



The Alerton® VisualLogic® VLC-1188-E is a versatile, BACnet-compliant, fully programmable field controller designed for central plant systems, air handling units, clean rooms, fume hoods, large terminal units, and similar control and process equipment. As a native BACnet controller, it integrates seamlessly with your BACnet system, communicating at up to 115 Kbps on a BACnet MS/TP LAN.

The VLC-1188-E supports the Alerton Microtouch™, as well as the BACTalk® Microset, Microset II, and Microset 4 intelligent wall sensors, which offer convenient data display, setpoint adjustment, and technician access to equipment setup parameters.

All VLC-1188-E control logic is programmed using Alerton's easy-to-learn graphical programming language, VisualLogic™. Programming and setup data is stored in non-volatile flash memory, ensuring stable and reliable operation.

High-resolution 16-bit universal inputs are auto-selectable for thermistor, dry contact, pulse, 0-5 V, 0-10 V, or 4-20 mA. High-resolution 16-bit analog outputs are auto-selectable for 0-10 V or 0-20 mA.

## VISUALLOGIC® UNITARY FIELD CONTROLLER

### FEATURES AND HIGHLIGHTS

- Fully BACnet-compliant on MS/TP LAN at up to 115.2 Kbps.
- Programmable control logic can be field-modified.
- Downloadable operating code to allow for future software improvements.
- 32-bit processor architecture with all program data backed up in nonvolatile flash memory.
- High-speed processing of DDC program, with an internal logical loop time of 100 msec.
- Backwards compatible with older VLC-1188 and VLC-1188C3 models.

### APPLICATIONS

Recommended for control in central plant systems, heat pumps, air handling units, clean rooms, fume hoods, and large terminal units.



VLC-1188-E						
<b>UI</b> UNIVERSAL INPUTS	<b>HBO</b> HOT SWITCHED TRIAC BINARY OUTPUTS	<b>GB0</b> GROUND SWITCHED BINARY OUTPUTS	<b>RO</b> RELAY OUTPUT	<b>AO</b> ANALOG OUTPUTS	<b>AF</b> AIR-FLOW SENSOR	<b>F</b> FILTER
<b>11</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>-</b>	<b>-</b>

**TECHNICAL DATA**

**POWER** – 24 VAC @ 50-60 Hz. 28 VA minimum (maximum 100 VA across all BO loads). Half-wave rectified. See IMPORTANT NOTE below.

**INPUTS** – 16-bit universal inputs accept 3k (Ibex) or 10k thermistor (type II), dry contact, 0-20 mA, 0-10V, 0-5V, or dry-contact pulse. External 250-ohm resistor required for 0-20 mA inputs. Pulse input maximum frequency of 100 Hz. Pulse input minimum duty cycle 5mS ON / 5mS OFF (pulse input not supported on IN-0).

**POWER OUTPUT FOR EXTERNAL SENSORS** – 20 VDC  $\pm 10\%$  @ 100 mA maximum

**BINARY OUTPUTS** – Triacs rated 24 VAC @ 50/60 Hz, 500 mA continuous and 800 mA (AC rms) for 60 milliseconds. See IMPORTANT NOTE below.

**ANALOG OUTPUTS** – 16-bit universal analog outputs support Voltage Mode: 0-10 VDC @ 10 mA maximum (1k ohm minimum); Current Mode: 4-20 mA @ 550 ohms Maximum.

**MICROSET** – Supports BACtalk® Microset™, Microset II, or Microset 4 on input 0 (IN-0).

**INPUT/OUTPUT TERMINATIONS** – Removable header-type screw terminals accept 14-24 AWG wire

**MAX DIMENSIONS** – 7.0" (178mm) H x 5.0" (127mm W x 1.5" (38mm) D

**MOUNTING** – Screw mounting

**ENVIRONMENTAL** – 0 to 158°F (-17 to 70°C) / 5 to 95%RH, non-condensing

**COMMUNICATIONS** – EIA-485 (RS-485) over twisted shielded-pair (TSP); auto-baud switching (9.6kbps, 19.2kbps, 38.4kbps, 76.8kbps, or 115.2kbps); communication status LED.

**PROTOCOLS** – BACnet MS/TP (master)

**PROGRAMMING** – Supports Alerton's BD4 DDC file format using Alerton's VisualLogic® toolset.

**MICROPROCESSOR** – 32-bit ARM Cortex-M4F, 80 MHz

**MEMORY** – 512 MB non-volatile flash.

**SECURITY** – Integrated secure boot prevents loading of tampered firmware.

**ORDERING INFORMATION****ITEM NUMBER**

VLC-1188-E ALERTON VISUALLOGIC  
CONTROLLER BACNET

**CERTIFICATION AND CONFORMANCE**

**BACNET CONFORMANCE** – An application specific controller (ASC) level device; tested and approved by BTL. See Protocol Implementation Conformance Statement (PICS).

**UL** – Listed Underwriters Laboratory for Open Energy Management Equipment (PAZX) under the UL Standard for Safety 916; listing includes both U.S. and Canadian certification.

**EMC** – EMC Directive 89/336/EEC (European CE Mark).

**FCC** – This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**IMPORTANT NOTE:**

This device is UL listed and limited to 100VA maximum. Binary output loads are restricted by this maximum VA rating. If all 8 binary outputs are connected and fully loaded (@12VA each) the total VA of the device will exceed the UL listed and limited maximum rating. DO NOT EXCEED 100VA MAXIMUM RATING!



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