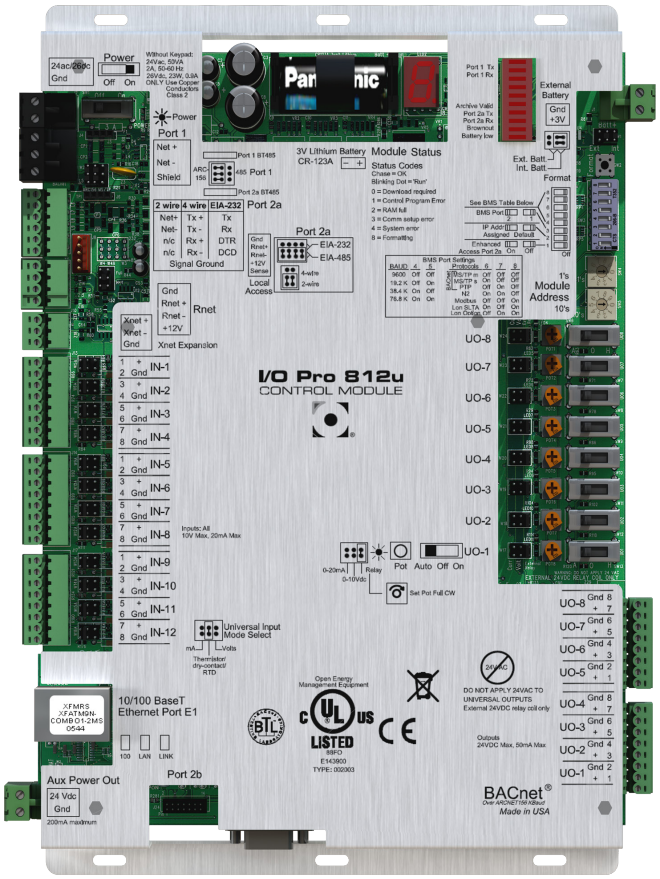
Stand-Alone Controller

I/O Pro 812u

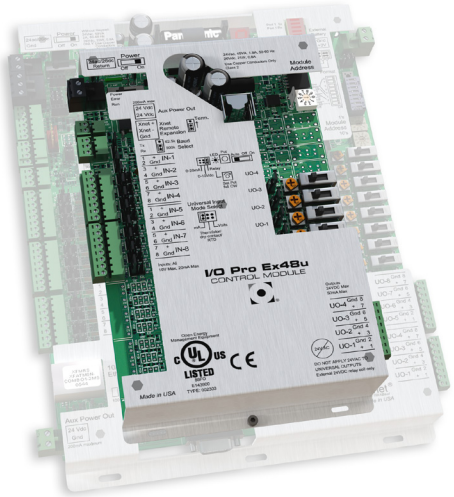
The I/O Pro 812u is a general-use controller that you can easily customize to meet any sequence of operation needs. Fully capable of operating in a 100% stand-alone control mode, the I/O Pro 812u can connect to a Building Automation System (BAS) using any of today's four leading protocols: BACnet (IP, Ethernet, 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 I/O Pro 812u provides ample input/output capacity on the base controller, plus support for multiple expansion boards if additional I/O capacity is needed.



Key Features and Benefits

- I/O point count: up to 140 I/O points using the I/O Pro Ex816u. Also compatible with I/O Flex Ex8160 expander board
- Built-in dip switch-configurable protocol support for automation systems: BACnet (IP, ARC156, MS/TP, and PTP modes), Modbus RTU, N2, and LonWorks
- Remote access support over the Internet/Intranet or modem
- Custom-programmable using our powerful Eikon graphic programming tool. Eikon allows you to create graphic control sequences for your application, which can be fully simulated off-line (with Eikon's simulation tool) and graphically viewable live on your equipment - the ultimate diagnostic tool
- Powerful, high-speed 32-bit Motorola Power PC microprocessor with 8MB Flash memory and 16MB of battery-backed SDRAM. Firmware upgrades can be downloaded locally or remotely - no chip replacements necessary
- Built-in support through an Rnet port for OEMCtrl's custom-configurable keypad/display units, for BAC*view*^{5} (2 line by 16 character per line display); for BAC*view*^{6} (4-line by 40 character per line display); for intelligent sensors; and for local laptop access

Point Expanders - I/O Pro Ex48u and I/O Pro Ex816u



The Ex series of I/O expanders are designed for the powerful I/O Pro controller, and for the most demanding control applications in the industry. The Ex I/O expanders can be remote-mounted or directly mounted on the I/O Pro controllers

- High resolution Universal Inputs and Outputs for accuracy
- When used with the I/O Pro, allows for easy expansion of I/O using up to five Ex I/O expanders in a stack panel configuration or remote-mounted up to 100 ft. away for scalable solutions
- First Ex I/O expander that can be mounted directly on top of the I/O Pro controller, reducing control panel space
- Removable screw connectors for easy wiring, termination, and service
- Tough construction delivers superior performance and reliability. Expanders are constructed with a rugged aluminum cover which provides optimum electrical protection and noise immunity
- LED indicators of power, output, running, and error status, providing a quick overview of module status

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Specifications

Power	24 Vac ± 10%, 50-60 Hz, 50 VA power consumption (56 VA with BAC*view* attached), 26 Vdc (25 V min, 30 V max), Single Class 2 source only, 100 VA or less
Physical	Rugged aluminum housing, removable screw terminals with custom silk screening available
Operating Range	-20° to 140°F (-29° to 60°C); 10 to 95% relative humidity, non-condensing
Universal Outputs	8 universal outputs that are jumper-configurable as 0-10 Vdc, or 0-20 mA dc with 12-bit A/D or 24 Vdc @ 50 mA relay drive. HOA (hand/off/auto) switches for all outputs, including potentiometer for manual adjustment of analog outputs.
Universal Inputs	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).
Communication Ports BACnet Modbus N2	Port 1: Configurable for ARC156 or EIA-485 (2-wire). Built-in support for BACnet (MS/TP or ARC156), N2, and Modbus, allowing connection to auxillary devices such as equipment-mounted VFD's, burners, compressors, etc.. Proprietary communication protocol support is also available 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 BAC*view*[5], BAC*view*[6] , RS sensors, or local laptop. Xnet Remote Expansion port: Connect up to five I/O Pro Ex816u or I/O Flex Ex8160 point expanders via the Xnet network
Optional Card Port LonWorks	LonWorks Option Card for connection to Free Topology LON networks (TP/FT-10 Channell)
Status Indication	Visual (LED) status of power, running, and errors. LED indicators for transmit/ receive for Port 1 and Port 2 and for each of the 8 outputs
Battery	Battery CR123A has a life of 10 years with 720 hours of cumulative power outage
Protection	Surge and transient protection circuitry for power and communications
Listed by	UL-916 (Canadian Std C22.2 No. 205-M1983), CE, FCC Part 15-Subpart B - Class A. BTL (BACnet Test Labs) - BACnet Building Controller (B-BC) - BTL Listed Product http://www.bacnetinternational.net/btl/index.php?m=47

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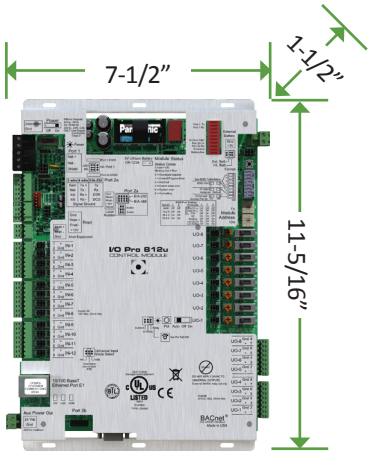

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