



Monitors

## Sixteen Channel Alarm Controller GDA-1600



Bacharach's all new GDA-1600 Controller offers premier performance and functionality in a standalone controller. From one to sixteen channels, the GDA-1600 is designed to provide operators the most detailed, real time information about gas concentrations throughout the facility. Information is relayed to the operator through a large LCD display that shows real time gas concentrations, sensor location, sensor type, as well as historical data trends. Each channel has three independent, user-programmable alarm threshold values that allow for flexibility in alarm notification. When alarms do occur, operators are notified via LED alarm indicators on the front panel, clearly showing which channel is in alarm and the alarm state. Internal relays can also be utilized to control fans, horns, or beacons when alarm thresholds are exceeded. When responding to alarms, information is critical. The GDA-1600 provides more details than any other controller on the market today.

### Centralize Monitor and Alarm Functions

The GDA-1600 is equipped with a fault and three alarm levels per channel with features such as ON/OFF delays, latching relays and alarm acknowledge. A dedicated horn driver circuit for a local audible alarm is also standard. Two standard, 5-amp alarm relays are configurable via the "alarm voting" menu to make relays trip based upon various alarm combinations. If more relays are required optional relay boards can be added.

Real-Time clock and calendar are standard on the GDA-1600. Options such as 4-20 mA outputs and discrete relays are easily added. RS-485 (Modbus<sup>®</sup> RTU) or Ethernet (Modbus<sup>®</sup> TCP) ports are also available for flexibility in sending data to PC's, PLC's, DCS's, or other controllers. The GDA-1600 has complete calibration functionality for each input channel. This unique feature allows maintenance and service personnel to use the controller to calibrate the Bacharach GDX-150 simple sensor.



## GDA-1600 Features & Benefits:

- Accepts up to 16 inputs, outputs and relays
- Graphic LCD for real time monitoring and 30-minute/24 hour data trends
- Complete calibration functionality for each input channel
- Three independent alarm levels per channel
- Non-volatile memory retains all configuration data

## GDA-1600 Specifications

|  |   |
|--|---|
| <b>Analog Inputs (Optional):</b>         | 12 Bit 4-20 mA into 100 ohms Input Impedance; Includes + Power Supply Terminals for Each Channel for Routing Power to 2 or 3 Wire Transmitters, Single Sensor, 30 Foot Diameter                                   |
| <b>Dimensions:</b>                       | 13.0" x 16.0" x 8.63" (33.02 cm x 40.64 cm x 21.9202 cm)  |
| <b>Housing Options:</b>                  | NEMA 4X Fiberglass Wall Mount<br>1/2 Length 19 Inch Rack /Panel Mount<br>NEMA 7 Explosion-Proof Wall Mount (Consult Factory)  |
| <b>User Interface:</b>                   | 128 x 240 Pixel Graphic LCD with Backlight Displays<br>Bar Graphs, Trends and Engineering Units<br>52 Discrete LED's Indicate Alarm Status for 3 Alarms per 16 Channels and Common Relays<br>24 Hour Datatrending |
| <b>Common Alarm Relays:</b>              | 5-amp 30 VDC or 250 VAC Resistive Form C  |
| <b>Discrete Alarm Relays (Optional):</b> | 5-amp 30 VDC or 250 VAC resistive Form C (8 Per Card)   |
| <b>Serial Ports:</b>                     | Master & Slave RS-485 Half or Full Duplex Ports Equipped with Tx / Rx LED's. Protocol = Modbus® RTU   |
| <b>Analog Outputs (Optional):</b>        | 10 bit 4-20 mA Output. Max Load 800 ohms with Nominal 24 VDC Power Supply   |
| <b>Ambient Temperature Range:</b>        | 13° to 140° F (-25° to +60° C)  |
| <b>Power:</b>                            | 10 - 30 VDC (24 VDC Nominal) 12 Watts Max   |
| <b>Approvals:</b>                        | 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 Mark  |

## GDA-1600 Ordering Information

|                  |  |
|------------------|--|
| <b>5700-1600</b> | GDA-1600 Base Controller, w/Display, NEMA 4X Enclosure                                 |
| <b>5700-1601</b> | GDA-1600 Base Controller, w/Display 19 Inch Rack/Panel Mount (with Bezel and Hardware) |

*All controllers are ordered based on purchasers required options. Each option is a separate part number and can be added to the base controller at any time. When a base controller is ordered with additional accessory options, these options are installed during the time of manufacturing.*

## GDA-1600 Options

|                  |  |
|------------------|--|
| <b>5700-0003</b> | GDA-1600 Auxiliary Common Relay for Alarm 1,2 and Horn             |
| <b>5700-0004</b> | GDA-1600 4-20 mA Input Card, 8 Channel                             |
| <b>5700-0011</b> | GDA-1600 Bridge Sensor Input Card, 8 Channel                       |
| <b>5700-0012</b> | GDA-1600 Alarm Relay Output Card, 8 Channel                        |
| <b>5700-0005</b> | GDA-1600 4-20 mA Output Card, 8 Channel                            |
| <b>5700-0006</b> | GDA-1600 Resistive 4-20 mA Input Card, 8 Channel                   |
| <b>5700-0008</b> | NEMA 4X Expanded Enclosure (Required for 8 Modules or More)        |
| <b>5700-0009</b> | Expansion Back Plane (Required for 5700-0008 Enclosure)            |
| <b>5700-0030</b> | 120 Watt Power Supply (Needed if 24 VDC Required Exceeds 10 Watts) |
| <b>5700-0022</b> | 6 foot I/O PCB Ribbon Cable  |
| <b>5700-0023</b> | 10 inch I/O PCB Ribbon Cable                                       |
| <b>5700-0021</b> | 6 inch I/O I2C Cable   |

## Distributed By:

GasDetectorsUSA.com  
Houston, TX USA  
832-615-3588  
sales@GasDetectorsUSA.com



 MADE IN THE USA

