Advanced Instruments Inc.

ATEX Certified

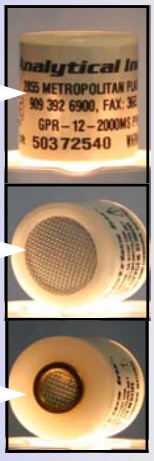
+0080

Explosion Proof Oxygen Analyzers

- ***Marking:*** d IIB + H2 T6
- ***SS Sample System***
- ***Flame Arrestors***
- ***Multiple Ranges***
- ***4-20mA Output***
- ***Adjustable Alarms***

Advanced Sensor Technology

- ***ppb O_2 Analysis***
- ***ppm O_2 Analysis***
- ***% O_2 Analysis***



- ***Proprietary ppb Sensor***
- ***Accuracy < 1% of Scale***
- ***Sensitivity < .5% of Scale***
- ***Long Life No Maintenance***

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Technical Specifications

	GPR-18 MS	GPR-18	GPR-28
Accuracy:	< 1% of FS range under constant conditions	< 1% of FS range under constant conditions	< 1% of FS range under constant conditions
Analysis:	0-1 ppm, 0-10, 0-100, 0-1000 ppm FS ranges	0-10 ppm, 0-100, 0-1000 ppm, 0-1%, 0-25%	0-1%, 0-5%, 0-10%, 0-25% FS ranges
Application:	Oxygen analysis from 10 ppb to 1000 ppm in inert, He, H2, mixed gas streams	Oxygen analysis from 100 ppb to 1% in inert, He, H_2, mixed, and acid (CO_2) gas streams (a)	Oxygen analysis from 0.05% to 100% in inert, He, H_2, mixed and acid (CO_2) gas streams (a)
Approvals:	ATEX explosion proof Ex d IIB+H_2 T6, CE	ATEX explosion proof Ex d IIB+H_2 T6, CE	ATEX explosion proof Ex d IIB+H_2 T6, CE
Area Classification:	Enclosure Class 1, Division 1, Groups B, C, D NEMA4/7	Enclosure Class 1, Division 1, Groups B, C, D NEMA4/7	Enclosure Class 1, Division 1, Groups B, C, D NEMA4/7
Alarms:	2 adjustable form C relay contacts non-latching; sensor and power failure	2 adjustable form C relay contacts non-latching; sensor and power failure	2 adjustable form C relay contacts non-latching; sensor and power failure
Calibration:	Certified gas of O_2 balance N_2 approximating 80% of range above analysis range recommended for optimum results	Certified gas of O_2 balance N_2 approximating 80% of range above analysis range recommended for optimum results	Certified gas of O_2 balance N_2 approximating 80% of range above analysis range recommended for optimum results
Compensation:	Temperature	Temperature	Temperature
Connections:	1/8" compression tube fittings	1/8" compression tube fittings	1/8" compression tube fittings
Controls:	Explosion proof actuators for range selection, zero and span calibration adjustments	Explosion proof actuators for range selection, zero and span calibration adjustments	Explosion proof actuators for range selection, zero and span calibration adjustments
Display:	3-1/2 digit bright red LCD; resolution .001 ppm	3-1/2 digit bright red LCD; resolution .01 ppm	3-1/2 digit bright red LCD; resolution .001%
Enclosure:	Painted aluminum 16x18x11" wall mt., 70 lbs.	Painted aluminum 16x18x11" wall mt., 70 lbs.	Painted aluminum 16x18x11" wall mt., 70 lbs.
Flow Sensitivity:	None between 1-3 SCFH, 1 SCFH recommended	None between 1-5 SCFH, 2 SCFH recommended	None between 1-5 SCFH, 2 SCFH recommended
Linearity:	> .995 over all ranges	> .995 over all ranges	> .995 over all ranges
Pressure:	Inlet - regulate to 20-50 psig, max 150 psig; vent - atmospheric not to exceed ±5" water	Inlet - regulate to 5-30 psig, max 150 psig; vent - atmospheric not to exceed ±14" water column	Inlet - regulate to 5-30 psig, max 150 psig; vent - atmospheric not to exceed ±14" water column
Power:	Specify 100/120 or 220/240 VAC	Specify 100/120 or 220/240 VAC	Specify 100/120 or 220/240 VAC
Recovery Time:	O_2 Level / Duration / O_2 Target / Recovery	O_2 Level / Duration / O_2 Target / Recovery	O_2 Level / Duration / O_2 Target / Recovery
	Air / 30 sec / 1 ppm / 45 min	Air / 2 min / 10 ppm / 60 min *	Air / 2 min / 0.1% ppm / < 30 sec
	9 ppm / 2 min / 10 ppb / 10 min	Air / 2 min / 1 ppm / 20 min **	
	1 ppm / 5 min / 10 ppb / 15 min	* Installation ** In service for 2 weeks at 1	
Response Time:	90% of final FS reading < 20 seconds	90% of final FS reading < 10 seconds	90% of final FS reading < 10 seconds
Sample System:	Flow control and shut off valves; flow indicator	Flow control and shut off valves; flow indicator	Flow meter with integral valve
Sensitivity:	< 0.5% of FS range	< 0.5% of FS range	< 0.5% of FS range
Sensor Model:	GPR-12-2000MS	GPR-12-333	GPR-11-32-4
Sensor Life:	36 mos at 25ºC, 1 atm; average O_2 < 100 ppm	24 mos at 25ºC, 1 atm; average O_2 < 1000 ppm	36 months in air at 25ºC, 1 atm
Signal Output:	4-20mA isolated and 0-1V	4-20mA isolated and 0-1V	4-20mA isolated and 0-1V
Temp. Range:	5º to 45ºC	5º to 45ºC (GPR), -20º to 45ºC (XLT sensor)	-10º to 45ºC (GPR), -20º to 45ºC (XLT sensor)
Warranty:	12 months analyzer; 12 months sensor	12 months analyzer; 12 months sensor	12 months analyzer; 12 months sensor
Wetted Parts:	Stainless steel	Stainless steel	Stainless steel
	Optional Equipment	**Optional Equipment**	**Optional Equipment**
	No sensor option with > 0.5% CO_2 present	(a) XLT-12-333 sensor with > 0.5% CO_2 present; 24 month sensor life	(a) XLT-11-24-4 sensor with > 0.5% CO_2 present; 24 month sensor life
	Temperature controlled heater system	Temperature controlled heater system	Temperature controlled heater system
	Sample conditioning systems - contact factory	Sample conditioning systems - contact factory	Sample conditioning systems - contact factory

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