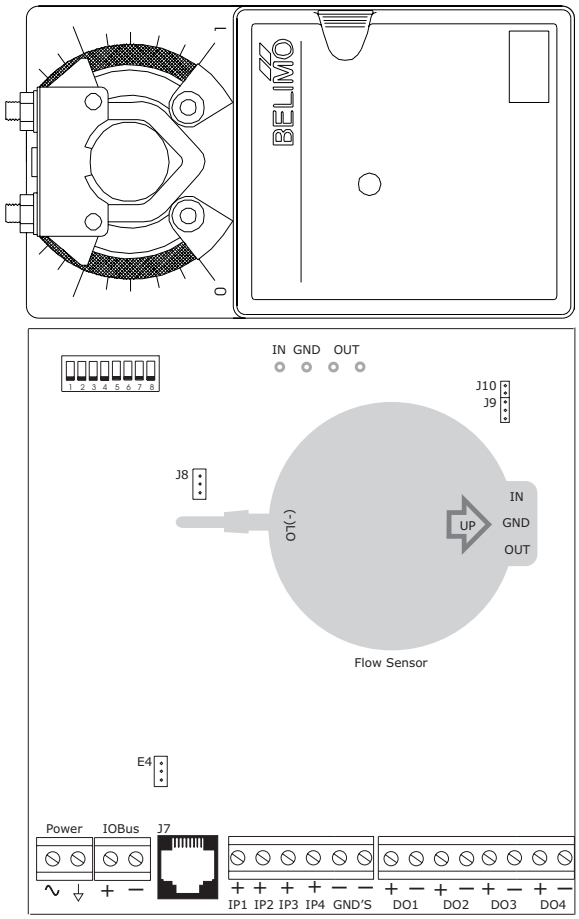
WALKER SYSTEMS
building intelligence

IOB-VAV
(I/O Bus VAV Unitary Controller)



DESCRIPTION

The IOB-VAV I/O Bus Module provides a SAC with a unitary VAV controller. The module comes in many factory-assembled configurations for use as a complete unitary airflow station. The module can include remote flow sensor and its input circuitry, motor and its output drive circuitry, and additional inputs and outputs. The flow sensor module is a Kavlico.

APPLICATION

- provides an expansion VAV module to any SAC panel

FEATURES

Hardware

- inputs (i.e. for Kavlico flow sensor (1 in. of water), or other input devices)
- output drive circuitry for M1 motor, Belimo LM24-M motor or other devices
- feedback positioning potentiometer (optional)
- PIC controller for I/O Bus communications
- 8 bit A/D
- PWM output 8 bit resolution

Power

- powered from I/O Bus or 24 VAC

Cable

- 18 AWG twisted shielded pair (same cable used for SmartLAN)

Communication

- 9600 bps
- uses Walker ASCII Protocol

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Open Energy Management Equipment LISTED 916 PAZX

FORM # WSC99-081

IOB-VAV TECHNICAL SPECIFICATIONS

PART NUMBERS

PART NUMBER	DESCRIPTION
IOB-VAV	Unitary VAV controller (4 inputs available)
IOB-VAV-RM	Unitary VAV controller (RoomSTAT only option)
IOB-VAV-DO4	DO4 expansion option
IOB-VAV-OP2	OP2 expansion option
IOB-VAV-DO2OP2	DO2 and OP2 expansion options
IOB-VAV-DO4-P	DO4 expansion option with positional feedback
IOB-VAV-OP2-P	OP2 expansion option with positional feedback
IOB-VAV-DO2OP2-P	DO2 and OP2 expansion options with positional feedback

INCLUDES

TYPE	INPUTS				OUTPUTS			IUL*	
	Temperature** or Digital	Kavlico Sensor	Voltage	Motor Feedback	Motor Drive	Digital Outputs	Universal	I/O Bus Power	External Power
IOB-VAV	3	1	1		1			5	1
IOB-VAV-RM	RoomSTAT only	1			1			5	1
IOB-VAV-DO4	3	1	1		1	4		5	1
IOB-VAV-OP2	3	1	1		1		2	15	1
IOB-VAV-DO2OP2	3	1	1		1	2	2	15	1
IOB-VAV-DO4-P	3	1		1	1	4		5	1
IOB-VAV-OP2-P	3	1		1	1	2	2	15	1
IOB-VAV-DO2OP2-P	3	1		1	1	2	2	15	1

* I/O Bus Loading

** Roomstats 30/31/32/36 can be physically connected to temperature inputs, Roomstats 34 and 35 can be used but use up 1 temperature input

INPUTS

TYPE	USAGE	RANGES	DEVICES	DISPLAY
Inputs	voltage	0-10 VDC	standard devices	0 to 100%
	digital	1 mA to GND / 10 mA to GND	contact closures	user defined
	temperature	-10°C to 140°C (14°F to 284°F)	3k thermistor	temperature
	temperature	-40°C to 40°C (-40°F to 104°F)	1k thermistor	temperature
	existing sensors	inputs can be adapted to operate with existing sensors	temperature, etc.	
Flow	diff. air pressure	see Kavlico Flow Sensor # D2	flow sensor	0 to 100%

OUTPUTS

TYPE	USAGE	RANGES	CAPACITY	DISPLAY
Universal	Analog Voltage	0-10 VDC*	40 mA**	0 to 100%
	Digital Voltage	0-10 VDC	40 mA	User defined
	current	4-20 mA	500 Ω	0 to 100%
		4-20 mA	250 Ω	0 to 100%
digital	Triac drive	Solid State relays for AC loads	30 VAC @ 1.2 A	user defined

* Fully modulating linear output with 10 bit accuracy

** Internal current limiting

Continued...

IOB-VAV TECHNICAL SPECIFICATIONS

COMMUNICATION PORTS

TYPE	QTY	USAGE	9.6 kbps
I/O Bus	1	Walker ASCII Protocol I/O Bus	✓
RS-232	1	Roomstat or temperature input	✓

ELECTRICAL / MECHANICAL

POWER SUPPLY	BOARD SIZE	I/O BUS LOADING (IUL)
I/O BUS	127 x 115 mm	5
24VAC		1

25.4mm = 1.0 inches