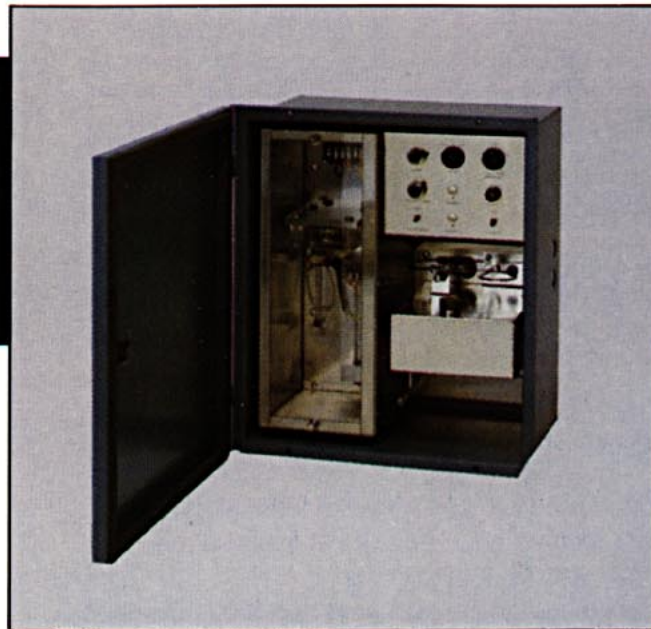


## Model

# 306WAM

## Trace Oxygen Analyzer



The Model 306WAM trace oxygen analyzer can detect even the most minute presence of oxygen contamination in pure gases and gas mixtures. The Model 306WAM is ideal for use in numerous industrial applications such as semiconductor manufacturing, air liquefaction, process monitoring of gaseous monomers (vinyl chloride, propylene, butadiene, isoprene and ethylene), inert atmosphere blanketing, gas purity certification, nuclear fuel processing, inert gas generators, exotic metal welding, polymerization processes and many other applications.

### High Accuracy and Sensitivity

The Model 306WAM features a patented electrochemical sensor which is specific to oxygen. This unique transducer, which requires minimal maintenance, provides full scale measuring as low as 0-500 parts-per-billion with  $\pm 2\%$  accuracy and 90% full scale response in less than 1 minute. Cell output is insensitive to flow rate changes within the operating range of the flowmeter, and is unaffected by the presence of other paramagnetic gases.

### Simple Operation

The oxygen sensor has an absolute zero; thus, no zero adjustments are necessary. A built-in calibrator permits the instrument to be calibrated while on-stream and eliminates the need for special calibration gases.

### Welded, Stainless-Steel Sample System

The Model 306WAM utilizes a welded stainless-steel sample system, making it the most durable trace oxygen analyzer on the market. This rugged construction insures leak-free operation and resistance to damage from corrosion, and guarantees many years of quality service with minimum maintenance.

### Explosion-Proof Construction

For special applications, the instrument can be supplied completely explosion-proof, or with only the analysis unit mounted in an explosion-proof case. These explosion-proof cases conform to the requirements of Class I, Division 1, Group D hazardous areas.

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## Options and Special Systems

The Model 306WAM is provided with three standard ranges of 0-10/0-100/0-1000 parts-per-million (ppm) O<sub>2</sub>. Optional ranges are available as low as 0-500 parts-per-billion (0-0.5 ppm) up to 0-5000 ppm O<sub>2</sub>. Other options include: Digital readout, range indicator lights, one or two alarms, current or voltage output (0-1 VDC is standard) and isolated output.

In addition to standard features and options, Teledyne also provides special sensors, custom-engineered analyzers and complete monitoring systems to satisfy unique application requirements.

## Features

- Continuous online monitoring of trace oxygen
- Three switch-selectable ranges: 0-10, 0-100 and 0-1000 ppm O<sub>2</sub> (standard)
- Optional ranges from 0-0.5 ppm to 0-5000 ppm O<sub>2</sub>
- Welded, stainless-steel sample system
- High sensitivity and extremely accurate
- Analysis is specific to oxygen—unaffected by other paramagnetic gases or hydrocarbons
- Insensitive to changes in flow rate
- Analog meter readout (digital readout optional)
- Built-in calibrator
- 0-1 VDC signal output
- 1-5, 4-20 or 10-50 mADC output (optional)
- Panel-mounted enclosure
- Explosion-proof versions available

## Model No. Designations

Model No.	Design Features
306WAM	Standard enclosure
307WAM	Analysis unit only explosion proof; control unit mounts remotely
308WA	Completely explosion proof (meter optional)
356WAM	Standard enclosure. No built-in calibration; requires span gas
357WAM	Analysis unit only explosion proof; control unit mounts remotely. No built-in calibration; requires span gas
358WA	Completely explosion proof. No built-in calibration; requires span gas (meter optional)

## Options

- Special ranges from 0-0.5 to 0-5000 ppm O<sub>2</sub>
- LCD readout with range indicator lights
- 1-5, 4-20 or 10-50 mADC output
- Millivolt DC output
- Isolated output
- One or two alarms
- Purged enclosure
- Explosion-proof housings
- 100 or 220 VAC operation
- Special sensors, custom analyzers and complete gas analysis systems for unique requirements

## Specifications

### Standard Ranges:

0-10, 0-100 and 0-1000 ppm O<sub>2</sub>  
(ranges from 0-0.5 to 0-5000 ppm are optional)

### Sampling System:

Wetted parts: 304 welded stainless steel

### Sensitivity:

1% of low range

### Accuracy:

±2% of low range

### Response and Recovery Time:

90% in less than 1 minute (for lowest range)

### Operating Temperature Range:

+40° F to +120° F (+5° C to +49° C)

### Sample Requirements:

**Flow** 150 cc/min\*

**Pressure** 1 to 150 psig

**Temperature** +60° F to +100° F (+15° C to +38° C)

### Power Requirement:

115 VAC, 50/60 Hz, 150 W (other voltages available)

### Alarms (optional):

Adjustable single or dual alarm setpoints

### Recorder Signal Output:

**Voltage** 0 to 1 VDC or less

**Current** 1-5, 4-20, 10-50 mADC (optional)

### Local Readout:

Analog meter (except 308WA and 358WA) Digital meter (optional)

### Net Weight

65 lbs. (29.5 Kg) — 306WAM

90 lbs. (40.9 Kg) — 307WAM

\*Specified flow rate required only during calibration. Measuring cell is not sensitive to changes in flow rate.

Specifications/Features: vary with application; are established and validated during design; are not to be construed as test criteria for every product manufactured; and subject to change without notice.

## Dimensions

Inches (h x w x d) 18.2 x 16 x 10

Centimeters (h x w x d) 46.4 x 40.6 x 25.4

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