



**TELEDYNE**  
**ANALYTICAL INSTRUMENTS**  
A Teledyne Technologies Company

# Model 3110

Portable Oxygen Analyzer  
Trace/Percent, Intrinsically Safe



# Model 3110 Portable Oxygen Analyzer

## GENERAL DESCRIPTION

The Model 3110 represents the new generation of portable trace and percent oxygen analysis capability.

The 3110 combines a rugged, portable analyzer design with the high reliability of Teledyne trace and percent level sensors. This ensures highly accurate ppm/percent oxygen readings in a variety of background gases – including hydrocarbons. The batteries supply at least 100 hours of continuous power to the analyzer, with a low-battery indicator LED.

The analyzer includes quick-disconnect fittings to take measurements without hassle and can be equipped with an external sample system. The microprocessor-based electronics provide accurate, high resolution readings and easy-to-use features.



### Built for Reliability and Performance

Model 3110 comes standard with a heavy plastic carrying case with foam interior.

## APPLICATIONS

- Air separation and liquefaction
- Pure gaseous hydrocarbon stream monitoring
- Semiconductor manufacturing
- Protective atmosphere blanketing of primary liquid feedstocks and flammable liquids
- Process analysis of gaseous monomers – vinyl chloride, propylene, butadiene, isoprene, or ethylene
- Gas purity certification
- Glove box or pipeline leak detection
- Natural gas treatment and transmission
- Catalyst protection
- Inert gas welding of exotic metals
- Wave and reflow soldering
- Heat treating and bright annealing
- Nuclear fuel processing and isotope separation
- Analysis of chemical reactions
- Headspace gas analysis
- Crystal growth
- Plastics manufacturing

## FEATURES AND BENEFITS

- Intrinsically safe, FM/FMc or ATEX approved.
- Digital meter readout
- 0-1 VDC output, data logging capabilities
- Ideal for measuring O<sub>2</sub> in natural gas and a variety of other background gases
- Long-life, maintenance-free, Micro-fuel Cell oxygen sensor
- Universal AC charger

## OPTIONS

- Real-time data-logging capabilities with digital output that can be downloaded directly to a PC
- Stainless steel quick disconnect gas fittings
- Sample system consisting of coalescing filter, needle valve, flow meter, fittings and tubing suitable for trace/percent O<sub>2</sub> analysis
- Insta-trace for fast recovery after installation
- NG option: H<sub>2</sub>S and sulfur resistant sensor

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## SPECIFICATIONS

<b>Ranges:</b>	3110:	0-10 ppm to 0-25% O <sub>2</sub>
	3110XL:	0-2 ppm to 0-25% O <sub>2</sub>
	3110P:	0-1% to 0-25% O <sub>2</sub>
<b>Response Time:</b>	Trace ranges (with B-2C sensor): < 60 seconds or less Percent ranges (with B-1 sensor): < 7 seconds	
<b>Operating Temperature:</b>	32 to 104 °F (0 to 40 °C)	
<b>Reproducibility:</b>	±1% at constant temperature	
<b>Sensor Type:</b>	Micro-fuel Cell	
<b>System Power:</b>	NiCad batteries, AC adapter included for battery charging 110/220 VAC 50/60 Hz, 0.25A	
<b>Weight:</b>	6 lbs. (2.71 kg)	
<b>Approval:</b>	Factory Mutual (FM/FMc), intrinsically safe, Class I Div 1 Groups A-D T6 ATEX, intrinsically safe, Ex ia IIC T3 CE marked	
<b>Battery:</b>	Ni-Cad, >100 hours per charge, 5-year expected life	



Model 3110 is available with an optional sample system consisting of coalescing filter, SS needle valve, flow meter, flexible tubing and fittings



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## Warranty

Instrument is warranted for one year 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.

