Molex, 3 pin plug  
**Sensor Output:** 9 - 13 mV  
**Input thread:** American Thread,  
5/8-24 UNEF



0110132  
R-22AV

**TELEDYNE**  
ANALYTICAL  
INSTRUMENTS



**Output Connector:** Molex, 3 pin plug  
**Sensor Output:** 9 - 13 mV  
**Input thread:** Metric Thread, M16



0110137  
R-17AH

**TELEDYNE**  
ANALYTICAL  
INSTRUMENTS



**Output Connector:** Switchcraft  
Phone jack, 0.141"  
**Sensor Output:** 10.5 - 13.5 mV  
**Input thread:** Metric Thread, M16



0110142  
R-22AH

**TELEDYNE**  
ANALYTICAL  
INSTRUMENTS



**Output Connector:** Molex, 3 pin plug  
**Sensor Output:** 10.5 - 13.5 mV  
**Input thread:** Metric Thread, M16



0110950  
N-33

**TELEDYNE**  
ANALYTICAL  
INSTRUMENTS

**for use with AN300  
Nitrogen Analyser**

**Output Connector:** Molex, 3 pin plug  
**Sensor Output:** 7 - 13 mV  
**Range:** 0 - 20.9% O<sub>2</sub>  
(79.1 - 100% N<sub>2</sub>)

|                                 |                                                                                                                                                                                                               |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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% R.H.                                                                                                                                                            |
| <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% R.H., non-condensing                                                                                                                                                                                  |
| <b>Operating temperature</b>    | 0°C to +50°C                                                                                                                                                                                                  |
| <b>Temperature compensation</b> | ±5% of reading over operating range (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>Approvals</b>                | PTB, BAR90, BAR97, CE, EN60601 (89/336/EEC)                                                                                                                                                                   |
| <b>Warranty</b>                 | 12 months                                                                                                                                                                                                     |

Specifications in air at 25°C, sea level

# AN-300 Nitrogen Analyser

Features of the AN300 include:

- Microprocessor controlled for enhanced performance
- Large, easily-read backlit LCD display
- Auto calibration
- Battery strength indicator
- Auto diagnostics with fault codes
- Auto power off-function after ten minutes
- Coiled sensor cable extendable to 3 m
- Supplied with 8 mm Twin Hold-On Connector for most automotive tyres
- Optional 12 mm In-Line Hold-On Connector available for aircraft tyres



The AN300 Derived Nitrogen Analyser is a hand-held device designed to analyse the balance of nitrogen in vehicle tyres where nitrogen has been used as an inflation gas.

Nitrogen inflation is becoming increasingly popular for road use, as well as being used extensively in specialist applications such as aircraft and motorsport tyres.

The AN300 offers a low-cost, easy to use nitrogen analysing solution.

**The AN300 includes the following standard accessories:**



0110950

N-33 Oxygen Sensor



0121251

8v1 Twin Hold-On Connector for 8 mm valves (commonly used for automotive tyres)



0121250

1/4 NPT Thread Converter

|                                    |                                                                                       |         |
|------------------------------------|---------------------------------------------------------------------------------------|---------|
| <b>Range</b>                       | 0% to 100% N                                                                          |         |
| <b>Full scale accuracy</b>         | ± 2% at constant temperature and pressure                                             |         |
| <b>Response time</b>               | 90% of final value in less than 10 seconds                                            |         |
| <b>Operating temperature range</b> | 0° to +40°C                                                                           |         |
| <b>Power requirements</b>          | 3 x AA/LR6/MN1500 1.5V alkaline batteries                                             |         |
| <b>Battery life</b>                | 2000 hours minimum<br>(12,000 10-minute on/off cycles)                                |         |
| <b>Sensor type</b>                 | Teledyne class N-33                                                                   |         |
| <b>Sensor life</b>                 | 24 months in air                                                                      |         |
| <b>Sensor cable</b>                | Extendable to 3 metres                                                                |         |
| <b>Weight</b>                      | 420g                                                                                  |         |
| <b>Dimensions</b>                  | 140 mm (H) x 88 mm (W) x 76 mm (D)                                                    |         |
| <b>Approvals</b>                   | CE                                                                                    |         |
| <b>Connectivity</b>                | 1/4" NPT threaded sensor holder                                                       |         |
| <b>Part Number</b>                 | AN300 Nitrogen Analyser                                                               | 0111205 |
| <b>Accessories included:</b>       | N-33 Sensor                                                                           | 0110950 |
|                                    | 8v1 Twin Hold-On Connector for 8 mm valves<br>(Commonly used for automotive tyres)    | 0121251 |
|                                    | 1/4 NPT Thread Converter                                                              | 0121250 |
|                                    | 3 x AA/LR6/MN1500 1.5V alkaline batteries                                             |         |
| <b>Optional accessories</b>        | 12v1 In-Line Hold-On Connector for 12 mm valves<br>(Commonly used for aircraft tyres) | 0121252 |
|                                    | Universal mounting clamp                                                              | 0121200 |

## Additional Accessories for use with Teledyne AN300 Nitrogen Analyser

0121252



**12v1 In-Line Hold-On Connector for 12 mm valves (commonly used for aircraft tyres)**

0121180



**'V' Wall Mount**

0121181



**'V' Mount Pole Clamp**  
Small:  
14 - 25 mm clamping width

0121182



**'V' Mount Pole Clamp**  
Large:  
16 - 40 mm clamping width

0121184



**'V' Mount Rail Clamp**  
Attaches to most types of  
midrail 30 mm (H) x 10 mm (D)

0121197



**'V' Mount Pole Clamp**  
Horizontal  
10 - 40 mm clamping width

0121200



**Universal Mounting Clamp**  
Attaches to the threaded socket at the rear of the unit





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Part Number: 0190062  
Date: 01/17