

## UNISSET STAND-ALONE GAS MONITOR

UN-ECH Series  
September 2011

CO (Carbon Monoxide), NO<sub>2</sub> (Nitrogen Dioxide), CH<sub>4</sub> (Methane), C<sub>3</sub>H<sub>8</sub> (Propane), H<sub>2</sub> (Hydrogen), O<sub>2</sub> (Oxygen), NH<sub>3</sub> (Ammonia), H<sub>2</sub>S (Hydrogen Sulfide), Cl<sub>2</sub> (Chlorine)

### Features

- High-accuracy Electrochemical Cell sensor for toxic gases and Catalytic (Pellistor) for flammables
- 3 or 4-stage SPDT relay outputs with LED status indicators
- NEMA 3 Robust Enclosure
- Microprocessor-based control.
- 10-Step Bar-Graph Display of gas levels
- Programmable time delays to avoid nuisance alarms
- Optional 4-20mA, 0-1V DC, 0-5V DC or 0-10V DC analog output
- Optional remote sensor

### Applications

- Energy savings through the intermittent operation of ventilation equipment in enclosed areas
- Commercial or industrial locations where a sudden build-up of toxic and/or flammable gases may occur
- Car Parking and Bus Maintenance Garages, Tunnels, Warehouses, Factories Food Processing and Bottling Plants, Wastewater Treatment Plants, Steel Mills, Cryogenic laboratories and Incineration Rooms
- Stand-alone with relay outputs or analog outputs for direct connection to the existing Building Management System (BMS) or DDCS



**The Acme UniSet, with its microprocessor-based system, features a high quality stand-alone controller providing all the necessary hardware for the continuous monitoring of a variety of toxic and combustable gases. This unit is primarily geared towards providing alarm activated relays for simple applications such as small parking garages.**

**T**he UniSet employs the best sensing technologies available: electrochem and pellistor (catalytic combustion) cells. These quality components provide virtually instantaneous detection of targeted gasses and deliver long-term trouble-free operation.

Installed within the monitored space, the Uniset monitors targeted gas concentration rates and automatically operates the mechanical ventilation system of a facility. Upon detection of low levels of hazardous and flammable gases the ventilation system is energized thereby protecting occupants, personnel and gas-sensitive goods and products.

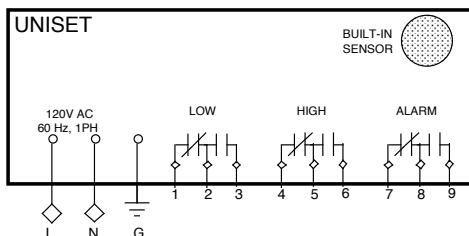
The Uniset contains all the well-known standard features of ACME's gas detection line; a robust enclosure, the latest sensing technologies and state-of-the-art electronics.

## Standard unit specifications

<b>GASES DETECTED:</b>	CO, NO <sub>2</sub> , O <sub>2</sub> , H <sub>2</sub> , CH <sub>4</sub> (Methane), C <sub>3</sub> H <sub>8</sub> (Propane), NH <sub>3</sub> , H <sub>2</sub> S, Cl <sub>2</sub>
<b>SENSOR TECHNOLOGY:</b>	3-Electrode Electrochemical Cell
<b>TOXIC:</b>	Catalytic Pellistor
<b>FLAMMABLE:</b>	
<b>SENSING METHOD:</b>	Diffusion
<b>POWER REQUIREMENTS:</b>	24V or 120V or 240V 50/60HZ
<b>OUTPUTS:</b>	3 or 4-stage Relay; Contact rating 3 A @ 120VAC inductive
<b>OPTIONAL:</b>	4-20mA, or one of the following 0-1V DC 0-5V DC 0-10V DC
<b>OPERATING TEMPERATURE:</b>	-4°F to 120°F (-20°C to +50°C)
<b>HUMIDITY RANGE:</b>	15-90% RH
<b>ACCURACY:</b>	+/- 5% of Calibrated value (electrochemical sensors) +/- 1 LEL CH <sub>4</sub> (pellistor)
<b>REPEATABILITY:</b>	2% of Signal
<b>RESPONSE TIME (T90%):</b>	40 seconds
<b>EXPECTED SENSOR LIFETIME:</b>	<u>Electrochemical</u> 7 years for CO only 2 years for other gases <u>Pellistor</u> 3 years
<b>ENCLOSURE:</b>	NEMA 3 Polystyrene Grey Surface Mounting
<b>DIMENSIONS:</b>	6.9" x 6.9" x 4.3" (174mm x 174mm x 110mm)
<b>APPROVALS:</b>	CAN/CSA C22.2 No. 61010-1:2004 ANSI/UL 61010-1:2004

## Typical Wiring Diagram

TYPICAL DRAWING IS SHOWN FOR UN3



## Ordering Information

### MODEL NUMBER

CO-UNR*-X**-Y***	Carbon Monoxide
NH3- UNR*-X**-Y***	Ammonia
NO-UNR*-X**-Y***	Nitrogen Dioxide
H2-UNR*-X*-Y***	Hydrogen
CH4-UNR*-X*-Y***	Methane
C3H8-UNR*-X**-Y***	Propane
O2-UNR*-X**-Y***	Oxygen
H2S-UNR*-X**-Y***	Hydrogen Sulphide
Cl2-UNR*-X**-Y***	Chlorine

## Output Options

*R=3 FOR 3 RELAYS; 4 FOR 4 RELAYS +	ANALOG OUTPUT SIGNAL
420	4-20mA, 500Ω Max
001	0-1V DC, 10KΩ Min
005	0-5V DC, 10KΩ Min
010	0-10V DC, 10KΩ Min

## Power Supply Options

**X	LINE VOLTAGE
24	24 V 50/60 HZ
120	120V 50/60 HZ
240	240V 50/60 HZ

\*\*\*Y=1 Bar Graph

\*\*\*Y=0 or leave empty for no Bar Graph

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