

Архангельск (8182)63-90-72
Астана (7172)727-132
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16

Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13

Сургут (3462)77-98-35
Тверь (4822)63-31-35
Томск (3822)98-41-53
Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Ярославль (4852)69-52-93

michell.nt-rt.ru || mhc@nt-rt.ru

АНАЛИЗАТОРЫ КИСЛОРОДА

ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ

GPR-1000/1100/1200/2000/3500

Portable Oxygen Analyzers for General Purpose and Hazardous Areas



GPR-2000

GPR-1200

The portable oxygen analyzer range from AII has several variants capable of measuring from parts per billion (ppb) to pure O₂.

Featuring advanced galvanic trace sensors for parts per million (ppm) analysis with proven life times of up to 24 months in normal operation. Percent level analyzers have a life time of up to 32 months.

User-friendly Human Machine Interface (HMI) with a common menu structure throughout the range. Compact and robust enclosures designed to withstand the demands of industrial field use.

Integrated bypass on selected models that isolates the sensor when not sampling allowing trace levels of O₂ to be measured quickly and vastly extends the life of the sensor.

Optional sample system items include flow meters, pumps, filters & scrubbers.

Highlights

- Fast recovery to <10 ppm from exposure to air
- Sensor life, warranty and performance is unmatched
- Excellent compatibility in CO₂ backgrounds
- Operating temperature down to -20°C
- Sensitivity 0.5% full scale

Applications

- Oxygen analysis in inert, helium, mixed and acid (CO₂) gases

Technical Specifications

Common Specifications					
Accuracy	<2% of full scale range under constant conditions				
Analysis ranges	See individual models on reverse				
Approvals	See individual models on reverse				
Area classification	General Purpose or ATEX approved*				
Calibration	3 month interval using certified span gas (preferred for fastest online time) or air with O ₂ value approximating 80% of full scale range balance N ₂				
Compensation	Barometric pressure and temperature				
Connections	1/8" compression tube fittings				
Controls	Water resistant keypad; menu driven range selection, calibration and system functions				
Display	Graphical LCD 70 x 35mm; resolution .01 ppm				
Enclosure	Painted aluminium NEMA 4X (see individual and models for size and weight)				
Flow sensitivity	None between 0.2 to 2.4 NI/min, 0.5 to 0.95 NI/min recommended				
Linearity	<1% of full scale				
Pressure	<table border="0"> <tr> <td>Inlet</td> <td>Regulate to 0.3 to 2 barg to deliver 0.5 to 0.9 NI/min flow to transmitter</td> </tr> <tr> <td>Vent</td> <td>Atmospheric</td> </tr> </table>	Inlet	Regulate to 0.3 to 2 barg to deliver 0.5 to 0.9 NI/min flow to transmitter	Vent	Atmospheric
Inlet	Regulate to 0.3 to 2 barg to deliver 0.5 to 0.9 NI/min flow to transmitter				
Vent	Atmospheric				
Power	Rechargeable batteries with mains power adapter (charge in a safe area only)				
Response time	90% of final full scale reading in 10 seconds				
Sensitivity	<0.5% of full scale range				
Sensor model	See individual models				
Sensor life	24 months in <1000 ppm O ₂ @ +25°C and 1 atmosphere				
Signal output	0 to 1 V (GPR-3500 has 4-20 mA)				
Temperature range	+5 to +45°C (GPR sensor) -20 to +45°C (XLT sensor)				
Warranty	12 months analyzer, 12 months sensor				
Wetted parts	Stainless steel (optional on GPR-1000)				
Optional Equipment					
Carrying case with custom foam insert					
Sample conditioning - pump, filter, scrubbers - contact Michell Instruments					

*See certification box

ATEX Certified - Directive 94/9/EC
Examination Cert: INERIS 07ATEX0025X



II 2 G
Ex ib IIB T4
T_{amb} -20°C to +50°C



0080

GPR-1000/1100/1200/2000/3500

Portable Oxygen Analyzers for General Purpose and Hazardous Areas

GPR-1000, GPR-1000 ATEX



Technical Specifications

Range	0-1000 ppm, 1%, 25% (Cal FS)
Area classification	GPR-1000: General Purpose GPR-1000 ATEX: Ex II 2 G Ex ib IIB T4 T _{amb} -20 to +50°C
Enclosure size	10.2 x 22.6 x 7.6cm, 3.6kg
Sensor model	GPR-12-100-M XLT-12-100-M for CO ₂

GPR-1100, GPR-1100 ATEX



Technical Specifications

Range	0-10, 0-100, 0-1000 ppm, 0-1%, 0-25% (Cal FS)
Area classification	GPR-1100: General Purpose GPR-1100 ATEX: Ex II 2 G Ex ib IIB T4 T _{amb} -20 to +50°C
Enclosure size	10.2 x 22.6 x 7.6cm, 3.6kg
Sensor model	GPR-12-333 XLT-12-333 for CO ₂

GPR-1200 MS, GPR-1200 MS ATEX/GPR 1200, GPR-1200 ATEX



Technical Specifications

Range	GPR-1200 & ATEX: 0-10, 0-100, 0-1000 ppm, 0-1%, 0-25% (Cal FS) GPR-1200 MS & MS ATEX: 0-1, 0-10, 0-100, 0-1000 ppm
Area classification	GPR-1200 & MS: General Purpose GPR-1200 ATEX & MS ATEX: Ex II 2 G Ex ib IIB T4 T _{amb} -20 to +50°C
Enclosure size	21.8 x 22.9 x 7.6cm, 5.4kg
Sensor model	GPR-1200 MS & MS ATEX: GPR-12-2000 MS GPR-1200 & ATEX: GPR-12-333 XLT-12-333 for CO ₂

GPR-2000, GPR-2000 ATEX



Technical Specifications

Range	0 - 1%, 0-5%, 0-10%, 0-25% (Cal FS)
Area classification	GPR-2000: General Purpose GPR-2000 ATEX: Ex II 2 G Ex ib IIB T4 T _{amb} -20 to +50°C
Enclosure size	10.2 x 22.6 x 7.6cm, 3.6kg
Sensor model	GPR-11-32-RTS XLT-11-32-RTS for CO ₂

GPR-3500 MO



Technical Specifications

Range	0-100% FS Note: for calibration 0-95% FS range balance N ₂
Area classification	General Purpose
Enclosure size	10.2 x 22.6 x 7.6cm, 3.6kg
Sensor model	GPR-11-120-RTS

GPR-15 XP/18/25 XP/28

Explosion-Proof Oxygen Analyzers and Transmitters



GPR-15 XP/25 XP

GPR-18/28

To compliment the Intrinsically Safe analysers and transmitters, AII have produced an Explosion-Proof range of oxygen analyzers with several variants capable of measuring from parts per billion (ppb) up to 25% O₂.

Featuring advanced galvanic trace sensors for parts per million (ppm) analysis with proven life times of up to 36 months in normal operation. Percent level analyzers have a life time of up to 32 months.

Robust enclosures with Flame Arrestors designed to withstand the demands of operation in process environments.

Optional sample system items include flow meters, pumps, filters & scrubbers.

Highlights

- ATEX Certified to Ex II 2G Ex d IIB + H2 T6 or T5 (not GPR-15 XP/25 XP)
- Ppb, ppm & % level measurements available
- Fast recovery to <10 ppm from exposure to air
- Sensor life, warranty and performance is unmatched
- Excellent compatibility in CO₂ backgrounds
- Operating temperature down to -20°C
- Sensitivity 0.5% full scale

Applications

- Trace O₂ in hydrocarbon feed stocks
- Processing of "cleaned" natural gas
- O₂ contamination in pipelines (ethylene)
- Trace O₂ in blanketing gases for chemical storage
- Low level monitoring of H₂ cooling gas for turbine generators

Technical Specifications

Common Specifications	
Accuracy	<2% of full scale range under constant conditions
Analysis ranges	See individual models on reverse
Approvals	See individual models on reverse
Alarms	See individual models on reverse
Area classification	See individual models on reverse
Calibration	3 month interval using certified span gas (preferred for fastest online time) or air with O ₂ value approximating 80% of full scale range balance N ₂
Compensation	Temperature
Connections	1/8" compression tube fittings
Controls	Range selector and zero & span potentiometers Explosion-Proof actuators for GPR-18/28
Display	3½ digit display (see individual models)
Enclosure	Painted aluminium (see individual models for size and weight)
Flow sensitivity	See individual models
Linearity	<1% of full scale
Pressure	Inlet See individual models Vent Atmospheric
Power	GPR-15 XP/25 XP: 12 to 24 V DC two wire loop powered GPR-18/28: 100 to 120 or 220 to 240 V AC
Response time	See individual models
Sensitivity	<0.5% of full scale range
Sensor model	See individual models
Sensor life	See individual models
Signal output	4-20 mA and 0 to 1 V (GPR-18/28)
Temperature range	+5 to +45°C (GPR sensor) -20 to +45°C (XLT sensor)
Warranty	12 months analyzer, 12 months sensor
Wetted parts	Stainless steel
Optional Equipment	
Carrying case with custom foam insert	
Sample conditioning - pump, filter, scrubbers - contact Michell Instruments	

*See certification box

ATEX Certified - Directive 94/9/EC
Examination Cert: INERIS 07ATEX0025X



II 2 G
Ex d IIB or d IIB + H2 T6 or T5



0080

GPR-15 XP/18/25 XP/28

Explosion-Proof Oxygen Analyzers and Transmitters

GPR-15 XP & GPR-25 XP Oxygen Transmitters



Technical Specifications

Model	GPR-15 XP	GPR-25 XP
Range	0-100 ppm, 0-25%	0-5%, 0-25%
Sensor model & life expectancy	GPR-12-100-M - 24 months XLT-12-100-M for CO ₂ - 24 months	GPR-11-32-RTS - 32 months XLT-11-24-RTS for CO ₂ - 24 months
Approvals	Supplied in ATEX approved enclosure, with flame arrestors to following standard: EX II 2 G EExd IIC; EX II 2 D or EX II 2 G EExd IIB + H ₂ ; EX II 2 D	
Display	LCD 3½ digits, resolution: 0.1 ppm	LCD 3½ digits, resolution: 0.01%
Enclosure	NEMA 4X, 30 x 20 x 25cm, 6.8kg	
Flow sensitivity	Not flow sensitive; recommended flow rate: 0.5 to 1 NI/min	
Pressure	Inlet: regulate to 0.3 to 2 barg	
Response time	15 seconds for 90%	

GPR-18 MS



Technical Specifications

Range	0-1, 0-10, 0-100, 0-1000 ppm, 0-25%
Alarms	2 adjustable form C relay contacts non latching; sensor and power failure
Approvals	ATEX certified EX II 2G EX d IIB or IIB + H ₂ T6 or T5*
Display	LED 3½ digits, resolution: 0.001 ppm
Enclosure	Painted aluminium wall mount, 45 x 40 x 28cm, 31.8kg
Flow sensitivity	Not flow sensitive; recommended flow rate: 0.5 NI/min
Pressure	Inlet: regulate to 1.5 to 3.5 barg, max: 10 barg
Response time	20 seconds for 90%
Sensor model & life expectancy	GPR-12-2000MS - 36 months in <100 ppm @ 25°C @ 1 atmosphere No sensor option available for gas streams containing >0.5% CO ₂

GPR-18



Technical Specifications

Range	0-1, 0-10, 0-100, 0-1000 ppm, 0-25%
Alarms	2 adjustable form C relay contacts non latching; sensor and power failure
Approvals	ATEX certified EX II 2G EX d IIB or IIB + H ₂ T6 or T5*
Display	LED 3½ digits, resolution: 0.01 ppm
Enclosure	Painted aluminium wall mount, 45 x 40 x 28cm, 31.8kg
Flow sensitivity	Not flow sensitive; recommended flow rate: 0.5 NI/min
Pressure	Inlet: regulate to 0.3 to 2 barg, max: 10 barg
Response time	10 seconds for 90%
Sensor model & life expectancy	GPR-12-333 - 24 months in <1000 ppm @ 25°C @ 1 atmosphere XLT-12-333 for CO ₂ - 24 months

GPR-28



Technical Specifications

Range	0-100 ppm, 0-25%
Alarms	2 adjustable form C relay contacts non latching; sensor and power failure
Approvals	ATEX certified EX II 2G EX d IIB or IIB + H ₂ T6 or T5*
Display	LED 3½ digits, resolution: 0.001%
Enclosure	Painted aluminium wall mount, 45 x 40 x 28cm, 31.8kg
Flow sensitivity	Not flow sensitive; recommended flow rate: 0.5 NI/min
Pressure	Inlet: regulate to 0.3 to 2 barg, max: 10 barg
Response time	10 seconds for 90%
Sensor model & life expectancy	GPR-11-32 - 32 months in air @ 25°C @ 1 atmosphere XLT-11-24-4 for CO ₂ - 24 months

GPR-1500 Series

Trace Oxygen Analyzers for General Purpose and Hazardous Areas



The GPR-1500 series from AII offers a flexible platform with two types of enclosure, 4 or 5 ranges and General Purpose or ATEX certified units available.

All units are capable of auto-ranging or being manually locked on a single range.

Additional features included in the analyzer are mains power, barometric pressure compensation and two user configurable alarms.

Highlights

- 0-10*, 0-100, 0-1000, 1% and 0-25% (for calibration)
- ATEX certified to EX II 2G EX ia IIB T4
- 12 to 24 V DC, loop powered transmitters
- Sensor life, warranty and performance is unmatched
- Temperature compensation as standard
- Stainless steel wetted parts
- Excellent operating temperature, -20°C
- Sensitivity 0.5% full scale

*Not available with 4 range models

Applications

- Oxygen analysis in inert, helium, mixed and acid (CO₂)
- Low level ppm O₂ in light bulb filling

Technical Specifications

Common Specifications					
Accuracy	<2% of full scale range under constant conditions				
Analysis ranges	0-10*, 0-100, 0-1000, 1% and 0-25% (for calibration)				
Approvals	See individual models on reverse				
Area classification	General Purpose or ATEX approved**				
Calibration	3 month interval using certified span gas (preferred for fastest online time) or air with O ₂ value approximating 80% of full scale range balance N ₂				
Compensation	Temperature compensation as standard; barometric pressure compensation on analyzer versions (models denoted with an 'a')				
Connections	1/8" compression tube fittings				
Controls	Water resistant keypad; menu driven range selection, calibration and system functions				
Display	Graphical LCD 70 x 35mm; resolution .01 ppm				
Enclosure	See individual models on reverse for material, size and weight				
Flow sensitivity	None between 0.2 to 2.4 NI/min, 0.5 to 0.95 NI/min recommended				
Linearity	±1% of full scale				
Pressure	<table border="0"> <tr> <td>Inlet</td> <td>Regulate to 0.3 to 2 barg to deliver 0.5 to 0.9 NI/min flow to transmitter</td> </tr> <tr> <td>Vent</td> <td>Atmospheric</td> </tr> </table>	Inlet	Regulate to 0.3 to 2 barg to deliver 0.5 to 0.9 NI/min flow to transmitter	Vent	Atmospheric
Inlet	Regulate to 0.3 to 2 barg to deliver 0.5 to 0.9 NI/min flow to transmitter				
Vent	Atmospheric				
Power	12 to 24 V DC, loop powered for transmitters; 12 to 28 V DC or 110 to 220 V AC for analyzers				
Response time	90% of final full scale reading in 10 seconds				
Sensitivity	<0.5% of full scale range				
Sensor model	See individual model numbers				
Sensor life	24 months in <1000 ppm O ₂ @ +25°C and 1 atmosphere				
Signal output	4-20 mA				
Temperature range	-10 to +45°C (GPR sensor) -20 to +45°C (XLT sensor)				
Warranty	12 months analyzer, 12 months sensor				
Wetted parts	Stainless steel				
Optional Equipment					
Sample conditioning - pump, filter, scrubbers - contact Michell Instruments					

**See certification box

ATEX Certified - Directive 94/9/EC
Examination Cert: INERIS 08ATEX0036



II 2 G
Ex ib IIB T4
T_{amb} -20°C to +50°C



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GPR-1500

Trace Oxygen Analyzers for General Purpose and Hazardous Areas

Every GPR-1500 from AII has the following features as standard:

- 4 or 5 ranges from 0-10*, 0-100, 0-1000, 1% and 0-25% (for calibration)
- Standard sensor models are designated GPR, for gases containing >0.5% CO₂ the XLT sensor should be selected
- 12 to 24 V DC loop powered
- Temperature compensation (T)
- Barometric pressure (B) on analyzer models only
- 3 month calibration intervals
- Choice of sensors for standard gas streams containing >0.5% CO₂ (XLT version)
- 4 button user interface with LCD display

*Not available with 4 range models

Model	Ranges	Case type	Power	Alarms	Compensation	Sensor type
GPR-1500	5	1	12 to 24 V DC	None	T	GPR-12-333 or XLT-12-333*
GPR-1500D	4	1	12 to 24 V DC	None	T	GPR-12-100-M or XLT-12-100-M
GPR-1500N	5	2	12 to 24 V DC	None	T	GPR-12-333 or XLT-12-333*
GPR-1500DN	4	2	12 to 24 V DC	None	T	GPR-12-100-M or XLT-12-100-M
GPR-1500A	5	1	12 to 28 V DC or 110 to 220 V AC	2 user configurable alarms, field programmable***	T & B	GPR-12-333 or XLT-12-333*
GPR-1500DA	4	2	12 to 28 V DC or 110 to 220 V AC	2 user configurable alarms, field programmable***	T & B	GPR-12-100-M or XLT-12-100-M
GPR-1500 ATEX	5	1	12 to 24 V DC	None	T	GPR-12-333 or XLT-12-333*
GPR-1500N ATEX	5	2	12 to 24 V DC	None	T	GPR-12-333 or XLT-12-333*
GPR-1500D ATEX	4	1	12 to 24 V DC	None	T	GPR-12-100-M or XLT-12-100-M
GPR-1500DN ATEX	4	2	12 to 24 V DC	None	T	GPR-12-100-M or XLT-12-100-M

***Alarms are magnetic coils rated 3A @ 100 V A C, field programmable alarm time delays, alarm bypass for calibration and system fail alarm

Case Type 1



Technical Specifications

Material	Painted aluminium
Weight	3.6kg
Dimensions	23 x 10 x 8cm (h x w x d)

Case Type 2



Technical Specifications

Material	Fiberglass NEMA 4X
Weight	4.5kg
Dimensions	21 x 17 x 11cm (h x w x d)

GPR-1600/2600/3000/3100

PPB, PPM & Percent Level Oxygen Analyzers



This range of industrial analyzers from AII covers all purity applications from ppb O₂ in pure gases, such as nitrogen, argon or helium to measuring pure oxygen.

The analyzers can be bench, wall, panel or 19" rack mounted and all share a common Human Machine Interface (HMI).

All units are capable of auto-ranging or being manually locked on a single range.

Highlights

- 4 or 5 Ranges available from 0-100 ppb up to 100%
- GPR-3100 has suppressed zero ranges up to 90-100%
- Universal power supply
- Up to 24 months sensor life
- Barometric pressure and temperature compensation as standard
- Stainless steel wetted parts
- Orbitally welded sample system for UHP analyzer
- Sensitivity 0.5% full scale

Applications

- Trace oxygen analysis for gas purity
- O₂ purity (GPR-3100)
- Ultra high purity gases for semi-conductor industry (GPR-1600 UHP)

Technical Specifications

Common Specifications		
Accuracy	<2% of full scale range under constant conditions*	
Analysis ranges	See individual models on reverse	
Calibration	3 month interval using air or certified span gas or air with O ₂ value approximating 80% of full scale range balance N ₂ (GPR-1600 UHP see note below**)	
Compensation	Barometric pressure and temperature compensation as standard	
Connections	See individual models on reverse	
Controls	Water resistant keypad; menu driven range selection, calibration, alarm and system functions	
Display	Graphical LCD 13 x 7cm; resolution - see individual models on reverse	
Enclosure	Material	Painted aluminium
	Size	19 x 27 x 31cm (h x w x d) - panel mount 19" rack or wall mounting options
Sample flow rate	See individual models on reverse	
Linearity	<1% of full scale	
Pressure	Inlet	Regulate to 0.3 to 2 barg to deliver 0.5 to 0.9 NI/min flow to transmitter
	Vent	Atmospheric
Power	100 to 120 V DC or 200 to 220 V AC	
Response time	90% of final full scale reading in 10 seconds (<60 seconds for GPR-1600 UHP)	
Sensitivity	<0.5% of full scale range	
Sensor model	See individual models on reverse	
Sensor life	15 to 32 months, see individual models on reverse	
Signal output	4-20 mA or 0-1 V; optional Modbus RTU	
Temperature range	+5 to +45°C (GPR sensor) -20 to +45°C (XLT sensor)	
Warranty	12 months analyzer, 12 months sensor	
Wetted parts	Stainless steel	
Optional Equipment		
Sample conditioning - contact Michell Instruments		

*Accuracy <1% full scale for GPR-1600 UHP

**Calibration interval for GPR-1600 UHP is a weekly zero in first month and then 1 to 3 monthly span calibrations thereafter

GPR-1600/2600/3000/3100

PPB, PPM & Percent Level Oxygen Analyzers

All analyzers below have the following features as standard (unless otherwise stated):

- 4 or 5 ranges
- Standard sensor models are designated GPR, for gases containing >0.5% CO₂ the XLT sensor should be selected
- 2 adjustable alarm relay contacts non latching indicating “weak sensor”, “power failure” or “system failure”
- Temperature and barometric pressure compensation, fitted as standard
- Stainless steel wetted parts
- 3 month calibration intervals
- 4 button user interface with LCD display
- Mains powered

Model	Range	Sample flow rate	Sensor type	Sensor life (months)	Model specific features
GPR-1600	0-10, 0-100, 0-1000 ppm, 0-1%, 0-25% (CAL)	1 NI/min	GPR-11-32-RTS or XLT-11-24-RTS	GPR = 32 XLT = 24	N/A
GPR-1600MS	0-1, 0-10, 0-100, 0-1000 ppm	0.5 NI/min	GPR-12-2000MS	GPR = 24	Heated sample system and sensor for measurement stability
GPR-1600 UHP	0-100 ppb, 0-1, 0-10, 0-100 ppm	0.5 to 1.5 NI/min	GPR-13-2000UHP	GPR = 15	Atmospheric sampling; Inlet pressure for cal gas as per standard spec; (see note on front regarding calibration**). Optional sample system includes; manual pressure regulation, flow control indicator, pneumatic valves control sample and span gas inlets, bypass and isolation of sensor and integral sample gas system, electro-polished tubing with orbitally welded of VCR connections
GPR-2600	0-1%, 0-5%, 0-10%, 0-25%	1 NI/min	GPR-11-32-4 or XLT-11-24-4	GPR = 32 XLT = 24	Atmospheric sampling; Inlet pressure for cal gas as per standard spec;
GPR-3000T	0-10, 0-100, 0-1000 ppm, 0-25% (CAL) 0-100% O ₂	1 NI/min	GPR-11-32-4 or XLT-11-24-4	GPR = 32 XLT = 32	Barometric pressure compensation; 2 user configurable alarms, field programmable***; 12 to 28 V DC 2 wire loop or 110 to 220 V AC (mains powered)
GPR-3100	90-100%, 80-100%, 50-100%, 0-100%	1 NI/min	GPR-11-32-RTS or XLT-11-24-RTS	GPR = 32 XLT = 24	N/A

Mounting Options

There are 4 main mounting options available.

- Bench mounting (dimensions: 35.3 x 25.1 x 34cm)
- Panel mounting (dimensions: 19 x 27.4 x 28.6cm)
- 19" rack mounting with optional bezel (dimensions: 19" x 48 x 72cm)
- Wall mounting brackets (dimensions: 34.6 x 26.7 x 17.8cm)

GPR-1800/2800 AIS/IS

Intrinsically Safe ATEX Analyzers



GPR-1800 ATEX Intrinsically Safe Oxygen Analyzer from AII

The GPR-1800 measures ppm levels of oxygen and offers optional Modbus RTU Communication and modular sampling system. It is available with alarm relays (GPR-1800 AIS) or without (GPR-1800 IS).

GPR-2800 ATEX Intrinsically Safe Oxygen Analyzer from AII

The GPR-2800 measures percent oxygen and offers optional Modbus RTU Communication and modular sampling system. As with the GPR-1800, it is available with or without alarm relays.

Highlights

- 2 sensor options available
- 12 to 28 V DC power or mains power (AIS only)
- 2 x field selectable concentration alarms
- Modbus communication (AIS only)
- Standard sample includes sample/span valve, moisture filter, flow meters
- Optional fully automated sample system

Applications

- Oxygen analysis in inert, hydrocarbon, helium, hydrogen, mixed and acid (CO₂) gas streams
- Landfill gas - percent level O₂ measurement to monitor the quality of the gas as it is used to power incinerators and boilers
- Processing of 'cleaned' natural gas

Technical Specifications

	GPR-1800	GPR-2800
Accuracy	<2% of full scale range under constant conditions	
Analysis ranges	0-10 ppm, 0-100 ppm, 0-1000 ppm, 0.1%, 0-25% full scale ranges; auto-ranging or manually lock on a single range	0-1%, 0-5%, 0-10%, 0-25% full scale ranges; auto-ranging or manually lock on a single range
Approvals	Certified for use in hazardous areas UL: United States: UL 1203, UL 913, UL 508 Canada: CAN/CSA C22.2 No. 30-M1986, CAN/CSA C22.2 No. 157-92, CAN/CSA C22.2 No. 14-10 ATEX: Directive 94/9/EC	
Area classification	ATEX certified, EX II 2 G, Exd [ib] IIB T4, T _{amb} -20 to +50°C	
Alarms	Two user configurable alarms - AIS versions only	
Calibration	3 month interval using air or certified span gas with O ₂ value approx 80% of full scale range balance N ₂	
Compensation	Temperature as standard; barometric pressure AIS only	
Connections	1/8" compression tube fittings	
Controls	Water resistant keypad; menu driven range selection, calibration and system functions	
Display	Graphical LCD 70 x 35mm; resolution 0.01 ppm; displays real time ambient temperature and pressure	
Enclosure	NEMA type 3R suitable for rain in outdoor applications	
Flow	Not flow sensitive; recommended flow rate 0.4 to 0.9 NI/min	
Linearity	±1% of full scale	
Pressure	Inlet	Regulate to 0.3 to 2 barg to deliver 0.4 to 0.9 NI/min flow;
	Vent	Atmospheric
Power	12 to 28 V DC 110 to 220 V AC (AIS version only)	
Response time	90% of final reading in 10 seconds	
Sample system	Sample flow meter; options available	
Sensitivity	<0.5% of full scale range	
Sensor model	GPR-12-333 or XLT-12-333 (for gases containing >0.5% CO ₂)	GPR-11-32 or XLT-11-24 (for gases containing >0.5% CO ₂)
Sensor life	24 months in normal operating conditions O ₂ @ +25°C and 1 atmosphere	GPR-11-32 32 months in normal operating conditions @ +25°C and 1 atmosphere XLT-11-24 24 months in normal operating conditions @ +25°C and 1 atmosphere
Signal output	4-20 mA; Modbus RTU communication (AIS only)	
Temperature range	-10 to +45°C (GPR sensor); -20 to +45°C (XLT)	
Warranty	12 months analyzer; 12 months sensor	
Wetted parts	Stainless steel	

ATEX Certified - Directive 94/9/EC
Examination Cert: INERIS 10ATEX0020



II 2 G
Ex ib IIB T4
T_{amb} -20°C to +50°C



0080

GPR-2500 Series

Percent Level Oxygen Analyzers for General Purpose and Hazardous Areas



The GPR-2500 series from AII offers a flexible platform with two types of enclosure, 4 ranges and General Purpose or ATEX certified units available.

All units are capable of auto-ranging or being manually locked on a single range.

Additional features included in the GPR-2500A are mains power, barometric pressure compensation and two user configurable alarms.

Highlights

- 0-1%, 0-5%, 0-10%, 0-25%**
- ATEX certified to EX II 2G EX ia IIB T4
- 12 to 24 V DC, loop powered transmitters
- Sensor life, warranty and performance is unmatched
- Temperature compensation as standard
- Stainless steel wetted parts
- Excellent operating temperature, -20°C
- Sensitivity 0.5% full scale

**The GPR-2500 AMO is ranged 0-100% full scale

Applications

- Oxygen analysis in inert, helium, mixed and acid (CO₂) gases
- O₂ in nitrogen blankets for artefacts in museums
- Modified atmosphere packaging

Technical Specifications

Common Specifications		
Accuracy	<2% of full scale range under constant conditions	
Analysis ranges	0-1%, 0-5%, 0-10%, 0-25%	
Approvals	See individual models on reverse	
Area classification	General Purpose or ATEX approved*	
Calibration	3 month interval using air or certified span gas or air with O ₂ value approximating 80% of full scale range balance N ₂	
Compensation	Temperature compensation as standard; barometric pressure compensation on analyzer versions (GPR-2500A only)	
Connections	1/8" compression tube fittings	
Controls	Water resistant keypad; menu driven range selection, calibration and system functions	
Display	Graphical LCD 70 x 35mm; resolution .01 ppm	
Enclosure	See individual models on reverse for material, size and weight	
Flow sensitivity	None between 0.2 to 2.4 NI/min, 0.5 to 0.95 NI/min recommended	
Linearity	±1% of full scale	
Pressure	Inlet	Regulate to 0.3 to 2 barg to deliver 0.5 to 0.9 NI/min flow to transmitter
	Vent	Atmospheric
Power	12 to 24 V DC, loop powered for transmitters; 12 to 28 V DC or 110 to 220 V AC (GPR-2500A only)	
Response time	90% of final full scale reading in 13 seconds	
Sensitivity	<0.5% of full scale range	
Sensor model	See individual model numbers	
Sensor life	24 to 32 months in <1000 ppm O ₂ @ +25°C and 1 atmosphere	
Signal output	4-20 mA	
Temperature range	-10 to +45°C (GPR sensor) -20 to +45°C (XLT sensor)	
Warranty	12 months analyzer, 12 months sensor	
Wetted parts	Stainless steel	
Optional Equipment		
Sample conditioning - pump, filter, scrubbers - contact Michell Instruments		

*See certification box

ATEX Certified - Directive 94/9/EC
Examination Cert: INERIS 08ATEX0036



II 2 G
Ex ib IIB T4
T_{amb} -20°C to +50°C



0080

GPR-2500 Series

Percent Level Oxygen Analyzers for General Purpose and Hazardous Areas

Every GPR-2500 from AII has the following features as standard (unless otherwise stated):

- 4 ranges from 0-1%, 0-5%, 0-10%, 0-25%**
- Standard sensor models are designated GPR, for gases containing >0.5% CO₂ the XLT sensor should be selected
- 12 to 24 V DC loop powered
- Temperature compensation (T)
- Stainless steel wetted parts
- 3 month calibration intervals
- 4 button user interface with LCD display
- ATEX versions require intrinsic safety barrier MTL7706+ or equivalent

Model	Case type	Sensor type	Sensor life (months)	Model specific features
GPR-2500	1	GPR-11-32-RTS or XLT-11-24-RTS	GPR = 32 XLT = 24	N/A
GPR-2500N	2	GPR-11-32-4 or XLT-11-24-4	GPR = 32 XLT = 24	N/A
GPR-2500S	1	GPR-11-32-RTS or XLT-11-24-RTS	GPR = 32 XLT = 24	Atmospheric sampling; Inlet pressure for cal gas as per standard spec;
GPR-2500SN	2	GPR-11-32-4 or XLT-11-24-4	GPR = 32 XLT = 24	Atmospheric sampling; Inlet pressure for cal gas as per standard spec;
GPR-2500A	2	GPR-11-32-4 or XLT-11-24-4	GPR = 32 XLT = 32	Barometric pressure compensation; 2 user configurable alarms, field programmable***; 12 to 28 V DC 2 wire loop or 110 to 220 V AC (mains powered)
GPR-2500 ATEX	1	GPR-11-32-RTS or XLT-11-24-RTS	GPR = 32 XLT = 24	N/A
GPR-2500N ATEX	2	GPR-11-32-4 or XLT-11-24-4	GPR = 32 XLT = 24	N/A
GPR-2500S ATEX	1	GPR-11-32-RTS or XLT-11-24-RTS	GPR = 32 XLT = 24	Atmospheric sampling; Inlet pressure for cal gas as per standard spec;
GPR-2500SN ATEX	2	GPR-11-32-4 or XLT-11-24-4	GPR = 32 XLT = 24	Atmospheric sampling; Inlet pressure for cal gas as per standard spec;
GPR-2500 AMO	2	GPR-11-120-4	GPR = 24	0-100% full scale range; Barometric pressure compensation; 2 user configurable alarms, field programmable***; 12 to 28 V DC 2 wire loop or 110 to 220 V AC (mains powered)

**The GPR-2500 AMO is ranged 0-100% full scale

***Alarms are magnetic coils rated 3 A @ 100 V A C, field programmable alarm time delays, alarm bypass for calibration and system fail alarm

Case Type 1



Technical Specifications

Material	Painted aluminium
Weight	3.6kg
Dimensions	23 x 10 x 8cm (h x w x d)

Case Type 2



Technical Specifications

Material	Fiberglass NEMA 4X
Weight	4.5kg
Dimensions	21 x 17 x 11cm (h x w x d)

GPR-7500 AIS/IS

ATEX Online H₂S Analyzers



The GPR-7500 IS transmitter and GPR-7500 AIS analyzer measure hydrogen sulfide ppm in gas streams. Both units are ATEX certified for use in hazardous areas.

The analyzer (AIS version) offers barometric pressure compensation, alarm relays and Modbus RTU communication.

Highlights

- 4-20 mA output as standard
- 2 x field selectable concentration alarms (AIS only)
- Modbus communication (AIS only)
- Standard sample includes sample/span valve, moisture filter, flow meters
- Optional sample system
- 12 to 28 V DC power or ATEX certified mains power
- Typical sensor life 24 months

Application

- Measurement of trace H₂S in natural gas

Technical Specifications

Accuracy	<2% of full scale range under constant conditions	
Analysis ranges	0-20, 0-50, 0-100 ppm full scale ranges; auto-ranging or manually lock on single range	
Approvals	Certified for use in hazardous areas* UL: United States: UL 1203, UL 913, UL 508 Canada: CAN/CSA C22.2 No. 30-M1986, CAN/CSA C22.2 No. 157-92, CAN/CSA C22.2 No. 14-10 ATEX: Directive 94/9/EC	
Area classification	ATEX Certified: EX II 2 G Ex d [ib] ib IIB T4 T _{amb} -20 to +50°C	
Alarms	Two user configurable concentration alarm relays rated 3 A @ 100 V AC; field programmable alarm time delays; alarm bypass for calibration (AIS only)	
Calibration	Span gas 50 to 100 ppm H ₂ S balance air	
Compensation	Barometric pressure (AIS standard)	
Connections	1/4" min; 3/8" if vent line >3m	
Controls	Water resistant keypad; menu driven range selection, calibration and system functions	
Display	Graphical LCD 70 x 35mm; resolution 0.1 ppm; displays real time ambient temperature and pressure	
Enclosure	NEMA Type 3R for rain in outdoor applications	
Flow	Maintain constant flow, 0.2 NI/min recommended	
Linearity	±1% of full scale	
Pressure	Inlet	Regulate to 0.3 to 2 barg to deliver constant 0.2 NI/min flow
	Vent	Atmospheric
Power	12 to 28 V DC 110 to 220 V AC (AIS only)	
Response time	90% of final reading in 90 seconds	
Sample system	Coalescing filter, flow meters, sample/span valve; Note: Sensor requires 2 to 3 hours exposure to air to recover from exposure to moisture.	
Sensitivity	<0.5% of full scale range	
Sensor model	OSV-72-BH (standard ranges)	
Sensor life	24 months @ +25°C and 1 atmosphere	
Signal output	4-20 mA Modbus RTU communication (AIS only)	
Operating range	-10 to +45°C	
Warranty	12 months analyzer; 12 months sensor	
Wetted parts	Stainless steel	
Optional Equipment		
Sample conditioning systems - contact Michell Instruments		
OSV-72-BE sensor for 0-500 ppm, 0-1000, 0-2000 ppm full scale ranges		

*See certification box

ATEX Certified - Directive 94/9/EC
Examination Cert: INERIS 10ATEX0020



II 2 G
Ex ib IIB T4
T_{amb} -20°C to +50°C



GPR-7100 Portable

Rechargeable Battery Powered H₂S Analyzer

Technical Specifications



The GPR-7100 portable H₂S analyzer measures hydrogen sulfide, with 3 ranges available. This unit has ATEX certification pending for use in hazardous areas.

The analyzer offers flexibility to sample gases from multiple points. It is supplied with coalescing filter, flow meters and an integral sample pump.

Highlights

- Sensitivity 0.5% full scale
- 3 ranges standard
- Auto ranging or single fixed
- Integral sample pump
- 0 to 1 V signal output
- Operable during recharging (safe area only)

Application

- Measurement of trace H₂S in natural gas

Accuracy	<2% of full scale range under constant conditions				
Analysis ranges	0-20, 0-50, 0-100 ppm full scale ranges; Auto-ranging or manually lock on single range				
Approvals	None; UL and ATEX certifications pending				
Calibration	Span gas 50-100 ppm H ₂ S balance air				
Compensation	Barometric pressure, temperature not required				
Connections	1/8" compression tube fittings				
Controls	Water resistant keypad; menu driven range selection, calibration and system functions				
Display	Graphical LCD 0.8 x 0.4"; resolution .1 ppm; displays real time ambient temperature and pressure				
Enclosure	Painted aluminium NEMA 4X, 1.2 x 2.7 x 0.9m, 3.6kg				
Flow	Maintain constant flow; 0.2 NI/min recommended				
LED Indicators	Low battery (72 hour warning); charge mode				
Linearity	±1% of full scale range				
Pressure	<table border="0"> <tr> <td>Inlet</td> <td>Regulate to 0.3 to 2 barg to deliver constant 0.2 NI/min flow</td> </tr> <tr> <td>Vent</td> <td>Atmospheric</td> </tr> </table>	Inlet	Regulate to 0.3 to 2 barg to deliver constant 0.2 NI/min flow	Vent	Atmospheric
Inlet	Regulate to 0.3 to 2 barg to deliver constant 0.2 NI/min flow				
Vent	Atmospheric				
Power	Rechargeable battery, 60 day duty cycle				
Response time	90% of final full scale reading in 90 seconds				
Sample system	Coalescing filter, flow meters and integral sample pump				
Sensitivity	<0.5% of full scale range				
Sensor model	OSV-72-BH (standard ranges)				
Sensor life	24 months @ +25°C and 1 atmosphere				
Signal output	0 to 1 V				
Operating range	-10 to +45°C				
Warranty	12 months analyzer; 12 months sensor				
Wetted parts	Stainless steel				
Optional Equipment					
Sample conditioning systems - contact Michell Instruments					
Ranges: 0-500, 0-1000, 0-2000 ppm Full Scale ranges (OSV-72-BE sensor)					

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