HA71 Digital Gas Controller

Honeywell

16 Channel Master Display and Monitor/Controller

The Honeywell Analytics HA71 16 Channel Digital Gas Controller is designed to provide simultaneous display and alarm functions for up to 16 input variables.

Enhanced Technology

- Accepts up to 16 inputs from numerous sensor types

- Inputs may be analog or Modbus allowing data retrieval via RS-485 – reducing wiring costs at installation

- 8 channel display mode and option boards allow economical configuration of systems requiring only 8 channels or less

- Cal Mode offers pushbutton zero/span calibration for direct sensor interface applications

- Authorization Mode locks critical configuration variables

- Graphic LCD displays monitored data as trends, bar graphs and engineering data

- Standard A SPDT common alarm relays for HORN, HIGH, WARN & FAULT

- Dual Modbus RS-485 serial ports and optional phone modem

- 3 adjustable alarm levels per channel

- Relay Acknowledge feature silences external audible devices during existing alarm conditions

- HMI Software monitors up to ten HA71 controllers simultaneously

Beneficial Options

- Alarm event printer interface, direct sensor inputs and discrete alarm relays supported via a 12C expansion bus

- Magnetic keypad available for non-intrusive operation in potentially hazardous locations

- NEMA 4X, Explosion-Proof, surface mount, panel and rack mount packaging

Flexible and Configurable—Ideal for Demanding Industrial Applications

The HA71 delivers added value through its multiple capabilities—with simultaneous display and alarm functions for up to 16 input variables. A graphic LCD displays monitored data as trends, bar graphs and engineering units. Three adjustable alarm levels are provided per channel. Relay outputs allow control of beacons, horns and other alarm events. A horn relay may be set for steady or pulsing operation.

Analog inputs may be accepted and conditioned via sensor specific analog input cards. Alternatively, the standard Modbus Master port allows input data to be retrieved from Modbus slave devices including the many Modbus compatible Honeywell Analytics sensor transmitter products.

The HA71 is easy to configure and user friendly. Measurement ranges in engineering units, adjustable alarm set-points, dual serial interfaces and many other features combine to allow the HA71 to satisfy the needs of many demanding applications. It is widely used for centralizing the display and alarm processing functions in critical multipoint monitoring applications. These include monitoring of ambient gas detection, rotating machinery, tank levels, flow, temperature and others. Nonvolatile memory retains all configuration data indefinitely.

A RS-485 Modbus slave port allows up to 128 HA71's to be multidropped onto a single data highway for interrogation by another Modbus master. HA71's may also be cascaded by connecting one unit's master port to another's slave port.

HA71 options such as discrete alarm relays per channel, 4-20mA I/O, direct sensor input conditioning and others are added by connecting appropriate 8 channel boards (2 required for more than 8 channels) to the economical I2C expansion bus. Familiar "telephone style" cables and connectors interface to this bus. This method allows versatile system configuration of options satisfying the most unusual user applications.
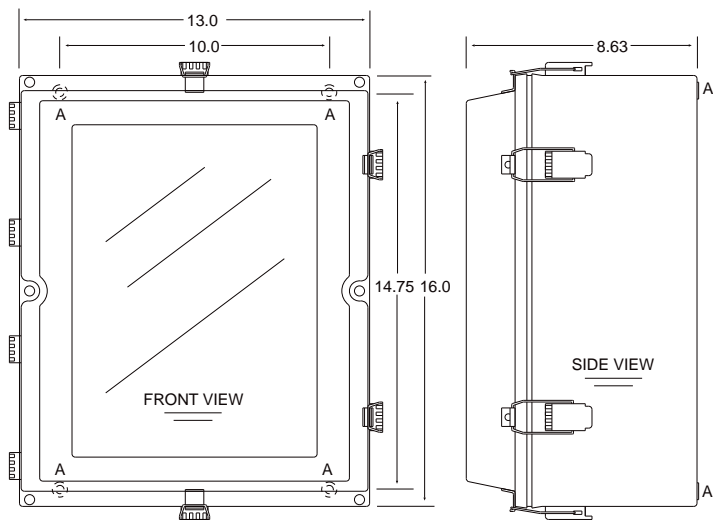
The HA-71-HMI (Human Machine Interface) software included with the HA71 has the ability to monitor up to ten HA71 controllers simultaneously, displaying up to 160 points of detection. It provides complete data display and storage, with real-time channel data available in 24-hour or 15-minute trends, including historical alarm and maintenance data.

General Specifications
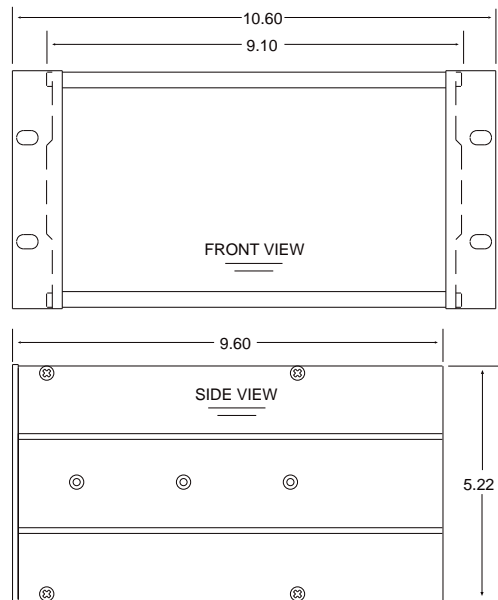
Use	Wall or rack/panel mountable digital gas controller for industrial or commercial use
Size	15 1/8" (H) x 13 1/7" (L) x 9 1/16" (D)
Weight	17 lbs. (wallmount enclosure); 7 lbs. (rackmount enclosure)
Power Requirement	10-30VDC (24VDC nominal) 12 watts max
Analog Inputs (optional)	12 bit 4-20mA into 100 ohms input impedance; includes +power supply terminals for each channel for routing power to 2 or 3 wire transmitters
Serial Ports	Master & Slave RS-485 half or full duplex ports equipped with Tx/Rx LED's. Protocol = Modbus RTU
Common Alarm Relays	5 amp 30VDC or 250VAC resistive Form C
Discrete Alarm Relays (optional)	5 amp 30VDC or 250VAC resistive Form C
Analog Outputs (optional)	10 bit 4-20mA output. Max. load 800 ohms with nominal 24VDC power supply
Display	128 x 240 pixel graphic LCD with backlight displays bar graphs, trends and engineering units; 52 discrete LED's indicate alarm status for 3 alarms per 16 channels and common relays
Operating Temperature Range	-13°F to 140°F (-25°C to 60°C)
Housing Options	NEMA 4X fiberglass wall mount (shown below, left); ½ length 19 inch rack/panel mount (shown below, right); NEMA 7 explosion-proof wallmount (see manual)
Approvals	CSA C22.2 No. 1010.1 & 152 for combustibles & ISA S82.02; UL 1604/C22.2 No. 213 Div 2 Groups A,B,C,D); EN55011 & EN61000 CE

Ratings and Certifications

Certified to	CAN/CSA C22.2 No. 61010-1 (ETL)us 116662
Conforms to	ANSI/UL 61010-1

NEMA 4x Wall Mount

13.0
10.0
8.63
14.75 16.0
A
A
A
A
A
A
FRONT VIEW
SIDE VIEW

Note: 4 'A' mounting holes are .31 dia.

10.60
9.10
FRONT VIEW
9.60
SIDE VIEW
5.22

Note: Panel cut-out = 5.25 X 9.20

RACK / PANEL MOUNT
(19" RACK SPREADER PLATES &
PANEL MOUNT BEZEL NOT SHOWN)

Honeywell Analytics Lines of Business

Commercial

Vulcain-brand gas detection from stand-alone units to fully engineered, multi-point systems, all offering cost-effective regulatory compliance

» Applications: parking structures, chillers, mechanical rooms, office towers, commercial buildings, shopping centers, swimming pools, golf courses, schools and universities, laboratories

Industrial

Renowned Sieger and Manning gas detection systems with advanced electrochemical, infrared and open path sensing technologies

» Applications: oil and gas, cold storage, water/wastewater treatment, chemicals, engine rooms, plastics and fibers, agriculture, printing and light industrial

Portables

Single or multi-gas Lumidor and other premium detectors with compact, lightweight designs ranging from simple alarm only units to advanced, fully configurable and serviceable instruments

» Applications: underground utility and electricity ducts, boiler rooms, post-fire sites, sewers, industrial plants, industrial hygiene, first responder teams, remote fleets

High Tech/Government

A complete portfolio of gas and chemical detection instrumentation including infrared spectroscopy (MST) with no cross interference to Chemcassette paper-based solutions (MDA Scientific) offering detection down to parts per billion

» Applications: semiconductor manufacturing and nanotechnology, aerospace propulsion and safety, specialty chemicals industry

Technical Services

24/7 global network includes post-sales service and Systems Integration teams

» Emergency call out, service contracts, on/off-site repair, training and commissioning
» Complete range of spares, consumables and accessories

Find out more

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