

Description

Figure 1: EasyIO FW-VAV controller



The new EasyIO® Variable Air Volume (VAV) IP controllers feature a powered damper actuator, and an integrated digital differential pressure transducer (DPT). The controller comes with a suite of dashboards, applications, and an onboard database. The controller features five standard applications that you can download and commission with a web browser.

Features

Built-in features

- A real-time clock enables the controllers to monitor and control schedules, calendars, and trends and when offline the controllers operate as stand-alone controllers for an extended period of time.
- Dual ethernet port capability facilitates a normal network switch and supports both ethernet daisy chains with up to 9 units, or up to 30 units when used within spanning tree protocol and connected in a ring.

- BACnet® IP client/server, BACnet MS/TP client/server, Modbus® TCP/RTU, M/S as well as Sox, P2P and MQTT.
- Pressure pick up sensor for air flow measurement.
- 4 universal inputs (UI), 2 analog outputs (AO), and 3 digital outputs (DO). You can expand input capacity with the EasyIO FD-20i.
- Embedded program logic for common applications, or use EasyIO CPT tools to make the controller fully programmable
- HTML5 ready dashboards and is programmable live through CPT.
- Network time protocol (NTPv4) client.
- SMTP protocol for outgoing email with SSL authentication.

Support features

- Easy connection to the wired and wireless network sensors and discharge air temperature sensors.
- IT network security standards, Wi-Fi b/g/n, and can integrate into your existing network or act as an isolated Building Management System (BMS) Wi-Fi network.
- Air flow balancing through any HTML5 compatible web browser without special tools.
- SSL certificate support
- MQTT, restful API, and other web services.
- SQL Lite up to 6,000 records.
- Licenses and annual maintenance in the one-time cost of the controller.

Ordering information

Table 1: Product order code and description

Product code	Description
EasyIO FW-VAV	EasyIO programmable FW-VAV controller, integrated actuator

Technical specifications

Table 2: FW-VAV UL input, output, and communication ratings

Description	Specification			Terminal
Power supply	24 VAC (nominal, 20 VAC minimum/30 VAC maximum), 50/60 Hz, Power Supply Class 2 (North America), Safety Extra-Low Voltage (SELV) (Europe)			HOT and COM
Power consumption	14 VA maximum			
Universal inputs	Voltage	0 VDC to 10 VDC, Class 2	3% accuracy	UI1 and COM to UI4 and COM
	Resistance	400 ohm to 200,000 ohm		
Digital outputs (Triac)	24 VAC, 0.5 A pilot duty, Class 2 (External power)			DO1, DO2, DO3
Analog output	Voltage	0 VDC to 10 VDC Minimum 2,000 ohm impedance	3% accuracy	AO1 and COM to AO2 and COM
EIA/RS-485	Class 2			SA Bus +, -
Ethernet ports	Class 2			ETH 1
				ETH 2
Componant	Specification			
Differential pressure sensor specifications				
Airflow sensor	0 Pa to 500 Pa per 0 in. to 2 in. of water			3% accuracy

Table 3: FW-VAV controller specifications

Controller processor and memory specifications	
Main processor	Qualcomm 560 MHz
Processor	ARM Cortex 48 MHz
Flash memory	32 MB
RAM	128 MB
Product temperature and humidity specifications	
Operating temperatures	0°C to 50°C (32°F to 122°F)
Storage temperatures	-40°C to 70°C (-40°F to 158°F)
Operating humidity	10% to 90% relative humidity, non-condensing
Physical specifications	
Dimension	165 mm x 125 mm x 73 mm (6.5 in. x 4.9 in. x 2.9 in.)
Material	UL Approved

Table 3: FW-VAV controller specifications

Controller processor and memory specifications	
Weight	500 g
Wireless ratings	
Standard	IEEE 802.11
Band	b/g/n
Frequency range	2412 MHz to 2462 MHz
Antenna	2.2 dBi dipole
Transmission power	18.98 dBm EIRP

Repair Information

If a controller or any related product fails to operate within its specifications, replace the product. For replacement products, contact the nearest Johnson Controls® representative.

Patents

Patents: <https://jccpat.com>

Product Warranty

This product is covered by a limited warranty, details of which can be found at www.johnsoncontrols.com/buildingswarranty.

Single Point of Contact

APAC	EU	UK	NA/SA
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Contact Information

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