



## PureAire Gas Detection June Newsletter

### What's New at PureAire

We at PureAire Monitoring Systems hope that your summer is off to a great start. Before the summer season kicks into high gear and everyone begins to think about vacations, please remember to prioritize good safety practices; safety never takes a vacation.

Be sure to review and update, as necessary, your safety policies and procedures to ensure that proper safety protocols are in place. Take care to protect your employees and facilities against undetected gas leaks by utilizing top-quality gas detection equipment.

We invite you to explore PureAire's complete line of Oxygen Deficiency and Carbon Dioxide Monitors, as well as our Toxic and Combustible Gas Detectors.

***Please note that PureAire will be closed on Monday, July 4th for the holiday. We will reopen on Tuesday, July 5th.***

[Visit our Website](#)

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### Monitoring Off-Gases to Guard Against Thermal Runaway Risk with Li-Ion Batteries



#### Lithium-Ion Batteries

Rechargeable lithium-ion ("li-ion") batteries (comprised of cells in which lithium ions move from a negative electrode through an electrolyte to a positive electrode during discharge—and the other way around when charging) were first described conceptually in the 1970s. Following initial prototype development in the 1980s, li-ion batteries became commercially viable in subsequent decades, and they are now commonly used in a variety of portable consumer electronic devices, including cell phones, laptops, and tablets.

Li-ion batteries also provide power for a broad array of automotive, aerospace, and commercial energy applications, such as electric vehicles (i.e., cars, trucks, buses, and trains), drones and satellites, and battery energy storage systems (or “BESS”, which enable power system operators and utilities to store energy—including that generated from renewable power sources—for later discharge and distribution as demand necessitates).

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## Industry Spotlight - Semiconductor



The semiconductor industry manufactures microchips that act as the brains in computers, tablets, smartphones, televisions, automobiles, and many other everyday devices. The fabrication of microchips includes multiple steps, using a variety of process gases to create these invaluable electronic components.

For instance, gases such as nitrogen, argon, hydrogen, helium, and oxygen are used to create inert environments, act as heat-transfer mediums for growing germanium and silicon crystals, etching polymers, and metal annealing. Arsine, diborane, and phosphine gas may be used to alter the conductivity of the semiconductor materials by modifying the electrical properties of the materials. Chlorine, hydrogen bromide, hydrogen chloride, and hydrogen fluoride are used to etch or remove areas from the wafer surface.

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## Featured Product

Our featured product is our Combustible/Toxic Gas Monitor ideal for facilities that require continuous monitoring of toxic or combustible gases in hazardous areas. The enclosure is specifically designed to prevent an explosion.

Key features include:

- Dual Sensor Capability
- Non-Intrusive One-man Calibration
- Ex Proof Enclosure Class 1, Div 1 & 2, Groups A, B, C, & D
- Local Digital Display with Bargraph & Trending
- User Adjustable Dual Alarm Relays
- 4-20 mA Analog Output
- RS-485 Modbus Optional
- NRTL CSA Approvals, ATEX Optional

[Additional Information](#)



**PureAire Google Reviews**



*"We have a total of 9 PureAire models TX-1100-DRA oxygen monitors installed. Most have been running for many years without incident or maintenance. Customer service when needed has been excellent, with quick support and service. Would not hesitate to recommend." - Matt R..*

*"During a laboratory renovation, we utilized the 8 channel controller (99058) integrated with the 1100 DRA oxygen detectors(99016) also, we included the horn strobes(42002) and remote digital display (99091). This system installed with ease and has a very user-friendly program. PureAire has multiple apparatuses for various systems and applications. I highly recommend PureAire Monitoring Systems and most definitely will revisit their product line for future projects." - Mr. Yzig*

*"Solid product, easy installation, start-up, and ease of operation! Truly a plug and play application!"  
- Richard R.*