



Technical Specifications *

Accuracy:	< ±1% of FS range under constant conditions			
Analysis:	0-1 ppm, 0-10, 0-100, 0-1000 ppm FS ranges standard; auto-ranging or manually lock on single range			
Application:	Oxygen analysis from 10 ppb to 1000 ppm in inert, helium, hydrogen, mixed 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 range above analysis range recommended for optimum results			
Compensation:	Barometric pressure and temperature; 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 .001 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 1-3 SCFH, 1 SCFH recommended			
Linearity:	> .995 over all ranges			
Pressure:	Inlet - regulate to 20-50 psig, max 150 psig; vent - atmospheric not to exceed -5" water column			
Power:	Universal; specify 110 or 220 VAC for heater system			
Range ID:	4-20mA or 5x form C relay contacts plus common			
Recovery Time:	O ₂ Level	Duration	O ₂ Target	Recovery on N ₂
	Air	30 seconds	1 ppm	45 minutes
	9 ppm	2 minutes	10 ppb	10 minutes
	1 ppm	5 minutes	10 ppb	15 minutes
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-12-2000MS - requires no maintenance			
Sensor Life:	36 months at 25°C and 1 atm; average O ₂ < 100 ppm			
Signal Output:	4-20mA isolated and 0-1V			
Temp. Range:	5° to 45°C			
Warranty:	12 months analyzer; 12 months sensor			

Optional Equipment

19" rack mount bezel; wall mount enclosures (see back page)
 Sample conditioning accessories - contact factory

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

GPR-1600 MS Series Process ppm O₂ Analyzer



Advanced Sensor Technology

Accuracy < ±1% FS Range
Sensitivity < 0.5% FS Range
Analysis from 10 ppb to 1000 ppm
Fast Recovery to < 1 ppm
36 Month Expected Life
No Maintenance

Auto Zero, Span Calibration

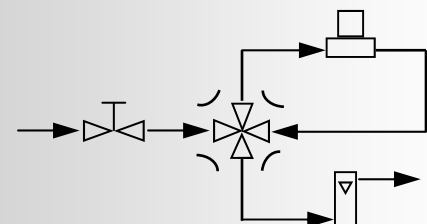
4 Standard Ranges

Auto Ranging & Manual Selections

SS Bypass Sample System

Remote Communication Link

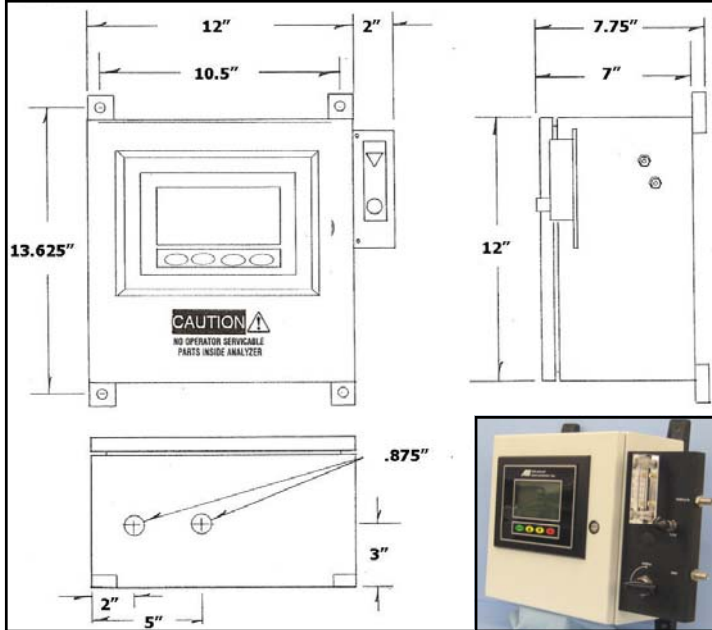
Certified ISO 9001 QA System



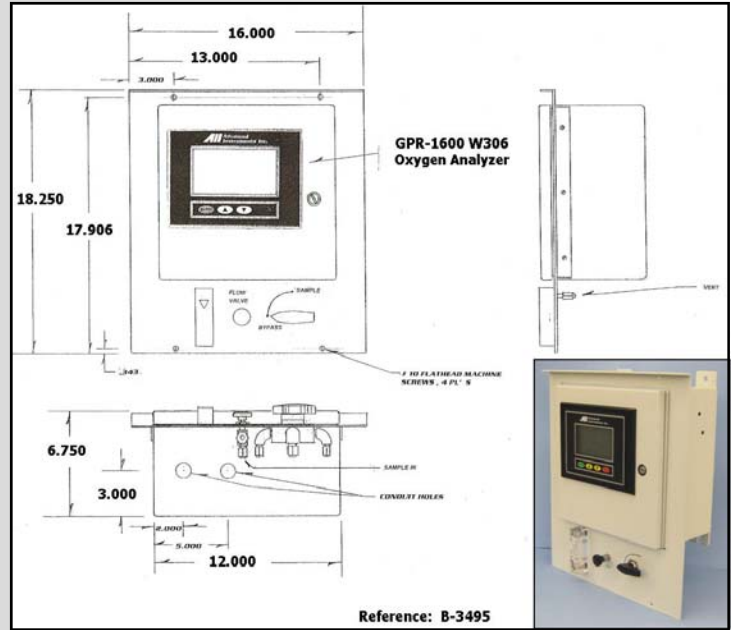
Sample System Increases Productivity



GPR-1600 MS-W Process ppm O₂ Analyzer



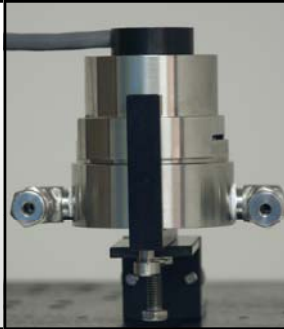
GPR-1600 MS-W306 Process ppm O₂ Analyzer



Sensor Housing

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

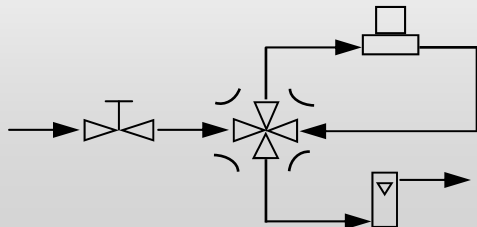
An APIMS mass spectrometer verified that the Bypass Sample System including this housing is capable of accurately and repeatedly distinguishing hourly changes of 1 ppb oxygen concentration.



Bypass Sample System

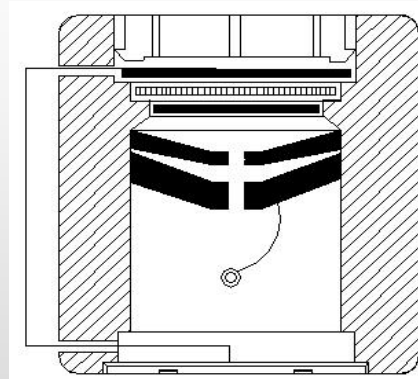
Increases user productivity and ROI by protecting the sensor's ppm capability which enables the analyzer to come online at low ppm levels in a matter of minutes by isolating and protecting the sensor following:

- 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



Advanced Sensor Technology

The sensor is the heart of any analyzer, thus sensor technology is the critical factor in analyzer performance. The Pico-Ion oxygen sensor produced by Analytical Industries Inc. dba Advanced Instruments represents 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.



Pico-Ion™ ppm Oxygen Sensor

Advancements:

Signal output 10x higher
High signal to noise ratio
Maximize oxygen reaction rate
Compact disposable design
Low cost of ownership

Performance:

Lower detectable limit < 10 ppb
Accuracy and repeatability < ±1%
Stability 6 months < 5% drift
Recovers faster from O₂ exposure
36 month life, no maintenance