EXPs

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.

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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.

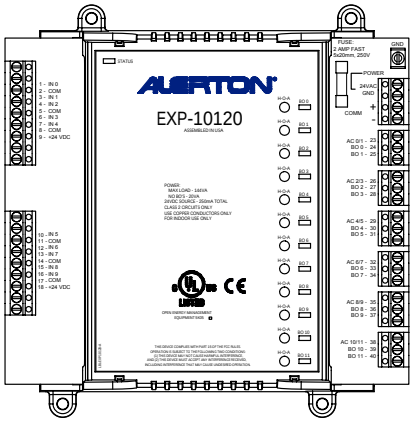
Terminations Removable header-type screw terminals simplify field wiring.

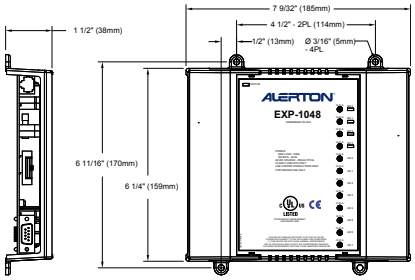
Environmental 32–131°F (0–55°C). 0–95% RH, non-condensing.

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