A robust modular network controller for monitoring and regulating toxic and combustible gases for up to 31 series 60xx detectors.

Applications
- Vehicle Emissions
- Combustible Gases
- Refrigeration Gas Leak Detection
- Industrial Health and Safety

Features
- Stand-alone central control of exhaust ventilation and alarms
- Interfaces to BACnet building automation systems (BTL Certified)
- Displays network activity and alarms
- Supports up to 31 remote gas sensors on twisted pair chain network
- Unlimited sensor zone groupings
- Time based cycle ventilation controls
- Digital and analogue outputs for variable speed drive integration
- Binary input for external inputs and interlocks
DATA SHEET
Model 6000 Controller

Specifications:
• Supports up to 31 series 60xx gas sensors
• Supports BACnet baud rates 9600, 19200, 38400, 76800
• BACnet communication diagnostics
• Supply 24 vac 50/60 hz (17-28 vac) 0.21 amps, 5 va
• Operating temperature -20 ºC to 50 ºC (-4 ºF to 122 ºF)
• Operating humidity 15-90% R4, non condensing
• For indoor use
• Flame resistant Polycarbonate ABS enclosure rated UL94, V0, 5VB, and 5VA
• Relays (1 or 2) SPDT, 5 amp @ 125 vac, non-inductive
  add model 6100 Relay unit (+4 relays)
• Standards: Conforms to UL61010-1, CSA C22.2 61010-1-12, ANSI/ISA 61010-1,
  CSA C22.2 no. 205-12
• Analogue outputs 4-20 ma or 2-10v (model 6000-A)
• Dimensions; 7.7 in. (19 cm) high, 4.8 in. (12 cm) wide, 1.9 in. (5 cm) deep.
• Weight ; 420 grams, 0.93 lb
• Enclosure ABS UL-94-V0, UL-94 - 5VA, Nema 4
• Electrical conduit entries; 0.875 inch, two on top, two on bottom one in rear
Opera model 6000 controller provides a new modular concept for controlling toxic and combustible gases in indoor spaces. The low-cost controller forms the base of a complete stand-alone ventilation control network for assured security plus efficient control of energy costs for small and medium size commercial buildings. For larger projects it provides the perfect gateway to a BACnet based Building Automation System which can monitor the operation of the free-standing system.

The model 6100 Digital Relay Module provides four convenient programmable output relays that can be located anywhere on the local network, to reduce cabling costs. The controller offers three user adjustable alarm levels and a time-based cycle timer to maintain minimum fresh air standards. Once these are met the series 60xx sensors offer state-of-the-art accuracy, so energy for heat and air conditioning is never wasted.

Built-in variable speed drive controls can initiate drive based on fixed gas concentration ranges. It can also regulate the drive speed via analogue outputs by integrating the gas concentration readings from the remote sensors, in a specific group.

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**Complete model number**

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<tr>
<td><strong>Controller 6000</strong></td>
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<td>A  Analogue, 1 relay or B  2 relays, no analogue output</td>
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**Diagram:**

- **Controller 6000**
  - **MSTP to BAS**
  - **6100 Relay (4)**
  - **4-20 mA to VFD**

- **Zone 1**
  - 60xx
  - 60xx
  - 60xx
  - 60xx

- **Zone 2**
  - 60xx
  - 60xx
  - 60xx
  - 60xx

- 24 Vac; 2 conductor 18-20 AUGE
- CAN; 2 conductor shielded 22-24 AUGE
CONNECTIONS

Model 6000-A

- Up Position 4-20Ma
- Down Position 2-10V
- Analogue Output
- ANA1, G, ANA2
- Transformer 120/24 VAC
- 5Va for each unit
- Independant Circuit 120 VAC
- To magnetic starter coil or control relay coil for ventilation
- To building automation system
- CAN network
- High
- Low
- Shield (on 1st unit only)
- 24 VAC or 120 VAC
- To Detectors
- Binary input to limit switch
- Relay 1
- NO COM NC
- Relay 2
- NO COM NC
- EOL CAN
- EOL BACnet
- Model 6000-A

Model 6000-B

- Relay 2
- NO COM NC
- Relay 1
- NO COM NC
- Transformer 120/24 VAC
- 5Va for each unit
- Independant Circuit 120 VAC
- To magnetic starter coil or control relay coil for ventilation
- To building automation system
- CAN network
- High
- Low
- Shield (no connect)
- Shield (on 1st unit only)
- 24 VAC or 120 VAC
- To Detectors
- Binary input to limit switch
- Relay 1
- NO COM NC
- Relay 2
- NO COM NC
- EOL CAN
- EOL BACnet
- Model 6000-B