

**Features and highlights**

- **Capable**  
Six universal 10-bit inputs, three binary high-current relay outputs, two binary triac outputs, and one analog output.
- **Interoperable**  
Fully BACnet-compliant on MS/TP LAN at up to 76.8 Kbps.



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- **Versatile**  
Fully programmable for fan-coil, unit ventilator, and other multi-speed fan or motor applications.
- **Reliable**  
AZ60 processor and extensive on-board filtering, with all program data backed up in nonvolatile flash memory.
- **Fast**  
Internal logic loop of 100 msec.



The Alerton® BACtalk® VLC-651R is a versatile, fully programmable BACnet-compliant field controller. With three software-controlled high-current relays, the VLC-651R is well suited for unit ventilator and fan-coil applications, or any application that requires multi-speed fan or motor control. As a native BACnet controller, it integrates seamlessly with your BACnet system, communicating on a BACnet MS/TP LAN at up to 76.8 Kbps.

The VLC-651R supports the Alerton Microtouch™, as well as the Microset™ and Microset II intelligent wall sensors, which offer convenient data display, setpoint adjustment, and technician access to equipment setup parameters.

All VLC-651R control logic is programmed with Alerton’s easy-to-learn graphical programming language, VisualLogic®. Programming and setup data is stored in nonvolatile flash memory, ensuring stable and reliable operation.

## Technical Data

- **Power** 24 VAC @ 10 VA min., plus binary output loads (40 VA max). Utilizes a half-wave rectifier, which allows a single transformer to power multiple VLCs. One leg of 24 VAC connects to earth (panel) ground.
- **Inputs** 6 universal inputs with 10-bit resolution. Input 0 can be used for a BACtalk Microset or Microset II.
- **Binary Outputs** Two hot-switched triac outputs, which have a common connection to the fused 24 VAC supply. Rated 24 VAC, 0.5 A.

3 independently isolated, normally open relay outputs. Motor load rating: 120 VAC 3/4 HP–277 VAC 3/4 HP. General purpose rating: 120 VAC @ 15 A; 240/277 VAC @ 10 A.

- **Analog Output** Single 0–20 mA output with 10-bit resolution (4–20 mA is achieved in software) sourced by the VLC. 0–10 VDC is attained by wiring a 499 ohm 1/4W ±1% resistor across the 0–20 mA output terminals.
- **24 VDC Output** Uncontrolled output to provide up to 100 mA of 24 VDC power for transducers or other devices.
- **Processor & Memory** Motorola AZ60 processor with on-board flash memory. Flash memory provides nonvolatile program and data storage, and allows for encrypted updates to the program for future product enhancements.
- **Max. Dimensions** 4.9" (125mm)H x 5.5" (140mm)W x 1.4" (36mm)D.
- **Terminations** Removable header-type screw terminals accept 14–24 AWG wire.
- **Environmental** 0–158 deg. F (-17–70 deg. C). 0–95% RH, non-condensing.
- **Communications** BACnet MS/TP LAN up to 76.8 Kbps.
- **BACnet Conformance** ASC level device; tested and approved by BTL. See Protocol Implementation Conformance Statement (PICS).

- **Ratings**

Listed Underwriters Laboratory for Open Energy Management Equipment (PAZX) under the UL Standard for Safety 916

Suitable for plenum mounting

EMC Directive 89/336/EEC (European CE Mark)

FCC Part 15, Subpart J, Class A



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## Ordering information

Item number	Description
VLC-651R	BACtalk field controller for unit ventilator, fan-coil, and multi-speed motor applications
VLC-651R-C	VLC-651R field controller with available custom DDC

Specifications subject to change without notice