

# TELEDYNE ANALYTICAL INSTRUMENTS



## 7320

### Infrared Gas Analyzers



## 7300A

- Expanded measurement capability
- Patented detector design

Teledyne's 7300 series of non-dispersive infrared (NDIR) gas analyzers features fast response, high accuracy, sensitivity, stability, and excellent linearity. The cost competitive measurement solutions are due in part to the uniquely designed and patented IR detector.

The 7300 Series can be provided in a variety of configurations.

- 7300A - Flush panel or rack mount
- 7300B - NEMA 4 wall mount (suitable for Div 2 or Eex(p) purge)
- 7320 - Fully explosion proof design (Class I, Division 1, Group B)

The heart of these microprocessor-based analyzers is a temperature compensated, hermetically sealed, steady state thermopile detector integrated into an IR photometric bench.

This design eliminates the traditional motor driven chopper wheel, signal conditioning circuitry, and complex optics resulting in a compact and rugged analyzer. The optical detection bench has been qualified for critical life support systems in space suits, shuttles, and space station Freedom.

The Series 7300 NDIR Analyzers are supplied with the following standard features:

- Three programmable ranges with auto-ranging capabilities
- Auto-calibration software
- 4-20 mA DC isolated and 0-1 VDC outputs
- RS-232C bi-directional serial interface
- Dual concentration alarms and system failure alarm
- Self-diagnostic check of system electronics

**Built for Reliability and Performance**

# Series 7300 Specifications

## Applications

- Chemical and petrochemical processes
- Combustion and flue gas processes
- Pulp and paper
- Vapor recovery systems
- Enhanced oil recovery
- Food, agriculture, medical
- Metals, ceramics and heat treating atmospheres
- Landfill gas power stations
- Emissions testing (part of the mobile stations)
- Carbon dioxide scrubber efficiency
- CO / CO<sub>2</sub> / C<sub>2</sub>H<sub>4</sub> monitoring in oxyhydrochlorination process in EDC manufacturing

## Specifications

Accuracy:	±2% of full scale at constant temperature or better	Outputs:	4-20 mA DC iso or 0-1 VDC negative ground
Linearity:	±1% of full scale	Serial output:	RS-232C bi-directional user interface
Repeatability:	±1% of full scale	Auto-calibration:	User programmable auto-cal software standard
Drift:	±1% of full scale per week at constant temperature	Alarms:	Dual alarms + system failure alarm
Response time:	90% of full scale in less than 5 seconds	Self-diagnostics:	Self-check of analyzer electronics
Span stability:	Less than ±1% of full scale change per month	Operating temperature:	5 to 45°C (41 to 113°F)
Noise:	±1% of full scale	Ambient temp:	5 to 45°C (41 to 113°F)
Analysis ranges:	Typical Gas Analysis Applications CO <sub>2</sub> 0-1% to 0-100% CO 0-5% to 0-100% CH <sub>4</sub> 0-10% to 0-100% C <sub>2</sub> to C <sub>5</sub> 0-5% to 0-100% (For lower ranges and other gases, contact factory.)	Power supply:	110 VAC or 230 VAC, 50 Hz or 60 Hz (Specify at the time of order)
Ranges:	Three user programmable ranges with auto-ranging Ratio of 4:1 for low to high range (i.e. 0 - 5 up to 0 - 20% CO)	Wetted parts:	Application dependent
Range ID:	Via range ID contacts		

## Area Classification / Dimensions

7300A:	Non-hazardous 7.5" H x 10.8" W x 13.7" D
7300B:	Non-hazardous (can also be purged to meet Div 2 or Eex(p) areas) 11.81" W x 20.28" H x 8.9" D
7320:	Class I, Division 1, Groups B, C, D 25.63" H x 5.25" W x 11" D

## 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.

