

High Sensitivity Trace Oxygen Analyzer

3000TA-XL

- 0-1 ppm oxygen
- No scrubbers
- No zero gas
- No maintenance
- No hassle

Teledyne's Model 3000TA-XL represents a new generation of precision, cost effective instruments specifically designed to measure trace oxygen in the 0-1 ppm region. Drawing on the solid performance of Teledyne's highly successful 3000 series platform, the 3000TA-XL provides the user with a wide variety of performance features and options to satisfy virtually any application.

FLEXIBILITY

The analyzer offers three dynamic, user-configurable ranges and can be calibrated in any range. Two fully programmable concentration alarms and relays provide the versatility to satisfy nearly any requirement.

CONVENIENCE

The analyzer comes standard with two sets of analog outputs, 0-1 VDC and isolated 4-20 mADC for oxygen concentration and range identification. Additionally, a bi-directional RS-232C serial communication interface provides for remote monitoring and control of span and zero functions.

MAINTENANCE FREE SENSOR

The heart of the 3000TA-XL analyzer is Teledyne's micro-fuel cell sensor that sets the industry standard for oxygen analysis. The unit incorporates the B-2CXL sensor, which is specifically designed for 0-1 ppm full scale oxygen analysis applications. The micro-fuel cell is specific to oxygen and can be used in a variety of background gases including hydrocarbons. With no electrolyte to change or electrodes to clean, it is maintenance free.

APPLICATIONS

- Air liquefaction and separation
- Pure, gaseous hydrocarbon stream monitoring
- Semiconductor manufacturing
- Protective atmospheric blanketing of primary liquid feedstock and flammable liquids
- Process monitoring of gaseous monomers
- Gas purity certification



OTHER OXYGEN ANALYZERS AVAILABLE FROM TELEDYNE

3000TA-XLEU*	Flush panel mounting, high sensitivity
3000TA	Flush panel mounting
3000TB	Bulkhead mounting
3000TBEU*	Bulkhead mounting
3010TA	Split version, flush panel mounting control unit, explosion proof analysis section
3010TB	Split version bulkhead mount control unit, explosion proof analysis section
3010TAC	Split version, flush panel mounted control unit, CENELEC approved
3010TBC	Split version, bulkhead mount control unit, CENELEC approved
3020T	Totally explosion proof

*CE marked product

CUSTOM ENGINEERING IS TELEDYNE'S STRONG SUIT

The 3000TA-XL can be ordered as a standard unit or as part of a larger analytical system. With over 40 years of analytical instrument experience, Teledyne supplies sensors, custom engineered analyzers and complete monitoring systems to satisfy unique applications.

ADVANTAGES

- 0-1 ppm full scale capability
- Linearity of analysis across three user-selectable ranges
- Remote access to auto span and auto zero functions
- Autoranging to follow process upsets
- Maintenance-free sensor

TELEDYNE ANALYTICAL INSTRUMENTS

SENSORS ○ ANALYZERS ○ SYSTEMS ○ SCIENTIFIC SOLUTIONS

STANDARD FEATURES

- Class B-2CXL micro-fuel cell sensor
- Three user-selectable ranges plus cal range
- Signal output: 0-1 VDC & isolated 4-20 mADC
- Programmable autoranging
- Range ID output: 0-1 VDC & isolated 4-20 mADC
- Range ID contacts (quantity 4) Form A normally open contacts, 3A resistive
- Two fully adjustable concentration alarm set points with programmable relay functions, Form C contacts, 3A resistive
- Calibration contact span/zero, Form A normally open contact, 3A resistive
- 12 VDC output to drive remotely operated calibration valves (Customer supplied valves and 24 VDC signal to instrument)
- Self diagnostics with Form C failure alarm contacts
- Full duplex RS-232C communication link
- Five digit oxygen concentration LED display
- 2x20 alphanumeric vacuum fluorescent display for set up and diagnostics
- 316 stainless steel sampling system
- Sample flow indicator and control valve
- Universal power supply: 85-230 VAC / 50-60 Hz

OPTIONS

- V Vacuum service
- K 19" rack mount with either one or two units mounted side by side

SPECIFICATIONS

Ranges: 3 range customer selectable (Minimum 0-1 ppm FS)
Calibration range: Unit may be calibrated in any range up to 25%

Accuracy: +/-2% of FS at a constant temperature; +/-5% of FS over operating temperature range (once temperature equilibrium has been reached; except 0-1 ppm scale which is +/-0.2 ppm)
Sensitivity: 0.5% of FS
Response time: 90% of FS at 77°F (25°C)
10 seconds for 0-1000 ppm or higher ranges
60 seconds for 0-10 ppm range
100 seconds for 0-1 ppm range
Operating temp: 50° to 95°F (5° to 35°C)
Signal output: Analytical measurement 0-1VDC and isolated 4-20mADC
Range ID output: 0-1VDC and isolated 4-20mADC
Max. load impedance: 4-20mA isolated output -- 1000 ohms
Analysis display: 5 digit red LED, 3/5" high numerals
Menu display: 20 character, 2 line vacuum fluorescent
Data lines: Bi-directional RS-232C serial interface, baud rate 2400
Power requirements: Universal AC input ranges, 85 to 230VAC, 50 / 60 Hz
Max. power consumption: 20 VA
Oxygen sensor: Micro-fuel cell, Class B-2CXL
Sample gas inlet pressure: Min 2-3 psig
Wetted parts: 316 stainless steel
Sample inlet connection: 1/4" VCR
Area classification: General purpose
Mounting: Flush panel mount
Dimensions: 8.70" W x 6.96" H x 12.2" D (case)
10.79" W x 7.46" H (front 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.
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