Oxygen Analyzer

GPR-x500

ppm and % Oxygen Analyzers

Electrochemical Sensor

GPR-x500 analyzers are single-channel, and engineered for precise trace oxygen analysis and percentage oxygen measurement in clean gas. Sensor options enhance this robust analyzer's capabilities for measurement in gases such as carbon dioxide, helium and hydrogen. Hazardous and Safe Area-approved, GPR-x500 is built for industries with stringent safety requirements.

Leveraging established technology, our unique advanced sensors have been developed and proven over three decades, and are optimized for use with our analyzers.

We offer seamless integration of Human-Machine Interface (HMI) across our online and portable analyzers. This intuitive concept ensures effortless switching between instruments. Our analyzers are streamlined, user-friendly, and built for accuracy because ease-of-use matters as much as results.

GPR-2500 General Purpose and GPR-2500 Hazardous Area analyzers pictured. Customized sample systems are also available.

Highlights

- Wide variety of measurement ranges from 0...10 ppm to 0...25 %
- Sensor options for measurement in He, CO_2 or H_2 gases
- Hazardous area-rated for key global markets
- Gas temperature compensation
- Loop-powered configurations

Applications

- Inertization and blanketing gases
- Natural gas quality
- O_2 in pharmaceutical reactors and centrifuges
- Gas quality in steel production, heat-treatment furnaces and solder re-flow processes
- Pure gas quality on feed gases for food & beverage packaging and production, and N_2 generators

Technical Specifications

Sensor				
Electrochemical	**GPR-1500** ppm		**GPR-2500** %	
Model Number	GPR-12-333 GPR-12-333-LD GPR-12-333-H	XLT-12-333 XLT-12-333-LD	GPR-11-60 GPR-11-60-LD	XLT-11-24 XLT-11-24-LD
Measuring Range	0…10, 0…100, 0…1000 ppm$_V$, 0…1 % 0…25 % (calibration only)		0…1, 0…5, 0…10, 0…25 %	
Output Resolution	0.01 ppm$_V$		0.001 %	
Lower Detection Limit (LDL)	0.05 ppm$_V$		0.01 %	
Sample Flow Rate (application dependent)	1…2 SCFH (0.5…1 LPM)			
Pressure Range	5…30 psi (0.4…2.1 bar)			
Response Time (T90)	< 2 minutes		< 30 seconds	
Operating Temperature Range	+5 °C…+45 °C (+41 °F…+113 °F)	-10 °C…+45 °C (+14 °F…+113 °F)	+5 °C…+45 °C (+41 °F…+113 °F)	-10 °C…+45 °C (+14 °F…+113 °F)
Humidity	0…80 %rh non-condensing			
Life Expectancy (application dependent)	24 months in < 1000 ppm$_V$		60 months in air	24 months in air
Calibration Interval (application dependent)	30 days			

Analyzer	
Electrical	
Display	LCD
Output Signal	4…20 mA
Power Supply	18…24 V DC
Maximum Power Consumption	1.8 W
Mechanical	
Ingress Protection	NEMA 3R
Analyzer Housing Material	Fiberglass and painted aluminum
Mounting	Wall / vertical surface

Compliance
Complies with EMC Directive: 2014/30/EU **Standard Details:** EN 50270:2015, EN 61000-4-2:2009 UL/IEC/EN 61010-1

Hazardous Area Certification
ATEX: II 1 G Ex ia IIC T4 Ga T$_{amb}$ (-20 °C…+50 °C)
cMETus: Class I, Division 1, Groups A, B, C & D T4; Class I, Zone 0, AEx ia IIC T4 Ga T$_{amb}$, Ex ia IIC T4 Ga T$_{amb}$ (-20 °C…+50 °C)
IECEx: Ex ia IIC T4 Ga T$_{amb}$ (-20 °C…+50 °C)

Dimensions in inches [mm]
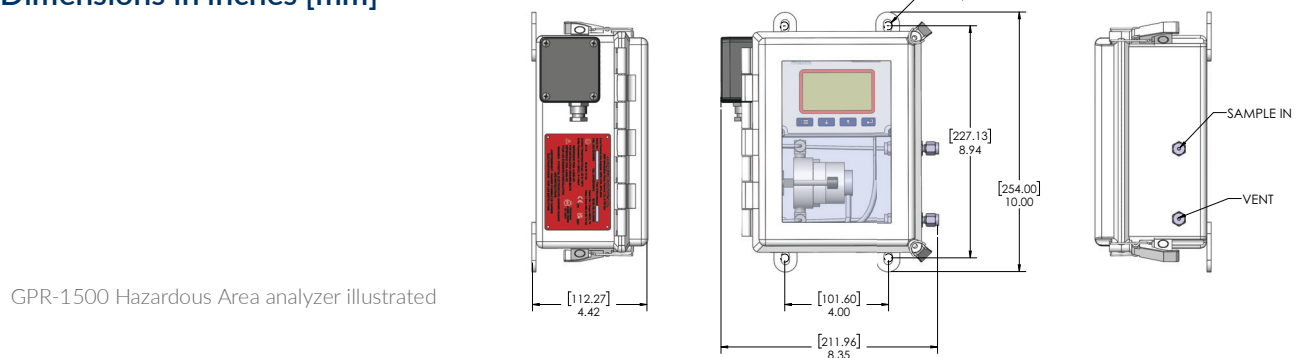
GPR-1500 Hazardous Area analyzer illustrated

🛈 **CAUTION**

Analytical Instruments Inc (Aii) is part of the Process Sensing Technologies Group plc (PST). As customer applications are outside of PST control, the information provided is given without legal responsibility. Customers should test under their own conditions to ensure the equipment is suitable for the intended application(s).