

UNISSET STAND-ALONE GAS MONITOR

UN-ECH Series
January 2009

CO (Carbon Monoxide), NO₂ (Nitrogen Dioxide), CH₄ (Methane), C₃H₈ (Propane), H₂ (Hydrogen), O₂ (Oxygen), NH₃ (Ammonia)

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 combustible gasses. This unit is primarily geared towards providing alarm activated relays for simple applications such as small parking garages.

The 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

GASES DETECTED:	CO, NO ₂ , O ₂ , H ₂ , CH ₄ (Methane), C ₃ H ₈ (Propane), NH ₃
SENSOR TECHNOLOGY:	3-Electrode Electrochemical Cell
TOXIC:	Catalytic Pellistor
FLAMMABLE:	
SENSING METHOD:	Diffusion
POWER REQUIREMENTS:	24V or 120V or 240V 50/60HZ
OUTPUTS:	3 or 4-stage Relay; Contact rating 3 A @ 120VAC inductive
OPTIONAL:	4-20mA, or one of the following 0-1V DC 0-5V DC 0-10V DC
OPERATING TEMPERATURE:	-4°F to 120°F (-20°C to +50°C)
HUMIDITY RANGE:	15-90% RH
ACCURACY:	+/- 5% of Calibrated value (electrochemical sensors) +/- 1 LEL CH ₄ (pellistor)
REPEATABILITY:	2% of Signal
RESPONSE TIME (T90%):	40 seconds
EXPECTED SENSOR LIFETIME:	<u>Electrochemical</u> 5 years for CO only 2 years for other gases <u>Pellistor</u> 3 years
ENCLOSURE:	NEMA 3 Polystyrene Grey Surface Mounting
DIMENSIONS:	5.2" x 5.2" x 3" (130mm x 130mm x 75mm)
APPROVALS:	CAN/CSA C22.2 No. 61010-1:2004 ANSI/UL 61010-1:2004

Ordering Information

MODEL NUMBER	GASES DETECTED
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

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

IN THE U.S.A. ACME ENGINEERING PROD. INC.

Trimex Ind. Bldg., PMB #10
2330 State Route 11
Mooers, N.Y. 12958

Tel. : (518) 236-5659
Fax : (518) 236-6941

E-mail : info@acmeprod.com • www.acmeprod.com

IN CANADA ACME ENGINEERING PROD. INC.

5706 Royalmount Ave.,
Montreal, Quebec
H4P 1K5

Tel. : (514) 342-5656
Fax : (514) 342-3131



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