Honeywell

Create a daisy-chain network with easy installation

Vulcain 420I, 301R, 301AP and 301ADI

420I Converter
- Easy installation through daisy chain hook-up (RS-485)
- Provides dedicated 4-20mA outputs for up to 8 transmitters or either Min/Max/Avg
- Fully compatible with the 201T and 301D2 series as well as the SQN8X
- Communicates with transmitters at distances of up to 2000 feet

301R Relay Module
- Fully compatible with the 301C Controller
- Offers 8 DPDT relays
- Easy daisy chain installation (RS-485)
- LED visual indication of status next to each relay

301AP Annunciator Panel
- Three relay outputs for added functionality
- Audible alarm
- Easy to read visual status indicators and LCD display
- Robust RS-485 Modbus communication interface

301ADI Analog/Digital Input Converter
- Up to 8 digital and 16 4-20mA inputs can be converted to a Modbus output
- Fan status is communicated to 301C via an electrical current sensor

The Vulcain 420I Converter, 301R, 301AP Annunciator Panel and 301ADI Analog/Digital Input Converter work with other Vulcain products to maximize the functionality of your gas detection system.

420I Converter

The 420I communicates digitally with transmitters (201T, 301D2, SQN8X, etc.), within a true daisy chain network, to convert the transmitters digital signals to analog outputs. This allows each transmitter to provide a 4-20mA signal to a BMS from one central location. The unit can accommodate up to 8 transmitters installed at distances of up to 2000 feet from the unit.

To avoid expensive DDC hook-ups and BMS software upgrades the unit even comes with internal logic that will provide either minimum/maximum/average reading for up to 16 transmitters.

301R Relay Module

The 301R acts as an output to the 301C. The Relay Module provides 8 relays (DPDT 5A, 30 VDC or 250 VAC resistive load) for the indirect activation of fans, louvers, etc at programmable alarm levels. Since the relay module is an output to the controller it can be located at any point within the gas detection network.

301AP Annunciator Panel

The 301AP is Vulcain's latest generation of remote annunciator panels incorporating all of the previously existing functionalities, such as easy to read visual indicators, multiple alarm level displays and fault alarms. With its 301AP, however, Vulcain is now offering end-users fully automatic recognition of sensor readings from the 301C controller, with absolutely no user programming required.

301ADI Analog / Digital Input Converter

The 301ADI Analog / Digital Input Converter allows existing 4-20mA devices to be brought onto a Modbus communication daisy-chain. This allows established gas detection systems to take advantage of the functionality provided by the 301C controller, without requiring expensive upgrades or product replacements.

Vulcain 301R

Vulcain 301AP

Vulcain 301ADI

Technical summary

420I Specifications

Use	Provides centralized 4-20mA outputs for each daisy-chained transmitter, avoiding costly wire homeruns
Power Requirements	17-27 Vac, 24-38 Vdc, 500mA
Number of Inputs	One RS-485
Number of Outputs	8 dedicated 4-20 mA outputs min/max average
Humidity Range	0-95% RH, non condensing
Operating Temperature	0°C to 40°C (32°F to 104°F)
Dimensions	20.3 x 24.4 x 5.7 cm (8.0 x 9.5 x 2.5 in.)
Weight	1.58 kg (3.5 lbs)
Maximum Distance between Controller and Converter	Up to 610 m (2000 ft.)

301R Specifications

Use	Provides extra addressable relay outputs to be connected anywhere on the daisy chain network
Power Requirements	17-27 Vac, 24-38 Vdc
Number of Outputs	8 DPDT relays
Rating	5 A, 30 Vdc or 250 Vac (resistive load)
Visual Indicator	1 power LED, Tx, and each relay
Maximum Distance between controller and converter	up to 610 m (2000 ft.)
Humidity Range	0-95% RH, non condensing
Operating Temperature	32°F to 104°F (0°C to 40°C)
Dimensions	20.3 x 24.4 x 5.7 cm (8.0 x 9.5 x 2.5 in.)
Weight	1.09 kg (2.4 lbs)

301AP Specifications

Use	Provides local display of the entire gas detection network
Power Requirements	17-27 Vac, 24-38 Vdc
Number of Outputs	3 DPDT relays
Rating	5 A, 30 Vdc or 250 Vac (resistive load)
Humidity Range	0-95% RH, non condensing
Operating Temperature	0°C to 40°C / 32°F to 104°F
Audible Alarm	65 dB at 0.9 m (3 ft.)
Dimensions	20.3 x 24.4 x 5.7 cm (8.0 x 9.5 x 2.5 in.)
Weight	1.09 kg (2.4 lbs)

420I, 301R and 301AP Ratings and Certifications

Conforms to	UL STD. 1244
Certified to	CAN/CSA C22.2 No 205
	ETL 116662

Vulcain 420I

301ADI Analog / Digital Input Converter Specifications

Use	Allows 4-20mA devices to be integrated into the daisy chain network and be read by the 301C controller	
Power Requirements	17-25 VAC, 18-36 VDC, 440mA @ 24 VDC 120Vac, 3.15A (-AC option) 120Vac, 6.3A (-AC-2PS option)	
Size	28 x 20.3 x 7 cm (11.02 x 7.99 x 2.76 in.)	
Weight	1.1 kg (2.4 lb.)	
Enclosure	NEMA 4X Polycarbonate – ABS	
Network Communication (Input/Output)	Inputs	8 digital - 16 4-20mA
	Output	Modbus communication protocol
Operating Humidity Range	0-95% RH, non-condensing	
Operating Temperature	-20 to 50°C (-4 to 122°F)	

301ADI Ratings and Certifications

Conforms to	ANSI/UL No. 61010-1
Certified to	CAN/CSA C22.2 No. 61010-1

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 301RLC | GasPoint II | Vulcain 201T | Vulcain 301W | Vulcain 301C | Vulcain 301EM |

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.

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 fulfil the requirements of a mechanical room.

Find out more

For more information on Honeywell Analytic's Vulcain line of products, visit www.honeywellanalytics.com or contact us at 800 563 2967

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_2, propane, hydrogen or methane with a remote sensor that can be place up to 200' away.

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Vulcain 90DM$_4$

Commercial CO_2 Detection
Using proven infrared dual sensing technology to detect carbon dioxide (CO_2) the Vulcain 90DM$_4$ can be either wall or duct mounted to monitor CO_2 levels in you commercial environment.

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