



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 (1900) or 0-100 ppm, 0-1000, 0-1%, 0-25% (1900D); 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:	1/8" compression tube fittings
Controls:	Water resistant keypad; menu driven range selection, calibration, alarm and system functions
Display:	Graphical LCD 5 x 2.75; resolution .01 ppm; displays real time ambient temperature and pressure
Enclosure:	Painted aluminum 7 x 4 x 4.5" 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:	Specify: Universal 100/110/220/240 VAC or 19-28 VDC
Range ID:	4-20mA
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:	None
Sensitivity:	< 0.5% of FS range
Sensor Model:	GPR-12-333 (1900), GPR-12-100-M (1900D)
Sensor Life:	24 months at 25°C and 1 atm; average O ₂ < 1000 ppm
Signal Output:	4-20mA isolated
Temp. Range:	5° to 45°C (GPR sensor); -20° to 45°C (XLT sensor)
Warranty:	12 months analyzer; 12 months sensor

Optional Equipment

- XLT Series 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-1900 Series Process ppm O₂ Analyzer



Advanced Sensor Technology

- Accuracy < $\pm 1\%$ FS Range
- Sensitivity < 0.5% FS Range
- Fast Recovery to < 10 ppm
- 18-24 Month Life, No Maintenance
- Compatible with 0-100% CO₂

Auto Ranging & Manual Selections

AC or DC Power

Certified ISO 9001-2008 QA System

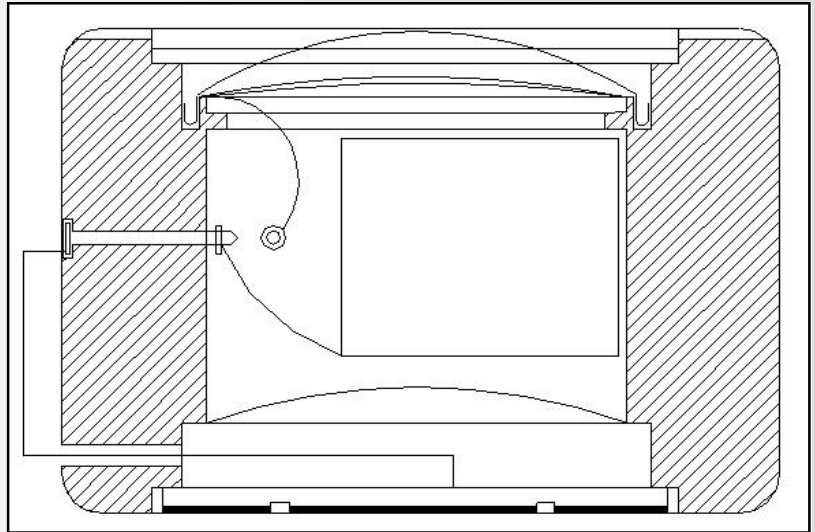




Advanced Sensor Technology

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.



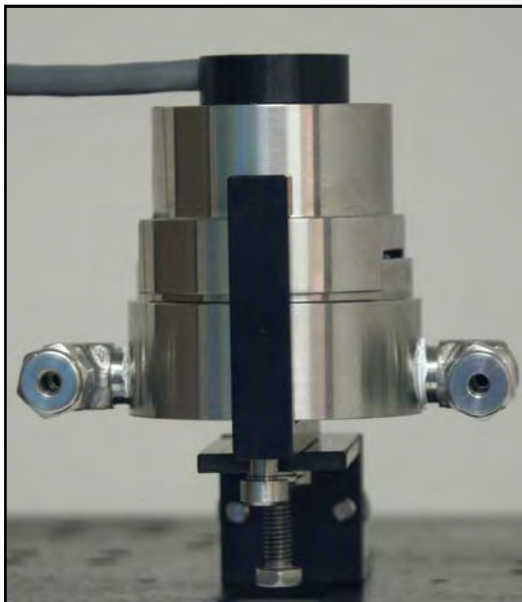
Galvanic ppm Oxygen Sensor

Advancements:

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

Performance:

- Accuracy $< \pm 1\%$ 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% CO_2
- No sensor maintenance



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 comprised of compression type fittings and including this housing is capable of accurately and repeatedly distinguishing hourly changes of 1 ppb oxygen concentration.