



# Advanced Instruments Inc.

Gas analysis solutions through advanced analyzer and sensor technology

## Technical Specifications

Accuracy:	< 1% of FS range under constant conditions		
Analysis:	0-10 ppm, 0-100, 0-1000 ppm, 0-1%, 0-25% FS ranges		
Application:	Oxygen analysis from 100 ppb to 1% in inert, helium, hydrogen, mixed and CO <sub>2</sub> acid (XLT sensor) gas streams		
Approvals:	Enclosure CSA, FM, CE		
Area Classification:	Enclosure Class 1, Division 1, Groups B, C, D NEMA4/7 with optional flame arrestors		
Alarms:	2 adjustable form C relay contacts non-latching; sensor and power failure		
Calibration:	Certified gas of O <sub>2</sub> balance N <sub>2</sub> approximating 80% of range above analysis range recommended for optimum results		
Compensation:	Temperature		
Connections:	1/8" compression tube fittings		
Controls:	Explosion proof actuators for range selection, zero and span calibration adjustments		
Data Acquisition:	None		
Display:	3-1/2 digit bright red LCD; resolution .01 ppm		
Enclosure:	Painted aluminum 12" x 11.5" x 10.5" wall mount, 55 lbs.		
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 100/120 or 220/240 VAC		
Recovery Time:	O <sub>2</sub> Level	Duration	O <sub>2</sub> Target    Recovery on N <sub>2</sub>
	Air	2 minutes	10 ppm    60 minutes *
	Air	2 minutes	1 ppm    20 minutes **
	* Installation    ** In service for 2 weeks at 1 ppm		
Response Time:	90% of final FS reading < 10 seconds		
Sample System:	Flow control and shut off 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 <sub>2</sub> < 100 ppm		
Signal Output:	4-20mA isolated and 0-1V		
Temp. Range:	5° to 45°C		
Warranty:	12 months analyzer; 12 months sensor		
Wetted Parts:	Stainless steel		

## Optional Equipment

- XLT-12-333 ppm Oxygen Sensor with > 0.5% CO<sub>2</sub> present
- Temperature controlled heater system (recommended for analysis < 1 ppm)
- Sample conditioning accessories - contact factory



## **GPR-18 Explosion Proof Process ppm O<sub>2</sub> Analyzer**

**Class 1, Division 1, Groups B, C, D**

**Advanced Galvanic Sensor Technology**

**Accuracy < 1% FS Range**

**Sensitivity < 0.5% FS Range**

**Fast Recovery to ppm Levels**

**Excellent Stability**

**24 Month Expected Life**

**No Maintenance**

**Compatible in 0-100% CO<sub>2</sub>**

**5 Standard Analysis Ranges**

**SS Sample System**

**Adjustable HI, LO Alarms**

**Isolated 4-20mA Signal Output**

**Certified ISO 9001 QA System**

