



Technical Specifications *

Accuracy:	< $\pm 1\%$ of FS range under constant conditions
Analysis:	0-10 ppm, 0-100, 0-1000, 0-1%, 0-25% FS ranges; auto-ranging or manually lock on single range
Application:	Oxygen analysis from 100 ppb to 1% in inert, helium, hydrogen, mixed and acid (CO ₂) gas streams
Approvals:	CE
Area Classification:	General purpose
Alarms:	2 adjustable form C relay contacts non-latching; "weak sensor" indicator; power failure; system failure
Calibration:	Certified gas of O ₂ balance N ₂ approximating 80% of analysis range or one range higher than analysis range
Compensation:	Barometric pressure and temperature; optional temperature controlled heated sample system
Connections:	1/4" compression tube fittings
Controls:	Water resistant keypad; menu driven range selection, calibration, alarm and system functions
Data Acquisition:	Selectable data point intervals
Display:	Graphical LCD 5 x 2.75; resolution .01 ppm; displays real time ambient temperature and pressure
Enclosure:	Painted aluminum 7.5" x 10.8" x 12.25" panel mount
Flow Sensitivity:	None between 1-5 SCFH, 2 SCFH recommended
Linearity:	> .995 over all ranges
Pressure:	Inlet - regulate to 5-30 psig, max 100 psig; vent - atmospheric not to exceed -14" water column
Power:	Universal; specify 110 or 220 VAC with optional heater
Range ID:	1-5V output with 1V representing the lowest range
Recovery Time:	60 seconds in air to < 10 ppm in < 1 hr on N ₂ purge
Response Time:	90% of final FS reading < 10 seconds
Sample System:	Wetted parts: stainless steel consisting of flow control and sample/bypass valves; flow indicator
Sensitivity:	< 0.5% of FS range
Sensor Model:	GPR-12-333 - requires no maintenance
Sensor Life:	24 months at 25°C and 1 atm; average O ₂ < 1000 ppm
Signal Output:	4-20mA isolated and 0-1V
Temp. Range:	5° to 45°C (GPR sensor); -20° to 45°C (XLT sensor)
Warranty:	12 months analyzer; 12 months sensor

Optional Equipment

XLT-12-333 ppm Oxygen Sensor with > 0.5% CO₂ present
 19" rack mount bezel; wall mount enclosures (see back page)
 Temperature controlled heater system for elimination of drift and outdoor use
 Range ID: 4-20mA or 5x form C relay contacts plus common

* Specifications are subject to change without notice, may vary with analyzer.

GPR-1600 Series ppm O₂ Analyzer



Advanced Sensor Technology

Accuracy < $\pm 1\%$ FS Range
Sensitivity < 0.5% FS Range
Fast Recovery to < 10 ppm
24 Month Expected Life
No Maintenance
Compatible in 0-100% CO₂

Auto Zero, Span Calibration

5 Standard Ranges

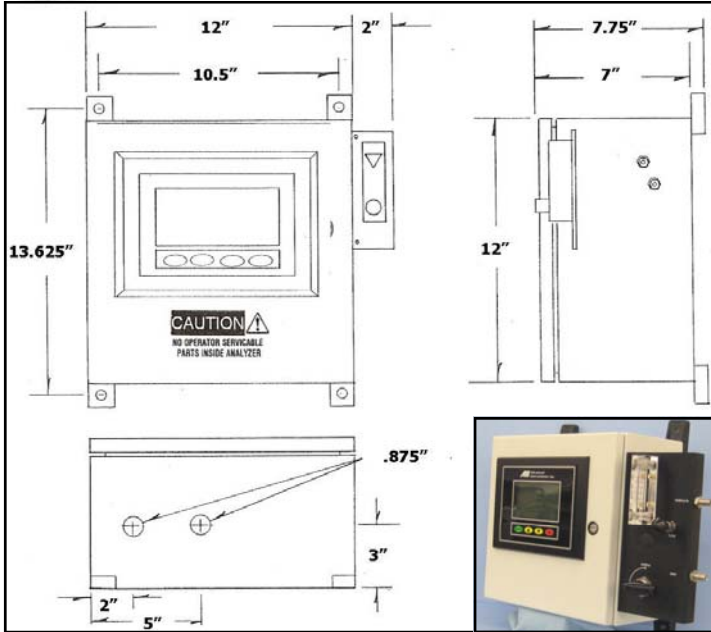
Auto Ranging & Manual Selections

Remote Communication Link

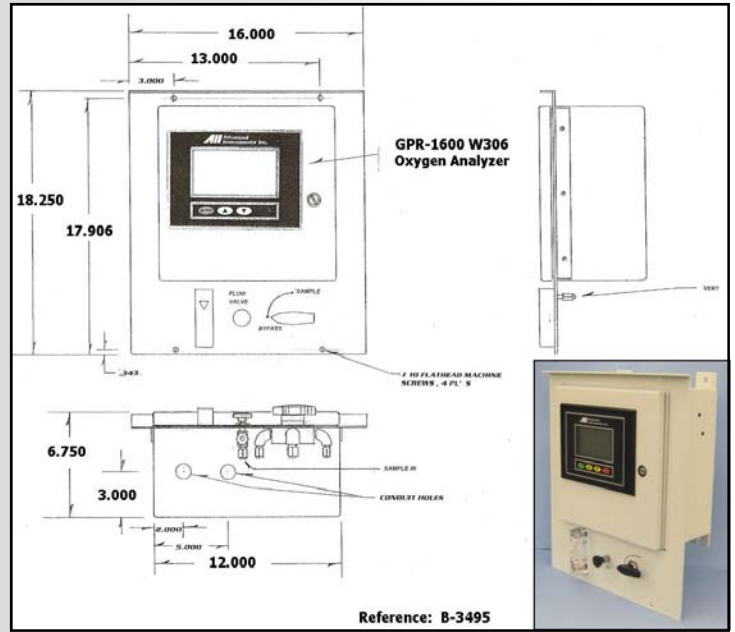
Certified ISO 9001 QA System



**GPR-1600 W
Process ppm O2 Analyzer**



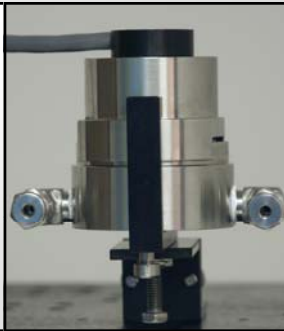
**GPR-1600 W306
Process ppm O2 Analyzer**



Sensor Housing

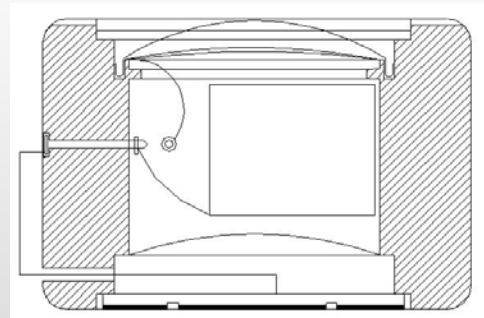
Constructed from stainless steel as are all wetted parts, this unique design features a compression type o-ring seal that virtually eliminate air leaks.

An APIMS mass spectrometer verified that the Bypass Sample System including this housing is capable of accurately and repeatedly distinguishing hourly changes of 1 ppb oxygen concentration.



Advanced Sensor Technology

The sensor is the heart of any analyzer, thus sensor technology is the critical factor in analyzer performance. Analytical Industries Inc. dba Advanced Instruments focuses on optimizing the sensor to meet specific application needs and has produced the first real advancements in sensor technology in decades. All products are manufactured under an independently certified QA system that complies with ISO 9001:2000.

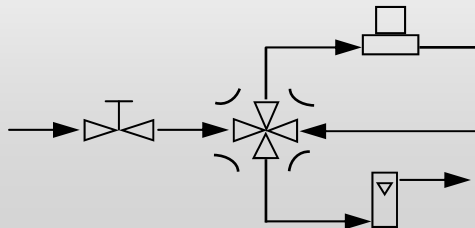


Galvanic ppm Oxygen Sensor

Bypass Sample System

Increases user productivity and ROI by protecting the sensor's ppm capability which enables the analyzer to come online at low ppm levels in a matter of minutes by isolating and protecting the sensor following:

- Transport (analyzer is shipped with the qualified sensor installed)
- Maintenance intervals when changing gas line connections
- Exposure to high oxygen levels during upset conditions
- Purging the air or high O2 levels when changing gas lines



Advancements:

- Signal output 2x higher
- Innovative design, materials
- Proprietary mfg process
- Insensitive to vibration
- Retain compact design
- Low cost of ownership

Performance:

- Accuracy < ± 1% FS
- Sensitivity 0.5% FS (50 ppb)
- Service life 24 mos < 100 ppm
- Recovery air to 10 ppm < 1 hr.
- Op temp -20°C in 0-100% CO₂
- No sensor maintenance