I/O FLEX 6126 - Programmable Controller

The I/O Flex 6126 is a general-use controller that is easily customized to meet any sequence of operational needs. Fully capable of operating in a 100% stand-alone control mode, the I/O Flex 6126 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 are easily field-selected without the need for any additional downloads or technician assistance. The I/O Flex 6126 provides ample input/output capacity on the base controller, plus support for an expander 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 I/O FlexEx 8160 expander
- Digital Outputs rated at 5 Amps / 250 VAC
- 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 OEMCtrl's 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

I/O Flex 6126



I/O Flex Ex8160 (point expander shown mounted on top)





Specifications

Power	24 Vac \pm 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
Physical	Rugged aluminum housing, removable screw terminals with custom silk screening available.
Operating Range	-20°F to 140°F (-29° to 60°C); 10 to 95% relative humidity, non-condensing.
Binary Outputs	6 binary outputs, relay contacts rated at 5 A resistive @ 250 Vac; configured as dry contact, normally open or normally closed.
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).
Analog Outputs	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
Communication Ports BACnet Modbus N2	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 BACview ⁵ , BACview ⁶ , ZS sensors, or local laptop. Xnet Remote Expansion port: Connect to an I/O FlexEx8160 point expander via the Xnet network.
Optional Card Port LonWorks	LonWorks Option Card for connection to Free Topology LON networks (TP/FT-10 Channel)
Status Indication	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
Battery	Lithium 3V coin cell battery, CR2032, provides a minimum of 10,000 hours of data retention during power outages
Protection	Surge and transient protection circuitry for power and communications
Compliance/Listing BACnet* CEF© 49 UK ROHS 2011/65/EU	BACnet: Conforms to the BACnet Advanced Application Controller (B-AAC) Standard Device, as defined in BACnet 135-2001 2012 Annex L and tested to Protocol Revision 9 United States: FCC compliant to Title CFR47, Part 15, Subpart B, Class A; UL Listed, File E143900; CCN PAZX, UL 916, Energy Management Equipment; ANZ: RCM Mark AS/NZS 61000-6-3; Canada: UL Listed File E143900, CCN PAZX7, CAN/CSA C22.2 No. 205 Signal Equip., Industry Canada Compliant ICES-003, Class A; CE Mark Compliant with 2014/30/EU, and RoHS Compliant: 2015/863/EU; UKCA Mark compliant with Electromagnetic Compatibility Regulations 2016 – Gov. UK and RoHS for Electrical and Electronic Equipment 2012.
Physical	Dimensions A: 5 in. (12.7 cm) B: 11 13/16 in. (30 cm) Depth: 1 1/2 in. (3.81 cm)



