



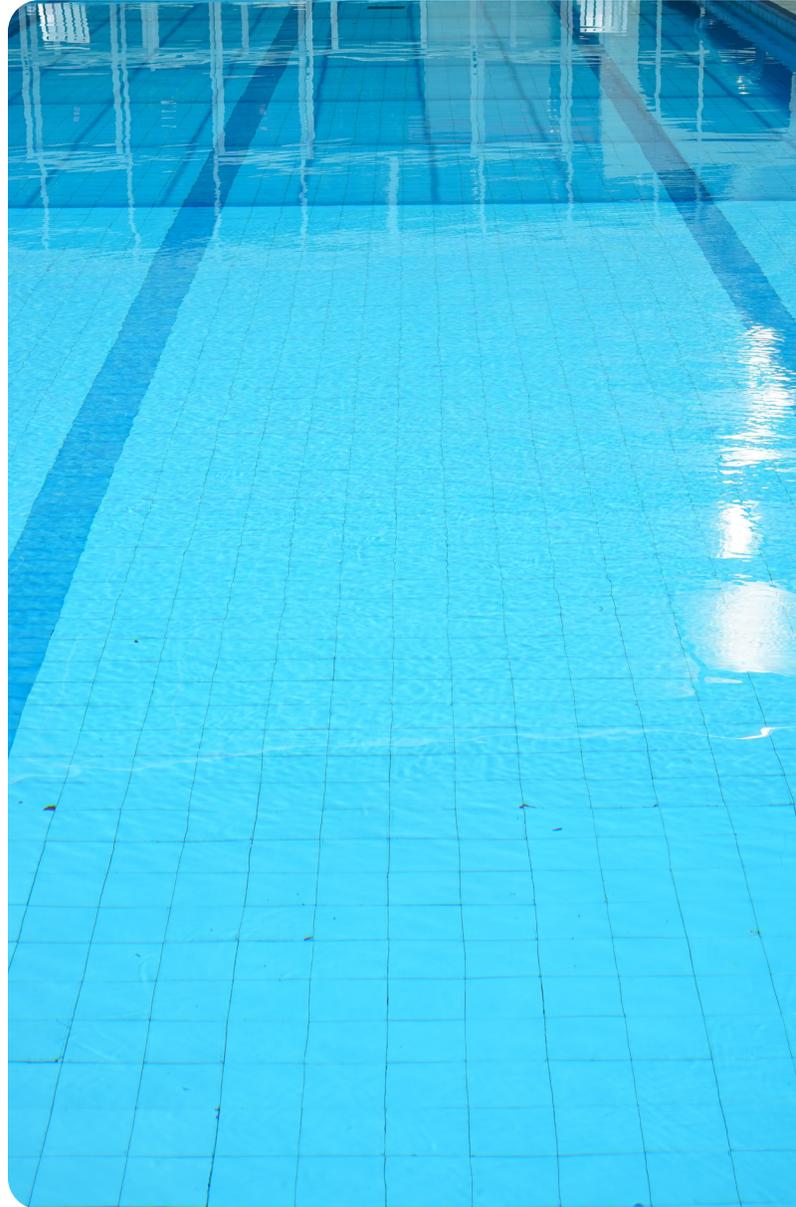
Peace of mind. Guaranteed.

Continuous monitoring of chlorine and ozone for indoor swimming pools in recreation facilities or hotels.

Indoor swimming pools provide exercise and recreational fun for all ages. In addition to complying with indoor air quality regulations, being able to detect a leak early can reduce costs that could be incurred from escaping gas and excess energy use.

Many facilities use Chlorine and Ozone to keep the water clean and sparkly. Chlorine is a common disinfectant used for water treatment programs and ozone offers excellent disinfection and oxidation properties. Ozone helps prevent the accumulation of deposits on pipes and increases the comfort of patrons by reducing red eyes, swim suit fading and other chlorine-related issues. To help ensure the health and safety of patrons and facility maintenance workers, it is important to have a continuous gas detection system to monitor for leaks in the Chlorine feed and storage room and the Ozone generator room. If a leak is detected, you want the peace of mind that comes with a properly installed gas detection system.

Using Critical Environment Technologies' [FCS](#) Flexible Control System Controller with an [LPT-A](#) transmitter with a chlorine sensor and another [LPT-A](#) transmitter with an ozone sensor will provide the coverage required.

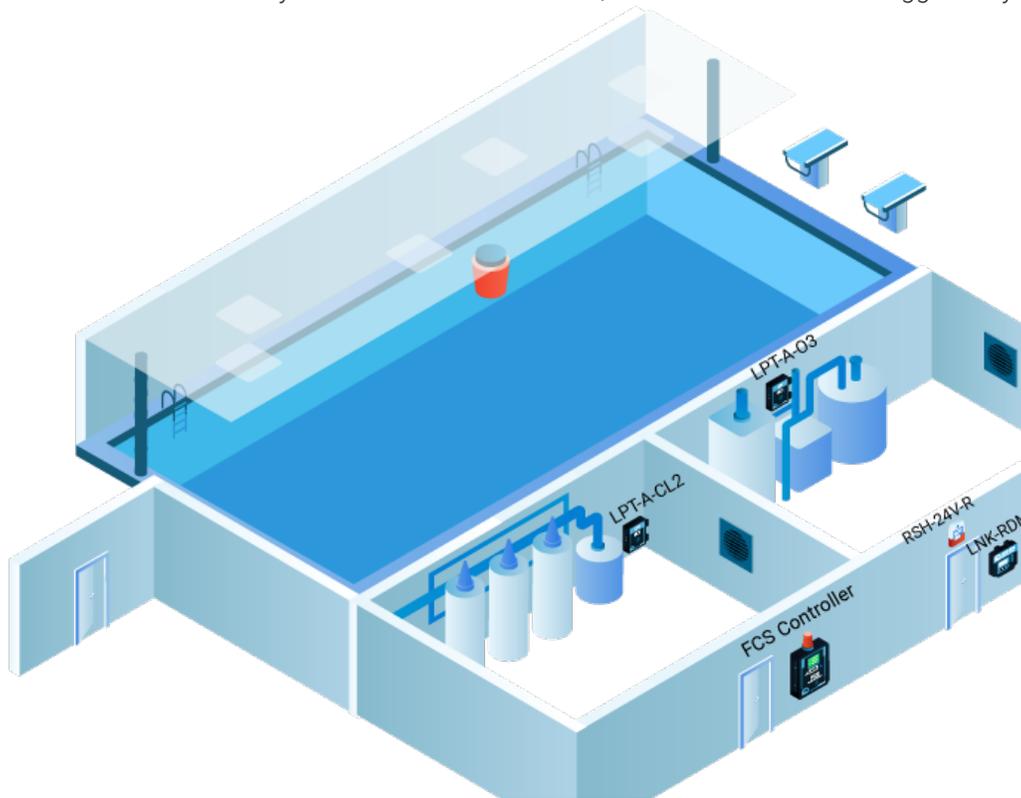


Continuous Monitoring of Chlorine (Cl₂) and Ozone (O₃) in Commercial Swimming Pool Facilities

Facilities that use ozone and chlorine as part of their disinfection program, require the Chlorine feed room and the Ozone generator room to be monitored for potential gas leaks. This is best accomplished by using a four channel FCS Controller mounted outside one of the doors with a remote LPT-A transmitter with the appropriate sensor type inside each room plus a QCC-RDM mounted outside any other room door beside the inspection window so both the Controller and the Remote Display Module can provide a visual confirmation of the gas level readings prior to entry.

The FCS Controller with the optional analog input (Option -AI) can connect to up to four analog transmitters, has a display, audible alarm and 4 relays. If there is a Chlorine leak, the FCS will alarm and trigger relays to shut down the ventilation

system until it is safe to exhaust the gas from the contaminated area or activate the ventilation system, depending on local regulation codes. If there is an Ozone leak, the FCS can be configured to trigger relays to activate the emergency air exhaust fans.



The LPT-A-CL2 remote transmitter should be mounted inside the Chlorine gas feed and storage room, close to the area of a potential leak to provide continuous monitoring. Chlorine is heavier than air and tends to collect in low-lying areas, so the LPT-A-CL2 transmitter should be mounted 6 inches above the floor.

The LPT-A-O3 remote transmitter should be mounted inside the Ozone generator room, beside the

equipment and between the generator and the destructor. Pure Ozone is slightly heavier than air but does not necessarily settle to the floor. If additional reaction tanks or destructors are more than 16 ft (5m) away from the existing sensor, an additional sensor may be required.

Both LPT-A transmitters will communicate with the FCS and each one has its own relay that can be used to trigger additional functions, such as a Remote Strobe & Horn. During routine maintenance when workers change Chlorine cylinders, the potential for a leak is increased, and it is recommended that a portable gas monitor with a Chlorine sensor be used as an additional and safe choice.

A remote visual alarm device such as the Remote Strobe (RSA-24V) should be mounted on the ceiling or wall inside the pool area to provide an additional visual alert in the event of a leak inside either room.