



Series GA-170 Gas Alarm

The Series GA-170 Gas Alarm system provides a reliable and simple solution for gas detection applications. The GA-170 Gas Alarm incorporates a simple modular design that can integrate a variety of gas sensor types with up to four sensors per alarm module. The digital alarm module is controlled through a user-friendly interface consisting of push-buttons and a two line, sixteen character, alpha-numeric, backlit LCD Display. The digital alarm module is housed in a NEMA-4X enclosure, and includes visual and audible alarms. The electrochemical gas sensor(s) can be located up to 1000 feet (300 m) away from the alarm module. The alarm module includes common contact relays and adjustable alarm contact relays for each sensor. All sensor contact relays are user adjustable and High Alarms can be set as latching or non-latching and failsafe or non-failsafe. Battery Back-Up is available as an option.



Configuration

Sensor configuration mode is entered using a password and then adjusted using push buttons. Latching and Failsafe alarm options are also password adjustable.

Operation

Simple menu driven, push-button controlled programming is performed on the alarm module. Alarm outputs are provided to activate external devices. A front panel push button function is used to acknowledge/deactivate latching alarms. A contact input is provided for remote acknowledge of latching alarms. Front Panel display and LED's provide continuous and clear operation status.

Maintenance

Gas sensors can be replaced and/or recalibrated through the push-button menu. Sensor types can be easily changed.

Calibration

Contact Hydro Instruments for calibration gas and sensor testing devices.

Highlights:

- Up to 4 Sensors
- User-friendly key pad interface for easy calibration and operation
- Available for Cl₂, SO₂, NH₃, H₂S, O₃, ClO₂, H₂, O₂, NO, NO₂, HCl
- Includes six alarm relays
- Backlit Liquid Crystal Display (LCD) for easy reading. 2 line, 16 spaces
- Built-In 90 dB audible Alarm and Danger/Alarm LEDs
- Optional Battery Back-Up
- RS232 Output Option
- 4-20 mA Output Option
- Remote Acknowledge
- Password Protection



Digital Alarm Module:

NEMA 4X Enclosure	8" x 6" x 4"
Temperature Range	0°-55°C / 32°-131°F
Total Weight	7 lbs
Weight with Battery	9 lbs
Relays:	
Common AC Power Loss	5A SPDT
Common Sensor Failure	5A SPDT
Each Channel	
Low Alarm (Danger)	5A SPDT
High Alarm (Alarm)	5A DPDT
Audible Alarm	90dB
Power Requirement	120 V/240 V, 50-60 Hz
Power Consumption	20 W max.
Battery Back-Up (optional)	12 hours, 2.9 A•Hr, 12 VDC gel cell
External Acknowledge	Input Contact
Signal Output (optional)	RS232, 4-20 mA
Remote Acknowledge	Input Contact
Warranty	1 year limited

Note: Single and Dual sensor units will have both Low Alarm and High Alarm relays for each sensor. Three and Four sensor units will only have one High Alarm relay per sensor.

Standard Gas Sensors:

Ammonia (NH ₃):	0-100 PPM
Chlorine (Cl ₂):	0-10 PPM
Chlorine Dioxide (ClO ₂):	0-10 PPM *
Ozone (O ₃):	0-10 PPM *
Sulfur Dioxide (SO ₂):	0-30 PPM
Hydrogen (H ₂):	0-200 PPM
Hydrogen Sulfide (H ₂ S):	0-100 PPM
Nitric Oxide (NO):	0-100 PPM *
Nitrogen Dioxide (NO ₂):	0-100 PPM
Oxygen (O ₂):	0-25%
Hydrogen Chloride (HCl):	0-10 PPM

*Note: Other ranges are available.
Consult the factory.*

Sensor:

Cable Type:	22 AWG shielded
Cable Length:	25 ft. std. (longer available)
Sensor Type:	Electrochemical

Includes shipping cap and calibration ports.

Series GA-170 Gas Alarm Ordering Information

Model GA-170 - A - B - C - D - E - F - G - H

A. Sensor 1 Gas Type:

- 1 - Chlorine (0-10 PPM)
- 2 - Sulfur Dioxide (0-30 PPM)
- 3 - Ammonia (0-100 PPM)
- 4 - Other (consult factory)

B. Sensor 2 Gas Type:

- 1 - Chlorine (0-10 PPM)
- 2 - Sulfur Dioxide (0-30 PPM)
- 3 - Ammonia (0-100 PPM)
- 4 - Other (consult factory)
- 5 - None

C. Sensor 3 Gas Type:

- 1 - Chlorine (0-10 PPM)
- 2 - Sulfur Dioxide (0-30 PPM)
- 3 - Ammonia (0-100 PPM)
- 4 - Other (consult factory)
- 5 - None

D. Sensor 4 Gas Type:

- 1 - Chlorine (0-10 PPM)
- 2 - Sulfur Dioxide (0-30 PPM)
- 3 - Ammonia (0-100 PPM)
- 4 - Other (consult factory)
- 5 - None

E. Power Requirements:

- 1 - 120 VAC, 50-60 Hz
- 2 - 240 VAC, 50-60 Hz

F. Battery Back-Up:

- 1 - Not Included
- 2 - Included

G. Sensor Cable Length:

- 1 - 25 ft. (8 m) standard per sensor
- 2 - Additional length

H. Output:

- 1 - None
- 2 - 4-20 mA

Note: Add an "A" after the number for each gas type to indicate a side mounted sensor enclosure.

Examples:

GA-170-2-5-5-5-1-1-1-1



----- Danger Relay
----- Alarm Relay

GA-170-1-2-3-5-1-1-1-2



----- 4-20mA Output

----- Danger Relays
----- Alarm Relays

hydro INSTRUMENTS

600 Emlen Way, Telford, PA 18969

Telephone: (215) 799-0980 • Fax: (215) 799-0984

Toll Free in the U.S.: 1 (888) 38-HYDRO

www.hydroinstruments.com • sales@hydroinstruments.com



BULLETIN GA-170 Rev. 3/13