

**Scalable system using up to 4 Wireless Sensor-Transmitters communicating with a central Control Panel.**

## Features

- FCC/IC/ETSI/CE approved RF modules for up to 4 remote sensor-transmitters.
- Minimal installation cost - virtually no field wiring required.
- Continuous 2 year Battery-powered sensor operation with self diagnostics. Sensors are also available for 24V AC operation.
- Relay outputs or zoned 4-20mA outputs from the Control Panel.
- “Plug-and-play”.

## Applications

- Energy savings through the intermittent operation of ventilation equipment in enclosed facilities.
- Suitable for garages, tunnels, warehouses and other enclosed commercial locations where a hazardous build-up of gases may occur.
- Ideal for retrofit of existing buildings to improve safety and conserve energy.
- Designed for multiple stage projects.



The ACME CEW4 series is a microprocessor-based up to 4 channels multigas wireless detection and control system that can be used with a wide variety of ACME toxic, combustible, refrigerant & oxygen gas sensors. The sensors can be grouped in any combination. The communication between the Control Panel and the remote Sensor-Transmitters is accomplished through a 900 MHz or 2.4 GHz wireless network.

The LCD display provides a continuous digital read-out of gas concentrations for each sensor-transmitter, as well as levels status (L, H & A), the battery voltage and the time elapsed in minutes since the last transmission.

In its most basic configuration, the CEW4 Control Panel supports up to 4

channels where each channel is treated independently controlling a fan zone.

In this configuration, all channels have their own SPDT relay output at Low gas levels and/or a 4-20mA signals proportional to the gas readings. In a more practical application, the channels are divided into groups that collectively serve various fan zones. In this latter configuration each group (zone) has a set of relay output contacts at Low gas levels and/or 4-20mA signal proportional to the demand from that group.

High & Alarm gas level SPDT relay outputs are always common to all channels.

The CEW4 series Sensor-Transmitters are available with different sensor technologies depending on the type of

gas detected. Electrochemical cell type sensors are common for most of the toxic gases, non-dispersive infrared (NDIR) for CO<sub>2</sub> & Refrigerant Gases and Combustible Gas sensors are catalytic bead (pellistor) type.

The Sensor-Transmitters' batteries are designed for a 2-year life. The Sensor-Transmitters are also available with 24V AC input instead of batteries.

Acme also offers a version of the CEW where a maximum of 32 channels is supported. Output configurations are more versatile and a removable user keypad is available to customize the system parameters.

## Sensor-Transmitter specifications

**GASES DETECTED:** CO, Diesel Fumes (NO<sub>2</sub>), CO<sub>2</sub>, O<sub>2</sub>, H<sub>2</sub>, H<sub>2</sub>S, Ammonia, etc.

Methane, Propane & Butane  
Family of refrigerant gases

**SENSOR TECHNOLOGY:** Electrochemical, NDIR or Catalytic Bead

**SENSING METHOD:** Diffusion type

**DETECTION RANGE:** Varies by gas

**ACCURACY:** +/- 5ppm of reading

**POWER REQUIREMENTS:** Battery (12V DC)  
Also available in 24V AC

**BATTERY LIFE:** 2 Years

**COMMUNICATION:** 900 MHz Wireless network  
Also available in 2.4 GHz

**COMMUNICATION RANGE:** 1500-2000 ft., (indoors)

**OPERATING TEMPERATURE:** 32°F to 104°F (0°C to +40°C)\*

**HUMIDITY RANGE:** 0-95% RH Non-condensing

**EXPECTED LIFETIME:** Electrochemical CO: 7 years;  
Electrochemical other: 2 Years;  
3 Years for Catalytic Bead;  
10 Years for NDIR;

**ENCLOSURE:** NEMA 3

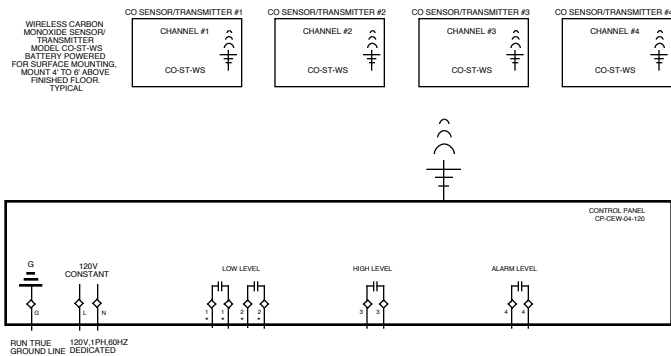
**CALIBRATION VERIFICATION:** Yearly

\*Extended temperature range available.

## Other Acme wireless products

CEW Wireless MultiSet Multigas Detection & Control System.  
Same features as the CEW4 plus more.

## Typical Wiring Diagram



## Ordering Information

MODEL NUMBER	GAS DETECTED
CP-CEW4-N-X*	GASOLINE EXHAUST (CO)
DG-NO-CEW4-N-X*	DIESEL FUMES (NO <sub>2</sub> )
CO <sub>2</sub> -CEW4-N-X*	CARBON DIOXIDE (CO <sub>2</sub> )
MDG-NO-CEW4-N-X*	GASOLINE/DIESEL (CO/NO <sub>2</sub> )
O <sub>2</sub> -CEW4-N-X*	OXYGEN (O <sub>2</sub> )
H <sub>2</sub> -CEW4-N-X*	HYDROGEN (H <sub>2</sub> )
H <sub>2</sub> S-CEW4-N-X*	HYDROGEN SULFIDE (H <sub>2</sub> S)
NH <sub>3</sub> -CEW4-N-X*	AMMONIA (NH <sub>3</sub> )

These sensors require local power source of 24V AC due to their higher power consumption.

40-CH <sub>4</sub> -CEW4-N-X*	METHANE (CH <sub>4</sub> )
40-C <sub>3</sub> H <sub>8</sub> -CEW4-N-X*	PROPANE (C <sub>3</sub> H <sub>8</sub> )
40-C <sub>4</sub> H <sub>10</sub> -CEW4-N-X*	BUTANE (C <sub>4</sub> H <sub>10</sub> )
REF**-CEW4-N-X*	Refrigerant Gases

N = Number of sensors for each gas.

Add a "-BB" suffix at the end to indicate a battery back-up.

\*\* REF = Refrigerant Gas desired.

For combinations of gases or other gases available, please contact the factory for more information.

## Power Supply Options for Control Panel

*X	LINE VOLTAGE
24	24 V 50/60 HZ
120	120V 50/60 HZ
240	240V 50/60 HZ
277	277V 50/60 HZ

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