



AAI is proud to be one of the leading residential and HVAC safety brands in North America, with the majority of our portfolio certified to UL safety standards.

Innovative Life-Saving Solutions: AAI is dedicated to saving lives through our advanced sensing technologies. Our innovative solutions are designed to detect hazards quickly and accurately, ensuring the safety of occupants in both residential and commercial buildings.

Comprehensive Safety Products: We design and manufacture a wide range of smoke, heat, and CO detectors. These devices are crucial for safeguarding people from the dangers of fire and carbon monoxide in buildings. Our technology ensures that occupants are alerted promptly in an emergency, enabling them to evacuate safely.

Specialized Commercial Solutions: Our APC Solutions business (Air Products & Controls), excels in providing HVAC-mounted duct smoke and CO detectors. These detectors prevent the spread of smoke and CO through a building's ventilation system, protecting individuals from inhalation dangers.

Global Reach: AAI's sensing solutions are deployed worldwide, protecting millions of residential and commercial buildings.

New Product Development: We prioritize agility in our product development process and possess extensive knowledge in securing certifications from major bodies like UL. Our strength lies in adapting products to precisely fit the requirements of our customers.

Thanks to our Auburn Hills MI assembly facilities, our **lead times** are the best in the US market and we provide **live tech support** and customer care during regular business hours.



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AIR PRODUCTS & CONTROLS

DUCT MOUNTED CO DETECTORS

How duct installed Carbon Monoxide (CO) detectors can be pivotal in identifying a safety issue

A Chicago School Case Study

This case study underscores the critical role of duct CO detectors in accurately sensing and indicating carbon monoxide accumulation in building’s ductwork. By ensuring the proper functioning of the detector, a potential health hazard originating from idling bus emissions was promptly detected, leading to corrective actions. This case study highlights the importance of leveraging the capabilities of advanced detection equipment to enhance safety and well-being in indoor environments.

A technical support request was initiated by an installer responsible for maintaining APC duct CO detectors (SL-701) in a middle school located in Chicago. The contractor reported that one of the CO duct detectors was sporadically alarming during specific times throughout the school week. This unexpected behavior prompted concerns about the detector’s functionality and reliability. The duct CO detector exhibited alarms at irregular intervals, around the periods of 8 am and 3pm on weekdays. The unpredictable nature of these alarms raised doubts about the sensor’s accuracy and raised the possibility of false alarms.

The APC technical support team advised the contractor to temporarily implement a point CO detector. This device would be used during the times when the duct CO detector was alarming to verify whether the alarms were stemming from installation issues or operational anomalies. The point CO detector **detected trace amounts of carbon monoxide** during the time periods when the duct installed alarms were being triggered. This confirmed that the alarms were warranted and not the result of sensor malfunction.

The accurate CO detection provided by the SL-701 led to the identification of a significant safety concern.

Investigation revealed that a classroom, situated at the back of the school, had windows frequently opened by a teacher. This room was in proximity to an area where diesel **school buses** idled during student pickup and drop-off, resulting in CO intrusion in the classroom and in the HVAC system.

Carbon Monoxide levels (PPM)	Alarm response time	Red Status LED
50-70 parts per million (OSHA IAQ)	For 8 hours	2 Flashes
70-150 parts per million (UL 2075 / 2034)	For 2 hours	3 Flashes
150-400 part per million (UL 2075 / 2034)	For 15 minutes	4 Flashes
400+ parts per million (UL 2075 / 2034)	For 5 minutes	5 Flashes

Mitigating Health Risks: The incident emphasized the importance of accurate CO detection. By promptly identifying the exposure to carbon monoxide from the idling buses, the school administration were enabled to take action to mitigate health risks for both students and staff.

Enhanced Awareness: The incident underscored the necessity of educating staff and students about the potential sources of CO exposure and the significance of proper indoor air quality.

Conclusion: Air Products & Controls SL-701 duct CO detectors effectively senses CO accumulation, allowing the discovery of potential health hazards and promoting the implementation of corrective measures.

SL-701 Duct CO Detector



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