SENSORCON Sensing Solutions by molex

Police CO Meters



Summary:

Law Enforcement officers face a new potential risk while performing their already physically demanding jobs. This risk is not one that can be seen or smelled, but one that can have harmful effects if not monitored. Officers spend much of their time inside their patrol vehicles as the job requires them to do so. If there are cracks in the exhaust manifold, an officer could potentially be exposed to high levels of carbon monoxide. A police Department in Texas said it pulled nearly 400 vehicles from its fleet after finding that 20 officers tested positive for elevated levels of carbon monoxide, and in Massachusetts another Police Department said three of its officers had been sent to the hospital for "high carbon-monoxide levels" and that one officer was in a minor crash as a result of CO poisoning.¹

Sources of CO in vehicles- Carbon Monoxide is an odorless, tasteless and poisonous gas that results from incomplete combustion of carbon containing compounds. Inhalation causes central nervous system damage and asphyxiation.

 A malfunctioning exhaust system in the patrol vehicle can also allow leakage of carbon monoxide gas into the vehicle cab, leaving you breathing toxic gas without knowing it. Many Departments outsource their vehicle upfitting to a third party, if the new holes that are created through the firewall to run wires for lights are not sealed properly, carbon monoxide can leak into the cab.

Inhalation Effects of CO-Carbon Monoxide (CO) is a highly toxic gas in large concentrations. It poses a very serious inhalation hazard.

- The most common symptoms of carbon monoxide inhalation are headaches, nausea, vomiting, dizziness, fatigue, and a feeling of weakness. Large exposures can result in loss of consciousness, arrhythmias, seizures, or death.
- 50 ppm -According to the Occupational Safety & Health Administration (OSHA), this is the maximum allowable concentration for continuous exposure for healthy adults in any eight-hour period.



- 100 -200 ppm Slight headache, fatigue, dizziness, and nausea after two to three hours.
- 400 ppm Frontal headaches within 1-2 hours.
 Life threatening after three hours.
- 800 ppm- Dizziness, nausea, and convulsions within 45 minutes. Unconsciousness within two hours. Death within two to three hours.
- 1600 ppm- Headache, dizziness and nausea within 20 minutes. Death within one hour.

Wiener, Danielle. "Austin Pulls Ford Explorers from Police Fleet after Cops Get Sick from Carbon Monoxide." CNNMoney, Cable News Network, 28 July 2017, money.cnn.com/2017/07/28/news/companies/austin-ford-explorers

CARBON MONOXIDE AWARENESS IN LAW ENFORCEMENT



Users within Law Enforcement-

- Since 2011, the Sensorcon Inspector has been protecting our officers
- There are numerous departments across the U.S. who have chosen the Sensorcon Inspector to monitor CO levels inside their patrol vehicles
- Police Departments in warm or cold climates have reliably used our devices to monitor CO levels
- Users install our product inside their patrol vehicles or clip them onto their duty bags.

Safety Precautions:

- If the CO detector alarms, exit the vehicle and provide adequate ventilation to the patrol car.
- After a sufficient period of time, take a second CO reading of the level inside the vehicle cab. If CO is still present, notify your supervisor or report this issue to the vehicle fleet department.
- 3. Be sure not to enter the vehicle when there are high levels of CO present.



Sensorcon Inspector/Carbon Monoxide Detector



Key Features:

- 1. Waterproof, shockproof, dust proof enclosure
- 2. Featuring a LCD / LED real time display with all features located on it.
- Featuring LED lights with a vibration mode. This notifies the Officer when the alarm set points are reached, factory set to 10ppm low and 15ppm high, but can easily be adjusted.
- 4. The audible alarm reaches 80 to 85db.
- Max Mode displays the maximum Carbon Monoxide level you are exposed to when switched on. The Mute function allows the Officer to silence the audible alarm feature.
- Steel Alligator clip allows an easy attachment to vehicle dash/ visor, etc..