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Certification Record

Listing#: E115647
Report #: R15816A/00
Original Certification Date: August 15, 2023
Revised Certification Date:

This Certification is issued to:

Analytical Industries Inc
2855 Metropolitan Place, Pomona, CA 91767 United States of America

Stating that the product(s):

Gas Analyzer - Portable, Online and Loop Powered

Achieved Certification to the following standard(s):

UL 60079-0 (Edition 7) 2019 rev 2020	CSA C22.2 No. 60079-0 (Edition 4) 2019
UL 60079-11 (Ed 6) 2013 rev 2018	CSA C22.2 No. 60079-11 (Edition 2) 2014 R 2018
UL 60079-1 (Ed.7) 2020	CSA C22.2 NO. 60079-1:16 (R2021)
UL 1203:2022 Ed.5	CSA C22.2 NO. 30:20
UL 61010-1:2019+Corr1:2019	CSA C22.2 No. 61010-1:2017 Ed.3

Eurofins MET Labs Safety Laboratory

All changes proposed in the previously identified product that affects the above information must be submitted to Eurofins MET Labs for evaluation prior to implementation to assure continued MET Certification status.

The covered product(s) shall be subject to follow-up inspections to ensure that the Certified product(s) are identical to the product sample evaluated by Eurofins MET Labs and that all manufacturer's responsibilities are being fulfilled as specified in the Manufacturer's Responsibility section of the Certification report. The applicant named above has been authorized by Eurofins MET Labs to represent the product(s) listed in this record as "MET Certified" and to mark this/these product(s) according to the terms and conditions of the MET Applicant Contract, MET Listing Reports, and the applicable marking agreements. Only the product(s) bearing the MET Mark and under a follow-up service are considered to be included in the MET Certification program. This certification has been granted under a System 3 program as defined in ISO/IEC 17067.

SCC Accredited CB-P/S OCPS Accrédité CCN

Eurofins MET Labs is accredited by OSHA and the Standards Council of Canada.
Eurofins MET Labs – The Nation's First Nationally Recognized Testing Laboratory

Addendum - Certification Record

Listing#: **E115647**
Report #: **R15816A/00**
Original Certification Date: **August,15, 2023**

Addendum to Certificate issued to:

Analytical Industries Inc
2855 Metropolitan Place, Pomona, CA 91767 United States of America

Product(s):

Gas Analyzer - Portable, Online and Loop Powered

Product Description:

The Gas Analyzer have types Portable, Online and Loop Powered. All types are housed within aluminium enclosures. The Portable Gas Analyzer is intended to be used for mobile measurements. The Online Gas Analyzer and the Loop Powered Gas Analyzer being for a fixed installation. All the models can connect to the following Oxygen or H2S sensors.

Portable Gas Analyzer (GPR-1000, -1100, -1200, -2000, -7100)
Battery powered by a single lead acid battery. It has a SD card connection and a charging port for the battery for use in the safe area only. The Analogue Port is intrinsically safe when connected to an intrinsically safe interface in a hazardous area.

Online Gas Analyzer (GPR-1500, -1800, -2500, -2800, -7500 (AIS/IS)
Powered from a safe area via an intrinsically safe interface located in an explosionproof housing.

Loop Powered Gas Analyser (GPR-1500, -1800, -2500, -2800, -7500 (AIS/IS)
Powered from an intrinsically safe barrier.

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Hazardous Location Marking US and CAN (or Equivalent):

Portable Oxygen Gas Analyzer

Class I, Division 1, T4, Groups A, B, C and D Class I, Zone 0 AEx ia IIC T4 Ga -20°C ≤ Tamb ≤ +50°C	Class I, Division 1, T4, Groups A, B, C and D Ex ia IIC T4 Ga -20°C ≤ Tamb ≤ +50°C

On-Line Oxygen Gas Analyzer

Class I, Division 1, T4, Groups B, C and D Class I, Zone 1 AEx db ia IIB+H2 T4 Gb -20°C ≤ Tamb ≤ +50°C	Class I, Division 1, T4, Groups B, C and D Ex db ia IIB+H2 T4 Gb -20°C ≤ Tamb ≤ +50°C

Loop Powered Oxygen Gas Analyzer

Class I, Division 1, T4, Groups A, B, C and D Class I, Zone 0 AEx ia IIC T4 Ga -20°C ≤ Tamb ≤ +50°C	Class I, Division 1, T4, Groups A, B, C and D Ex ia IIC T4 Ga -20°C ≤ Tamb ≤ +50°C

Certification to the following standard(s):

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UL 60079-1 (Ed.7) 2020	CSA C22.2 NO. 60079-1:16 (R2021)
UL 1203:2022 Ed.5	CSA C22.2 NO. 30:20
UL 61010-1:2019+Corr1:2019	CSA C22.2 No. 61010-1:2017 Ed.3

Ratings

Portable Oxygen Gas Analyzer (GPR-1000, 1100, 1200, 2000, 7100)

Charger and SD Port:

Um: 9.45 V (Safe Area Only)

0 – 1V Analogue Port:

Um = 28 V (Safe Area Only)

Uo: 4.6 V
Io: 2 mA
Po: 2 mW
Ci: 12 nF
Co: 71 nF

Battery:

Tysonic TY-6-4.5, 6V, 4.5 Ah

Addendum - Certification Record

Ratings Continued

On-Line Oxygen Gas Analyzer (GPR-1500, 1800, 2500, 2800, 7500 (AIS/IS)

Um:	28 V
Relay:	3 A @ 30 Vdc
Supply:	12-24 VDC (DC Unit), 1A
	12-24 VDC (Loop Unit), 1A
Supply (Pump Option):	12 Vdc or 24 Vdc, 1 W

Loop Powered Oxygen Gas Analyzer (GPR- 1500, 2500)

Entity Parameters:

Ui:	28 V
Ii:	93 mA

Addendum - Certification Record

Conditions of Use

The following Conditions of Use are included in the Control Drawing/Instructions reference on the label by documents A-5592-EX, A-5593-EX and A-5594-EX respectively.

Portable Gas Analyzer

i. All versions of the enclosure are manufactured from Aluminium. In rare cases, ignition sources due to impact and friction sparks could occur. This shall be considered during installation, particularly if the equipment is installed in a Class I Division 1 or a Class I, Zone 0 location.

ii. When located in a Classified or Hazardous Area, the Portable Gas Analyzer 0-1 V analogue port shall only be connected to a suitably certified intrinsically safe connection with Uo equal to or less than the Ui of the port (28VDC). For example, this can be achieved by connecting to a diode safety barrier located in the Unclassified or Non-Hazardous Area

iii. When located in an Unclassified or Non-Hazardous Area, the Portable Gas Analyzer 0-1 V analogue port shall either be connected to a suitably certified intrinsically safe connection as per ii above, or to non-intrinsically safe equipment that has a maximum output voltage less than or equal to the Um of the port (28VDC) and which complies with one of the following:

- Class 2 Power Supply
- SELV or PELV system
- A safety isolating transformer complying with the requirements of UL 5085-3, CSA IEC 61558-2-6 or technically equivalent standard.
- Apparatus complying with the UL/CSA 60950 series, UL/CSA 61010-1, or a technically equivalent standard.
- Fed directly from cells or batteries

Addendum - Certification Record

Conditions of Use (Continued)

Online Gas Analyzer

i. All versions of the enclosure are manufactured from Aluminium. In rare cases, ignition sources due to impact and friction sparks could occur. This shall be considered during installation, particularly if the equipment is installed in a Class I Division 1 or a Class I, Zone 1 location.

ii. The Online Gas Analyzers have non-metallic parts incorporated in the enclosure of this equipment which may generate an ignition-capable level of electrostatic charge, under certain extreme circumstances. Therefore, the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. This is particularly important if the equipment is installed in a Class I Division 1 or a Class I, Zone 1 location. In addition, the equipment shall only be cleaned with a damp cloth.

iii. The Online Gas Analyzer is not capable of withstanding the 500V insulation test required by Clause 6.3.12 of UL/CSAC22.2 No. 60079-11. This shall be taken into account when installing the equipment.

The following conditions have been added due to the use of conduit and cable glands in N/A

iv. When connected using a conduit system, the Explosion-proof Enclosures type Adalet type XIHLX require conduit seals that satisfy the following requirement:

Conduit Size	Conduit Seals
1”	With 18”
¾”	Optional
½”	Optional

v. When connected with cable glands, the glands shall be a suitably Listed Explosion-proof type, suitable for the applicable Class and Division or Class and Zone, Gas Group, T-Class and ambient temperature. It shall only employ sealing around individual cores. Additional thread adapters shall not be used.

Addendum - Certification Record

Conditions of Use (Continued)

Loop Powered Gas Analyzer

i. All versions of the enclosure are manufactured from Aluminium. In rare cases, ignition sources due to impact and friction sparks could occur. This shall be considered during installation, particularly if the equipment is installed in a Class I Division 1 or a Class I, Zone 0 location.

ii. The Loop-powered Gas Analyzers have non-metallic parts incorporated in the enclosure of this equipment which may generate an ignition-capable level of electrostatic charge, under certain extreme circumstances. Therefore, the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. This is particularly important if the equipment is installed in a Class I Division 1 or a Class I, Zone 0 location. In addition, the equipment shall only be cleaned with a damp cloth.

iii. The Loop Powered Gas Analyzer is not capable of withstanding the 500V insulation test required by Clause 6.3.12 of UL/CSAC22.2 No. 60079-11. This shall be taken into account when installing the equipment.