

New Product Announcement

from the MSA Instrument Division

MSA (Mine Safety Appliances Company), Pittsburgh, Pa.



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For Immediate Release

**MSA Releases Gas Detection System
for Monitoring CO₂ and CO in Highway Tunnels**

MSA recently designed and engineered a gas detection system for a metropolitan port authority that enables them to monitor carbon monoxide and carbon dioxide in an HOV tunnel and a bus tunnel. This project required both a fast response (best provided by locating ambient air sensors within the tunnel) and a way to automatically calibrate these sensors monthly without having to close down the tunnels. The customer was looking for a computer-based system that would be visible at the control room with the future capability of being visible at their main maintenance facility some 20 miles away. The software and equipment had to be easy to operate, and be OPEN protocol for easy future upgrading.

The monitoring solution uses MSA Ultima® X Sensors that share common electronics and the ability to communicate with digital communication systems via 4/20mA outputs. Four sites in the tunnel are each monitored by four Ultima XE Gas Monitors for the presence of carbon monoxide and carbon dioxide gas. A built-in heater for the carbon dioxide sensors helps eliminate the effects of high moisture in the tunnel. Tunnel conditions require that sensors be mounted in a common stainless steel enclosure at an elevation above the height of a normal port authority bus.

In order to send and receive communications with the eight Ultima XE sensors located within the tunnel, the system uses Echelon LonWorks and Intellution Software. As a member of the LonWorks family of products, other LonWorks-compatible devices will operate along with MSA's family of Ultima Plus Digital Network Devices on the Ultima Plus Digital Network Communications Cable.

An Ultima Plus Digital Network System is used to monitor the two tunnels. Each tunnel's system operates independently, collecting real-time gas readings from each of the 4 locations and reporting back to an Ultima Plus Data Center Computer via a Lonworks twisted-pair data line. The computer displays gas monitor readings, control functions, component status and more, analyzes the readings, and generates fault and alarm indications, as well as performing a full sensor calibration every 30 days.

For more information on the **MSA Gas Detection System for Monitoring CO₂ and CO in Highway Tunnels** request literature # **07-2116** by visiting www.MSAliterature.com, or contacting your nearest MSA sales representative. To learn about MSA and our other high-quality products, call 1-800-MSA-4678 or visit our web site at:

www.MSAgasdetection.com

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