OptiFlex™ I/O Expanders
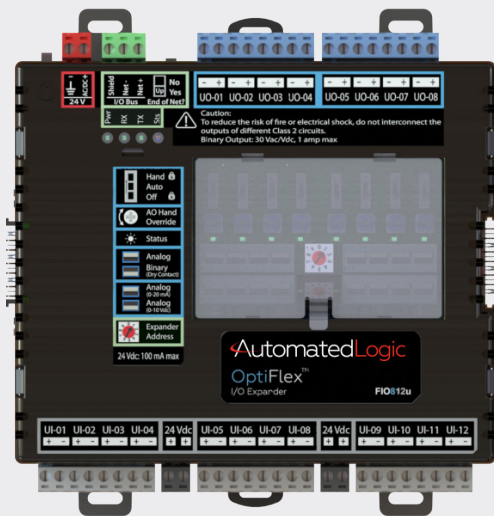
I/O Expanders for OptiFlex BACnet Building Controllers

Part#s FIO48u, FIO88u, FIO812u and FIO012u

Automated Logic® OptiFlex I/O expanders are integral components of the WebCTRL® building automation system.

OptiFlex I/O expanders deliver input and output capacity to the powerful OptiFlex BACnet Building Controllers. Up to nine OptiFlex I/O expanders can be added to an OptiFlex BACnet Building controller.

OptiFlex I/O expanders are designed for flexible panel configurations. They are DIN rail or screw-tab mountable and can be mixed and matched to meet the I/O requirements of the equipment being controlled. The expanders can be mounted directly to the OFBBC controller or remotely mounted up to 500' away.

Part#	FIO48u	FIO88u	FIO812u	FIO012u
Universal Outputs	4	8	8	0
Universal Inputs	8	8	12	12

Key Features and Benefits

Hardware Features
- DIN rail or screw mounting

Compatible with OptiFlex BACnet Building Controllers Models
- OF1628
- OF1628-NR
- OF028NR
- OFBBC
- OFBBC-NR

The WebCTRL® system gives you the ability to understand your building operations and analyze the results. Integrate environmental, energy, security and safety systems into one powerful management tool that allows you to reduce energy consumption, increase occupant comfort, and achieve sustainable building operations.

WE MAKE BUILDINGS BETTER.
Next level building automation engineered to help you make smart decisions.

OptiFlex™ I/O Expanders

I/O Expanders for OptiFlex BACnet Building Controllers

Power Requirements:	24 Vac ± 10%, 50–60 Hz, 50 VA or 26 Vdc ± 10%, 12W
I/O Bus port	Provides communication for wired FIO expanders that are powered by external power supplies.
I/O bus edge connector	6-pin connector that provides communication and power to a directly-connected OptiFlex I/O expander.
Configurable Inputs	Configurable in the control program for 0–5 Vdc, 0–10 Vdc, 0–20 mA, RTD, thermistor, dry contact, or pulse counter
Input resolution	16 bit A/D
Input pulse frequency	40 pulses per second, Max. Minimum pulse width (on or off time) required for each pulse is 12.5 msec.
Configurable Outputs	Outputs can be set as analog or binary outputs and feature Hand-Auto-Off (HAO) switches are on each outpt, including potentiometers for manual adjustment of analog outputs. Analog outputs can be used for 0-10 Vdc or 0-20 mA devices Binary outputs have a built-in relay and can be used to switch external devices or relays up to 1A, 30 Vac/Vdc
Output resolution	12 bit D/A
Microprocessor	32-bit microprocessor with 256 kB Flash memory and 64 kB SRAM
Protection	The OptiFlex I/O expander has two fast acting, 5mm x 20mm glass fuses: A 2A fuse for the FIO expander's power A 4A fuse for the I/O bus edge connector The power and network ports comply with the EMC requirements EN50491-5-2.
Environmental Operating Range:	-40°F to 158°F (-40°C to 70°C); 10 to 95% relative humidity, non-condensing. **NOTE:** Install in a UL Listed enclosure only.
Terminal connectors	Screw-type terminal blocks. 0.2 in (5.08 mm) pitch connectors
Status Indicators:	LED status indicators for Power, Run, Error, Xnet TX and Xnet Rx

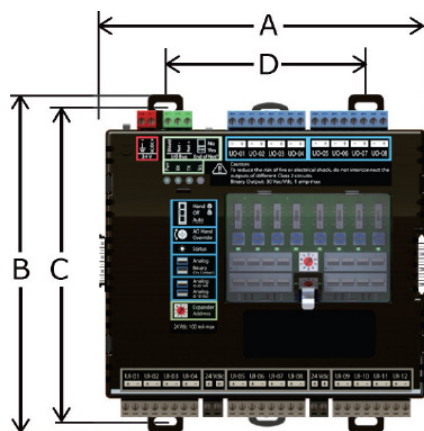|	
Compliance	**United States of America:** FCC compliant to Title CFR47, Chapter 1, Subchapter A, Part 15, Subpart B, Class A; UL Listed to UL 916, PAZX, Energy Management Equipment
	Canada: Industry Canada Compliant, ICES-003, Class A cUL Listed UL 916, PAZX7, Energy Management Equipment
	Europe: Mark EN50491-5-2:2009; Part 5-2: EMC requirements for HBES/BACS used in residential, commercial and light industry environment EN50491-3:2009, Part 3: Electrical safety requirements for Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) Low Voltage Directive: 2014/35/EU RoHS Compliant: 2011/65/EU
	Australia and New Zealand: C-Tick Mark, AS/NZS 61000-6-3

RoHS
2011/65/EU

Dimensions	**Overall**	**Screw mounting**
	A 6.9 in. (17.53 cm)	**C** 6.45 in (16.38 cm)
	B 6.95 in. (17.65 cm)	**D** 4.1 in. (10.4 cm)
	Depth: 2.09 in. (5.31 cm)	
	Recommended panel depth 2 3/4 in. (7 cm)	
Weight	1.1 lb. (0.49 kg)	

Automated Logic

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