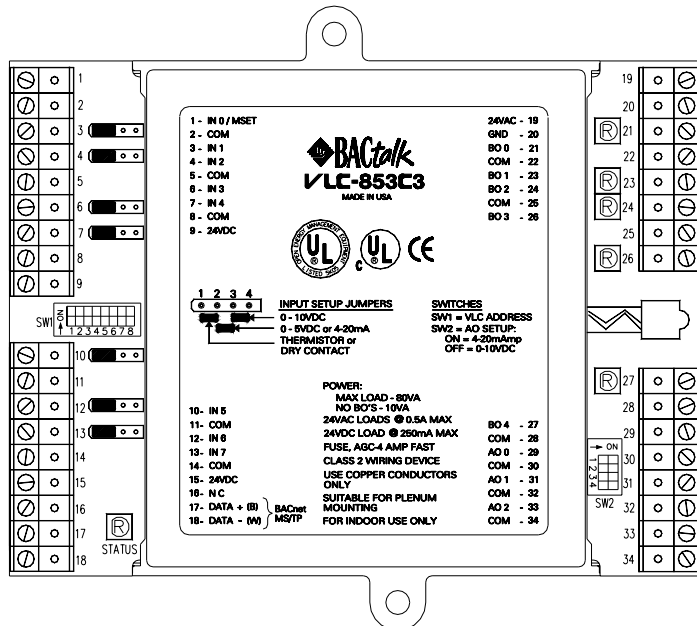




# VLC-853C3

Programmable VisualLogic® Controller



## Features & Application Highlights

- **Capable** Eight 10-bit inputs, five binary outputs, and three 8-bit analog outputs.
- **Interoperable** Fully BACnet-compliant on MS/TP LAN at up to 76.8 Kbps.
- **Versatile** Fully programmable for central plant systems, air handling units, other control and process equipment.
- **Reliable** Extensive onboard filtering, with all program data backed up in nonvolatile EEPROM.
- **Fast** Internal logic loop of 100 msec.

The Alerton® BACtalk® VLC-853C3™ is a high-performance, fully programmable logic controller designed for control of central plant systems, air handling units, large terminal units and similar control and process equipment. The VLC-853C3 is part of Alerton's complete BACtalk product line in total compliance with ANSI/ASHRAE Standard 135-1995, BACnet. As a native BACnet controller, it requires no proprietary chip sets to integrate seamlessly with your BACnet system.

The VLC-853C3 communicates using the standard BACnet protocol on a BACnet MS/TP LAN, which operates at up to 76.8 Kbps. An onboard LED indicates the status of BACnet communications. The VLC-853C3 can also operate as a stand-alone controller. Its design includes support for Alerton's BACtalk Microset™, an intelligent wall sensor unit offering convenient data display and setpoint adjustment.

All VLC-853C3 control logic is programmed with Alerton's easy-to-learn graphical programming language, VisualLogic. This self-documenting software's complete function library enables you to implement entirely flexible

control strategies. A single VLC-853C3 can contain numerous algorithm loops that control various parts or multiple pieces of equipment. Non-volatile EEPROM stores all program data.

The VLC-853C3 is built for high-speed processing, with an internal logical loop time of 100 msec. Programmable timers also maintain a resolution of 100 msec.

High-resolution, 10-bit analog inputs are field-adjustable for thermistor/dry contact, 0-5 VDC/4-20 mA or 0-10 VDC. Analog outputs are switch-selectable for 4-20 mA or 0-10 VDC. An onboard LED for each binary output indicates ON/OFF status.

CMOS circuitry, a four layer circuit board with separate ground plane, and extensive hardware, software, and power-supply filtering ensure reliable and stable operation. The CMOS processor uses an internal watchdog, and power supply voltage is monitored to provide automatic shutdown and data backup.

**Product Number**

**VLC-853C3**

**VLC-853C3 SPECIFICATIONS**

|                           |  |
|---------------------------|--|
| <b>Power</b>              | 24 VAC @ 10 VA min., plus binary output loads (80 VA max). Utilizes a half-wave rectifier, which allows multiple VLCs to be powered from a single transformer. One leg of 24 VAC connects to earth (panel) ground.   |
| <b>Inputs</b>             | 8 inputs with 10-bit resolution. Input 0 can be used for a BACtalk® Microset™. Inputs 1–7 are jumper-selectable for thermistor/dry contact, 0–5 VDC/4–20 mA or 0–10 VDC signals.   |
| <b>Binary Outputs</b>     | 5 outputs, each rated at 24 VAC, 0.5 A. The outputs utilize hot-switched triacs, which have a common connection to the fused 24 VAC supply.  |
| <b>Analog Outputs</b>     | 3 outputs with 8-bit resolution. Each is switch-selectable for 0–10 VDC or 4–20 mA. 4–20 mA outputs are sourced by the VLC. Connected loads must return to the VLC ground. 4–20 mA max. load resistance is 1,000Ω. 0–10 VDC min. load resistance is 500Ω.  |
| <b>24VDC Outputs</b>      | Two terminals provide up to 250 mA (total) of 24 VDC to power transducers or other devices.  |
| <b>Processor</b>          | Motorola CMOS processor with ROM and RAM.  |
| <b>EEPROM</b>             | Provides non-volatile program and data storage.  |
| <b>Max. Dimensions</b>    | 4.9" (125mm) H X 5.4" (136mm) W X 1.4" (36mm) D.   |
| <b>Terminations</b>       | Removable header-type screw terminals accept 14–24 AWG wire.   |
| <b>Environmental</b>      | 32–158°F (0–70°C). 0–95% RH, non-condensing.   |
| <b>Communications</b>     | BACnet MS/TP LAN up to 76.8 Kbps.  |
| <b>BACnet Conformance</b> | Conformance Class 3. See Protocol Implementation Conformance Statement (PICS).   |
| <b>Ratings</b>            | <ul style="list-style-type: none"> <li>Listed Underwriters Laboratory for Open Energy Management Equipment (PAZX) under the UL Standard for Safety 916. Listing includes U.S. and Canadian certification.</li> <li>EMC Directive 89/336/EEC (European CE Mark).</li> <li>FCC Part 15, Subpart J, Class A.</li> </ul> |

*Specifications subject to change without notice.*

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