

Features

- **Scalable**
Combine up to 8 EXP modules with a single VLX to create versatile control solutions.
- **Versatile**
Onboard Hand-Off-Auto (H-O-A) switches and potentiometers enable manual override of outputs. Binary triac outputs and analog outputs are designed for complex applications.
- **Accurate**
12-bit universal inputs accept a variety of industry-standard inputs, enabling wide application flexibility.



Expansion modules (EXPs) provide I/O capability for the Alerton VLX. The versatile VLX/EXP configuration is the ideal choice for applications that put a premium on versatility, reliability, and performance—large air handling units, central plant systems, motor control centers, and other applications with numerous, interdependent control points. Available EXP modules include:

- **EXP-10120** 10 universal inputs, 12 binary outputs, 0 analog outputs
- **EXP-1048** 10 universal inputs, 4 binary outputs, 8 analog outputs
- **EXP-2200** 22 universal inputs, 0 binary outputs, 0 analog outputs

EXPs connect to the VLX over a simple, twisted-pair, multi-drop EXP communications bus. The VLX supervises automation locally and provides connection to a BACnet internetwork. Combine a maximum of 8 EXPs per VLX for the I/O count your application requires.

Each EXP output has a Hand-Off-Auto (H-O-A) switch for manual override at the controller. Analog outputs also include a potentiometer to manually adjust the output when the switch is in Hand mode.

EXPs feature a high-speed microprocessor with flash memory for non-volatile program storage. The 12-bit universal inputs are software configurable to accept virtually any input type. 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.

Technical data

Power Unit requires 24 VAC, 50-60 Hz, 20 VA minimum. Half-wave rectified. EXPs and VLX can share unit power. Output loads powered separately.

Inputs Jumper-selectable, 12-bit universal inputs accept thermistor, dry contact, 0–5VDC, 4–20 mA, or 0–10 VDC signals. Inputs 1, 2, and 3 support pulsed inputs with 10 msec minimum pulse length. No external resistor is required for 4–20 mA.

Binary Outputs Binary outputs rated 24 VAC @ 0.5 A with Hand-Off-Auto (H-O-A) switches for manual override. H-O-A status can be monitored in software. Power source isolated from EXP power.

Analog Outputs Analog outputs are driven by precision D/A converter. DIP-switch configurable to provide 0–10 VDC or 0–20 mA. Each analog output has an H-O-A switch and potentiometer for manual override. H-O-A and potentiometer status can be monitored in software.

Max. Dimensions

7 1/8" (182 mm) H X 7 5/16" (185 mm) W X 1 1/2" (38 mm) D.

Terminations Removable header-type screw terminals simplify field wiring.

Environmental 32–131°F (0–55°C). 0–95% RH, non-condensing.

Communications Twisted-pair, multi-drop EXP communications bus to VLX base unit.

Ratings

- 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 Directive 89/336/EEC (European CE Mark).
- FCC Part 15, Subpart J, Class A.

Ordering information

Item number	Description
LTBT-EXP-10120	I/O expansion module with 10 inputs and 12 binary outputs
LTBT-EXP-1048	I/O expansion module with 10 inputs, 4 binary outputs, and 8 analog outputs
LTBT-EXP-2200	I/O expansion module with 22 inputs

Specifications subject to change without notice

