

### **WIRELESS SENSORS/TRANSMITTERS**

ACME-WS Series December 2011

Carbon Monoxide (CO), Nitrogen Dioxide (NO<sub>2</sub>), Oxygen (O<sub>2</sub>), Ammonia (NH<sub>3</sub>), Hydrogen (H<sub>2</sub>), Hydrogen Sulfide (H<sub>2</sub>S), Combustibles

#### Features

- FCC/IC/ETSI/CE approved RF modules
- Easy installation, virtually eliminsting cost of installation
- Battery operated with 2-year battry life, or powered from a local 24VAC source
- NEMA 3 robust enclosure
- Remote sensor/transceiver on a wireless communication network compatible with Acme's new CEW-Series centralized wireless multipoint/multi-gas detection and control panel

### **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.



he Acme WS Series toxic or combustible gas sensor/transmitter measures the concentration of the target gas in an enclosed area and transmits this value to the control panel via a 900MHz or 2.4 GHz wireless medium.

The WS Sensor / Transmitter includes a high gain antenna concealed inside the enclosure as well as a built-in battery pack that can be easily accessed and replaced (battery-operated verson).

Optionally the WS can also be powered from a 24VAC source. This version(WS-24) may have

on-board relays to operate the ventilation equipment directly while transmitting their readings to the control panel for monitoring purpose only.

The WS employs a range of diffusion-type electrochemical and/ or catalytic bead sensors capable of detecting a broad range of toxic and combustible gases. It provides a quick and reliable detection method of these gases with long term accuracy and trouble free operation.

Designed to act as fixed in-situ safety monitors, the WS transmitters automatically operate the mechanical ventilation system of a facility upon detection of hazardous gases, thereby protecting occupants, personnel and gas-sensitive goods and products.

With the increased use of gas detection in maintenance and industrial facilities, the WS allows installers and users to meet code requirements economically using commercial-grade gas detection equipment.

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

### Standard unit specifications

**GASES DETECTED:** CO, NO<sub>2</sub>, O<sub>2</sub>, NH<sub>3</sub>, H<sub>2</sub>, H<sub>2</sub>S

Combustible gases(24VAC Power

Module only)

**SENSOR TECHNOLOGY:** 3-electrode catalytic bead

electrochemical cell

**SENSING METHOD:** Diffusion

**POWER REQUIREMENT:** Self-powered from a built-in 12V

battery pack(8x1.5V) or hardware

to a constant 24V local power source

**OPERATING TEMP:** -4°F to 104°F (-20°C to +40°C)\*

**HUMIDITY RANGE:** 15-95% RH

**ACCURACY:** +/- 2% of calibrated value

**REPEATABILITY:** 2% of signal

**EXPECTED SENSOR LIFE:** 7 years for CO only;

2 years for other gases.

**BATTERY LIFETIME:** 2 years

**ENCLOSURE:** NEMA 3

Polystyrene Surface mounting

**DIMENSIONS:** 182mm X 180mm X 111mm

 $(7.2"\:X\:7.1"\:X\:4.4"\:)$ 

### Ordering Information

MODEL NUMBER	GAS DETECTED	RANGE
NH3-WS-X***	Ammonia	0-100PPM
CO-WS-X***	Carbon Monoxide	0-200PPM
H2-WS-X***	Hydrogen	0-1000PPM
H2S-WS-X***	Hydrogen Sulfide	0-200PPM
NO2-WS-X***	Nitrogen Dioxide	0-10PPM
O2-WS-X***	Oxygen	0-25%
COMB-WS-24	Comb. Gas	0-40%L.E.L

### Output Signal and other Options

\*\*\*X=24 24VAC POWER

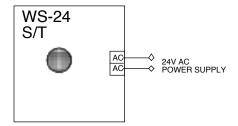
\*\*\*X= BATTERY POWER

24 SUFFIX SHOULD BE ADDED IF 24VAC MODEL IS DE-

SIRED IN LIEU OF BATTERY

\* Extended temperature ranges available.

# Typical Wiring Diagram for 24V MODULE ONLY



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