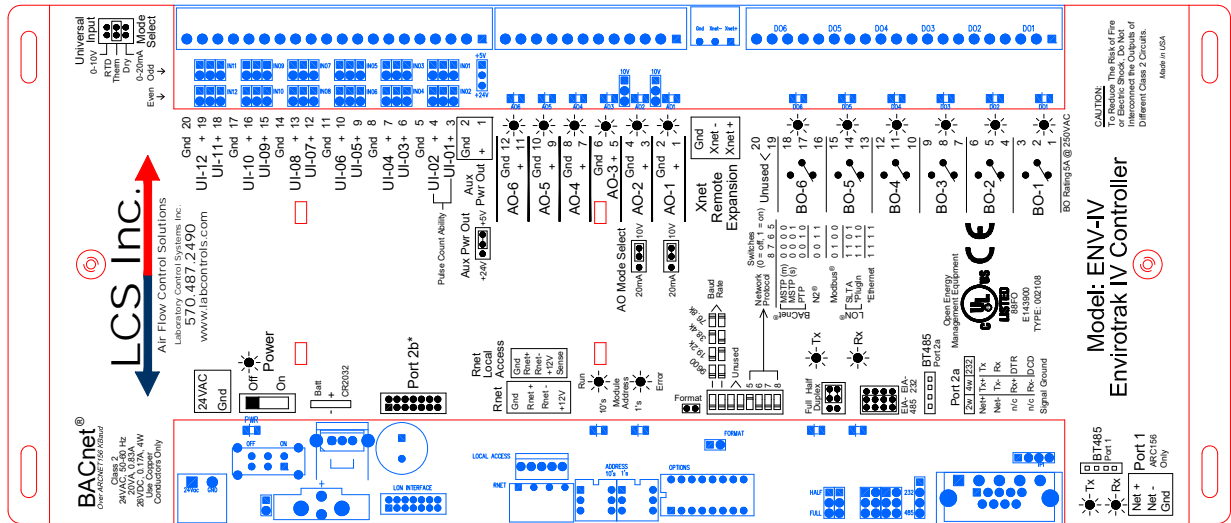


ENVIROTRAK® IV CONTROLLER

ENV IV



GENERAL DESCRIPTION

The Envirotrak® IV (Model No.: ENV-IV) is a high speed native BACnet microprocessor based controller, designed for fume hood, laboratory air flow, isolation and containment room control applications. The ENV IV can easily be customized to meet any sequence of operation needs for demanding and complex applications. Fully capable of operating in a 100% stand-alone control mode, the ENV IV can connect to a Building Automation System (BAS) using any of today's four leading protocols: BACnet (ARC156, MS/TP, and PTP), Modbus RTU, N2, and LonWorks. The point mapping to all of these protocols can be pre-set, so that the protocol and baud rates desired can be easily field-selected without the need for any additional downloads or technician assistance. The ENV IV provides ample input/output capacity on the base controller, plus support for one expansion board if additional I/O capacity is needed.

Key Features and Benefits

Communications:

- ◆ 3 - Dedicated Communication Ports
 1. Rnet Sensor Network/Local Access
 2. ARC156 high-speed BACnet network
 3. Xnet Point Expansion Network
- ◆ 1 - Configurable 485/232 Communication Port

This port allows integration with a Building Automation System (BAS).
A dip switch is used to choose the active protocol between BACnet, Modbus RTU, N2, and *LonWorks. (*Note: LonWorks requires additional plug-in card for full support)

I/O Control:

- ◆ I/O point count: 24 on-board (6-DOs, 12-Universal Inputs, 6-AOs), up to 48 points total with ENV-IV-Ex8160 expander
- ◆ Digital Outputs rated at 5 Amps / 250 VAC



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Model Number:
ENV IV

Drawing Number:
ENV IV-DS

Date:
2/9/18

Rev. A

- ◆ Jumper configurable universal inputs to minimize wasted points
- ◆ LED indication of binary and analog outputs for operational validation

Programmability / Servicability:

- ◆ Custom-programmable using our powerful EIKON® graphic programming tool. The EIKON tool allows you to create graphic control sequences for your application, which can be fully simulated off-line (with the EIKON simulation tool)
- ◆ Support for “Live Logic”, the ultimate diagnostic tool allows for real-time troubleshooting of the control logic while the equipment is running
- ◆ Built-in support through an Rnet port for custom-configurable keypad display units including the Equipment Touch 4.3” touchscreen, ZS intelligent communicating sensors, and for local laptop access

Performance:

- ◆ Powerful, high-speed 16-bit microprocessor with 1MB Flash memory and 1MB of battery-backed RAM. Memory upgrades can be downloaded locally via the Rnet port or remotely via the network - no chip replacements necessary
- ◆ Rugged, proven hardware platform

<u>Power</u>	24 Vac ± 10%, 50-60 Hz, 20 VA power consumption (26 VA with BACview attached), 26 Vdc (25 V min, 30 V max), Single Class 2 source only, 100 VA or less
<u>Physical</u>	Rugged aluminum housing, removable screw terminals
<u>Operating Range</u>	-20° to 140°F (-29° to 60°C); 10 to 95% relative humidity, non-condensing
<u>Binary Outputs</u>	6 binary outputs, relay contacts rated at 5 A resistive @ 250 Vac; configured as dry contact, normally open or normally closed
<u>Universal Inputs</u>	12 configurable universal inputs with 14-bit A/D resolution. Supported input types include: 0-5 Vdc, 0-10 Vdc, 0-20 mA, Thermistor (10k Ohm Type II), 1k Ohm RTD (Platinum, Nickel, or Balco), and Dry Contact. All inputs support pulse counting up to 40 cycles per second (25mSec minimum pulse)
<u>Analog Outputs</u>	6 analog outputs; AO’s 1 and 2 are configurable for 0-10 V or 0-20 mA; AO’s 3 through 6 are 0-10 V only
<u>Communication Ports</u>	Port 1: Connect to ARC156 kbps Port 2a: Configurable for EIA-232 or EIA-485 (2-wire or 4-wire). Network protocol selectable for BACnet (MS/TP or PTP), Modbus, N2, LonWorks SLTA, or modem Rnet port: Interface with a BACview5, BACview6, ZS sensors, or local laptop Xnet Remote Expansion port: Connect to an I/O FlexEx8160 point expander via the Xnet network
<u>Optional Card Port</u>	LonWorks: Option Card for connection to Free Topology LON networks (TP/FT-10 Channel)
<u>Status Indication</u>	Visual (LED) status of power, running, and errors. LED indicators for transmit/receive for Port 1 and Port 2a and for each of the 12 outputs
<u>Battery</u>	Lithium 3V coin cell battery, CR2032, provides a minimum of 10,000 hours of data retention during power outages
<u>Protection</u>	Surge and transient protection circuitry for power and communications
<u>Listed by</u>	UL 916 (PAZX), cUL 916 (PAZX7), FCC Part 15-Subpart B-Class A. CE EN50082-1997
<u>Dimensions</u>	5” (width) by 11-13/16” (height) by 1-1/2”
<u>Weight</u>	1.7 lb. (0.8 kg)



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