



**Continuously monitor and control  
toxic gases, combustible gases and  
oxygen hazards**

# Vulcain 301C digital gas detection controller



## User Friendly

- Zero maintenance
- Automatic quick self-test and warm-up
- Continuous alphanumeric display

## Inexpensive and Reliable

- Low installation costs
- Allows for up to 126 zoning groups which can save energy and extend fan and relay life
- Manages up to 768 events with programmable latching alarms

## Flexible Operation

- Modbus compatible; with BACnet/IP available
- Interchangeable transmitters able to detect different gases
- Expands to handle up to 96 transmitters or relay modules and up to 50 Vulcain 301W wireless sensors
- Programmable time delays
- Integrated time clock enables scheduling of system operations

## Safety Measures

- Full array of visual indicators and integrated 65dBA alarm levels
- Fully programmable relays (can be set as fail-safe or not)

## Beneficial Options

- Available in a heavy duty industrial housing
- Datalogging option

**The Vulcain 301C continuously monitors and controls toxic gases, combustible gases, and oxygen hazards. Designed for installation and operational simplicity, the Vulcain 301C reduces the cost of installation and ownership.**

Using an addressable RS-485 Modbus communication protocol, the Vulcain 301C uses daisy chain wiring requiring only 2 pairs of wires to connect up to 96 transmitters on the 3 input channels. This simplifies installation, in turn lowering costs. The 301C's zoning and averaging abilities significantly reduce operational and maintenance costs.

## Zoning / Averaging

The Vulcain 301C controller offers unique zoning capabilities which permit the averaging and comparison of multiple sensor readings. Zoning can reduce operational costs by ensuring that localized brief fluctuations registered at a single transmitter do not activate relays. For example, a car idling in a parking structure may locally increase a reading at a nearby transmitter. Rather than activating a fan as a result of the temporary localized fluctuation, zoning can be used to limit relay activation until the average reading for a zone exceeds a set-point. This can reduce run time of fans, yielding savings in both energy usage and wear and tear. The Vulcain 301C has the capacity to manage input from three Modbus channels for up to 96 transmitters and up to 50 wireless transmitters which can be associated with up to 126 zones. Transmitters can belong to an unlimited number of zones, providing maximum operational and control flexibility.





# Technical summary



## General Specifications

<b>Use</b>	Modbus controller for centralized gas detection monitoring with real-time gas reading, selective alarm activation and low cost of installation.
<b>Size</b>	28 x 20.3 x 7 cm (11.02 x 7.99 x 2.76 in.)
<b>Weight</b>	1.1 kg (2.4 lb.)
<b>Enclosure</b>	NEMA 4X Polycarbonate – ABS
<b>Power Requirement</b>	17-27 Vac, 24-38 Vdc, 500 mA
<b>Network Capacity</b>	Three Modbus channels for up to 96 transmitters, one wireless channel for up to 50 301W wireless transmitters and an optional BACnet/IP output
<b>Communication Line Lengths</b>	Up to 609 m (2000 ft.) per channel T-Tap: 20 m (65 ft.), maximum per T-Tap 40 m (130 ft.), maximum for all T-Tap combined
<b>Relay Output Rating</b>	5 A, 30 Vdc or 250 Vac (resistive load)
<b>Alarm Levels</b>	3 fully programmable alarm levels
<b>Time Delays</b>	0, 30 sec., 45 sec., 1-99 minutes before and after alarm
<b>Outputs</b>	4 DPDT relays (alarms and/or fault); 65dBA buzzer
<b>Display</b>	Large 122 x 32 dot matrix display
<b>Operating Humidity Range</b>	0-95% RH, non-condensing
<b>Operating Temperature Range</b>	-20 to 50°C (-4 to 122°F)

## Ratings and Certifications

<b>Certified to</b>	CAN/CSA C22.2 No 61010-1   116662
<b>Conforms to</b>	ANSI/UL 61010-1 IEC 61010-1 Including Amendments A1:1992 + A2:1995 and National Deviations (Canada, US)



As world leaders in gas detection solutions, Honeywell Analytics' Vulcain range of gas detection systems has been designed to provide efficient, practical and cost-effective equipment to protect people from a variety of forms of hazardous gases and to efficiently monitor and control indoor air quality. The equipment is also extremely simple to install and easy to operate and maintain.

## The Vulcain range of fixed gas detection and air monitors



### Vulcain Sensors

From refrigerants to toxic and combustible gases, Honeywell Analytic's Vulcain line has a sensor designed for any industrial or commercial application. With award winning sensor technology, this line of sensors is the answer to any fixed HVAC, IAQ or gas detection concerns.

### Find out more

For more information on Honeywell Analytic's Vulcain line of products, visit [www.honeywellanalytics.com](http://www.honeywellanalytics.com) or contact us at 800 563 2967

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### Vulcain Controllers

Designed for industrial or commercial use, the Vulcain 301C monitors and controls toxic gases, combustible gases and oxygen hazards. With the same simple installation and operation and flexibility as the Vulcain 301C, the Vulcain 301EM is specifically designed to fulfill the requirements of a mechanical room.



Vulcain 301M

### Stand-Alone Dual Gas Monitor

For applications where gas detection is only needed at one or two points, the Vulcain 301M offers a simple solution. While continually monitoring for CO, a remote sensor can also be integrated to detect CO, NO<sub>2</sub>, propane, hydrogen or methane with a remote sensor that can be placed up to 200' away.



Vulcain 90DM<sub>4</sub>

### Commercial CO<sub>2</sub> Detection

Using proven infrared dual sensing technology to detect carbon dioxide (CO<sub>2</sub>) the Vulcain 90DM<sub>4</sub> can be either wall or duct mounted to monitor CO<sub>2</sub> levels in your commercial environment.

# Honeywell