## UFO-130-2 Oxygen Sensor



Teledyne Analytical Instruments has a long history of developing unique solutions for challenging applications.

The 2-year Ultra Fast Oxygen sensor (UFO-130-2) is a prime example of this capability. Specifically developed as a reliable and economical alternative to expensive paramagnetic and optical sensors, the Teledyne UFO utilizes fuel cell technology which is inherently rugged and forgiving.

Unlike other sensors, the UFO is insensitive to shock, vibration, and position, and will withstand repeated exposure to water without damage. With an average response time of 100 milliseconds, the UFO is one of the fastest sensors ever developed for this application.

Ideally suited for use in Metabolic and Critical Care Monitors, the UFO is also a welcome addition to Clinical Exercise and Sports Medicine as well as other applications where Breath by Breath analysis is critical.

Available with a 2 x 2 inch PC board and weighing only 4.0 ounces, the UFO can be mounted in almost any location.

Since the UFO already meets ISO 7767 (1997), ASTM F1462-93, and CE Medical Devices Directives, very little additional work is needed to integrate the sensor into new or existing products.

For additional information on this or other Teledyne oxygen sensors, please contact us using the information noted on this data sheet.

## UFO-130-2 Specifications

Output:  $3.4 - \pm 0.4V$  at 100% oxygen, 1 ATM

Range: 1 – 100% oxygen

Accuracy: Less than  $\pm 1.0\%$  oxygen at constant

temperature and pressure, when calibration in air and 100% oxygen

Resolution: 0.1%

Response time: 10 - 90% OS step change in <130 MS

 $(@200 \pm 100 \text{ cc} / \text{min gas flow rate})$ 

Response time will degrade at slower

flow rate.

Cross interference: Referenced to ISO7767 (May, 1997)

ASTM-F1462/93

Operating humidity: 0 - 99% RH (non-condensing)

Operating ambient

pressure: 550 – 800 mm Hg

Operating relative Continuous: -100

pressure:

Continuous: -100 to +100 mm Hg to

ambient pressure

Intermittent: Up to -200 mm Hg for

less than 5 seconds

Operating temp.: Continuous: 15 - 40°C

Intermittent: Up to 50°C for less than

2 hours per day

Power supply: +11.8 VDC to +16.0 VDC

-11.8 VDC to -16.0 VDC

Power consumption: Less than 200 mW

Weight: Sensor: <2.5 oz

Electronics board: <1.5 oz

Dimensions: Sensor: 2 5/8" L x 1 3/16" W

Electronics Board: 2" x 2"

Sensor life expectancy: 24 months in air @ 25°C 50% RH

Sensor storage temp.: 0 - 40°C

Gas inlet connection: 1/16" OD tube
Gas outlet connection: Luer connector

Standard: Meets ISO7767 (May, 1997) ASTM

F1462/93

## TELEDYNE ANALYTICAL INSTRUMENTS

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## Warranty

Instrument is warranted for 1 year from date of shipment against defects in material or workmanship.

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.