



TELEDYNE ANALYTICAL INSTRUMENTS

automotive



Certified: BAR97, BAR90, PTB

Teledyne Analytical Instruments has a long and successful history in the development and supply of oxygen sensors for automotive emission testing equipment. The "R" series sensors are used by most automotive emission equipment manufacturers worldwide. We are striving to improve our sensors through aggressive research and development, assuring the highest quality products offered by any supplier of oxygen analyzers.

Recent major breakthroughs by Teledyne include the utilization of a special plating on the cathode resulting in a 200 times greater resistance to the effects of CO₂. This increases the useful life of the sensor when used in exhaust emission testing. Because of this innovation, the field failure rate for Teledyne sensors has diminished to less than 1% over the last year for hundreds of thousands of sensors shipped annually. From our clients' perspective, there are far fewer field service calls due to the oxygen sensor not functioning properly.

Teledyne is committed to maintaining competitive pricing to assure our clients benefit from the most advanced design in oxygen sensors. To demonstrate the quality of Teledyne's oxygen sensors, we have

certification from the Bureau of Automotive Repairs for BAR97, BAR90, and the PTB as a stand alone component. The response of the sensors meets or exceeds the required time response, and the quality and reliability of the sensors are beyond standard requirements. In addition, Teledyne is an ISO-9001 certified company, dedicated to quality, performance and customer satisfaction.

Features

- PTB, BAR97, and BAR90 product approval
- Accurate measurement performance
- 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

Automotive O₂ Sensor Specifications

Sensor models:

R17A, R21A & R22A

Output range:

7 - 13 mV in air at 25° C, sea level (standard)
Other ranges optional

Range:

0 to 100% O₂

Resolution:

Better than 0.1% O₂

Linearity:

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

Expected life:

36 months at 20.9% O₂, 25° C, 50% RH

Response time

30 seconds or less 20.9% O₂ to 0.1% O₂: (actual response of sensor is < 6 seconds 0 to 90% O₂)

Humidity:

0 to 99% RH, non-condensing

Operating temperature range:

0° to 50° C

Temperature compensation:

+/-5% of reading over the operating range (at thermal equilibrium)

Cross interference:

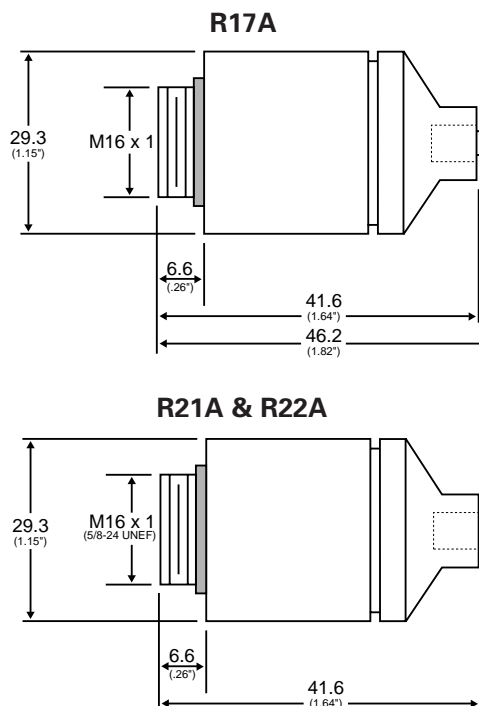
Less than 0.1% O₂ response to:
15% CO₂, balance N₂
7% CO, balance N₂
3000 ppm NO, balance N₂
3000 ppm HC (Hexane), balance N₂

Connectors:

3 Pin Molex (R21A & R22A)
Switchcraft mini phone jack (R17A)

Approvals:

PTB, BAR97, BAR90, CE



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NOTE: Specifications and features will vary with application. The above are established and validated during design, but are not to be construed as test criteria for every product. All specifications and features are subject to change without notice.

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