

# **TELEDYNE ANALYTICAL INSTRUMENTS**



## **MODEL 3000PA** *Process Percent Oxygen Analyzer*

Teledyne's Model 3000PA brings percent oxygen analysis to new heights of precision. Using advanced microprocessor technology, this model makes the task of percent oxygen analysis easier, faster and more accurate than ever before. Simple menu choices, membrane command switches and a large LED display make setup and operation of a 3000PA clear and quick.

### **Analysis Ranges**

Three user-configurable ranges are standard, with excellent linearity of analysis precluding recalibration when changing ranges. Two fully programmable concentration alarms provide the versatility to satisfy nearly any requirement. All features offer next-generation engineering to assure the 3000PA provides years of operational service.

### **Outputs For Data**

Standard 0-1 VDC outputs are provided for oxygen measurements and range identification. For two-way communication, an RS-232C serial interface is incorporated to converse with a host computer for remote monitoring and control of all functions. Configuration modifications and analysis results are as close as your computer.

### **Ambient Air Calibration**

The high-accuracy and fast response of Model 3000PA is only surpassed by its ability to calibrate without the assistance of support gases. The Micro-fuel Cell produces an output that is linear from 0 ppm to 100% O<sub>2</sub>, enabling the use of ambient air for calibration.

### **Custom Engineering**

The 3000PA can be ordered as a standard unit or as part of a larger analytical system. Teledyne can also supply special sensors, custom engineered analyzers, and complete monitoring systems to satisfy unique applications.

### **Advantages**

- Linearity of analysis across 3 user-selectable ranges
- Remote access to all functions from computer
- Ambient air calibration
- AutoRanging to follow process upsets

### **Applications**

- Air separation and liquefaction
- Pure, gaseous hydrocarbon stream monitoring
- Emissions monitoring
- Protective atmosphere blanketing of primary liquid feedstocks and flammable liquids
- Process monitoring of gaseous monomers - vinyl chloride, propylene, butadiene, isoprene, or ethylene
- Gas purity certification

# MODEL 3000PA PERCENT OXYGEN ANALYZER

## Standard Features

- Three user-selectable ranges plus cal range (0-25%)
- Signal output: 0-1 VDC
- Programmable Auto Ranging
- Range ID output: 0-1 VDC
- Range ID contacts (Quantity 4). Form A normally open contacts, 3A resistive
- Two fully-adjustable concentration alarm points with programmable relay function. Form C contacts, 3A resistive
- Programmable auto cal/zero. Form A normally open contact relay signals
- Remotely initiated cal/zero via customer supplied 24 VDC signal
- Self diagnostics with Form C failure alarm contacts
- Full duplex RS232 communication link
- Five digit oxygen concentration LED display
- Backlit 2 x 20 line alphanumeric VFD for setup and diagnostics
- Sampling system: nylon with brass fittings
- Sample flow indicator
- Universal power supply: 85-250 VAC 47-63 Hz

## Options

- C Auto cal/zero with integrally mounted control valves
- M Isolated 4-20 mADC signal output  
Isolated 4-20 mADC range ID output
- S 316 stainless steel sampling system
- K 19" Rack Mount with either one or two control units

## Specifications

Ranges:	3 user definable ranges from 0-1% to 0-100%
Calibration range:	0-25%
Sensor:	Class B-1
Alarms:	One system failure alarm contact to detect power failure. Two adjustable concentration threshold alarms with fully programmable set points
Accuracy:	± 2% of FS at a constant temperature ± 5% of FS over operating temperature range (once temperature equilibrium has been reached)
Response:	(90% of FS) at 77°F (25°C) 10 seconds
Operating temp:	32°F to 122°F (0°C to 50°C)
Signal output:	Analytical measurement - 0-1 VDC
Range ID output:	0-1 VDC
Analysis display:	5 digit red LED, 3/5" high numerals
Menu display:	20 character, 2 line alphanumeric VFD screen
Data lines:	Bi-directional RS-232C serial interface
Power requirements:	Universal AC input ranges - 85 to 250 VAC, 47-63 Hz
Sample connections:	User specified 1/4" or 6mm fittings
Area classifications:	General purpose
Mounting:	Flush panel mount
Dimensions:	8.70" W x 6.96" H x 12.2" D 10.79" W x 7.46" H (panel)

## TELEDYNE ANALYTICAL INSTRUMENTS

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## Warranty

Instrument is warranted for 1 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.

