

This document includes minimum legal and warranty information only. Read the linked document and any other relevant bulletins, safety warnings and cautions before dismounting, rigging, forking, moving, installing, using or maintaining the product.



QR Code

Scan the QR code to view EasyIO FW-VAV Quick Start Guide.

Document link
<https://rebrand.ly/EasyIO-FW-VAV-Quick-Start-Guide>

If you cannot locate these guides using the QR code or link, contact us immediately at www.johnsoncontrols.com/contact-us

Included in this pack

- One VAV controller with removable terminal blocks
- One No. 10 self-drilling 25 mm or 1 in. screw

Required tools and parts

- One small slotted screwdriver to secure wires to terminal blocks
- One 8 mm or 5/16 in. wrench or a 10 mm or one 3/8 in. 12-point socket
- Shims or washers to level the controller
- One power screwdriver
- One hole punch
- One 3.5 mm or 9/64 in. drill bit
- One pair of pliers
- The length you require of 3.97 mm of 5/32 in. ID pneumatic

! WARNING

There is a risk of electric shock. Before you make electrical connections, disconnect.

! CAUTION

Risk of property damage. Rotate the damper to the full-open position before you start the air handler. If you do not rotate the damper to the full-open position.

! CAUTION

Before you connect the supply power to the controller, complete the wiring and check all wiring connections. Short circuits or improperly connected wires can damage the controller and void any warranty.

! CAUTION

Do not exceed the controller electrical ratings. Exceeding controller electrical ratings can result in permanent damage to the controller and void any warranty.

! CAUTION

Electrostatic discharge can damage controller components. To avoid damaging the controller, use proper electrostatic discharge precautions during installation, setup, and servicing.

! CAUTION

To avoid property damage, before you apply power to the system, check all wiring connections. If you wire this terminal incorrectly, a short circuit can occur across the 24 VAC power supply on the controller. A short circuit can cause a tripped circuit breaker or a blown fuse. If you use a transformer with a built-in fuse, you may need to replace the transformer.

! CAUTION

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

! IMPORTANT

To avoid stripping the threads, do not overtighten the screw.

! IMPORTANT

If you mount the controller to the VAV box, ensure that the screws do not interfere with damper blade movement. Connectivity Guide.

! IMPORTANT

Use copper conductors only. Wire in accordance with local, national, and regional regulations.

! IMPORTANT

Only use the controller as an operating control. Design additional precautions into the control system where failure or malfunction of the controller could lead to personal injury or damage to the controlled equipment or other property. Incorporate and maintain other devices that warn of or protect against controller failure or malfunction, such as supervisory, alarm systems, safety, or limit controls.

! IMPORTANT

To reduce noise, interference, and ground loop problems, connect a 24 VAC supply power to the controller and to all other network devices so that transformer phasing is uniform across network devices. The controller does not require an earth ground connection. However, when you need to ground the secondary of the 24 VAC transformer, make only one ground connection near the transformer.

Note: When the air supply to the VAV box is below 10°C or 50°F, ensure that condensation on the VAV box, particularly on the damper shaft, does not enter the VAV controller.

Note: EasyIO FW-VAV is not intended to support third-party devices on an SA bus.

Note: Do not use the modular SA bus port and the SA bus spade lug connection at the same time. Use only one connection at a time.

Building Technologies & Solutions

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UL input, output, and communication ratings

Description	Specification		Terminal
Power supply	Nominal	24 VAC	H and G
	Minimum	20 VAC	
	Maximum	30 VAC	
	50 Hz or 60 Hz		
	Power supply	Class 2	
Universal inputs	Voltage	0 VDC to 10 VDC, Class 2	UI1 and COM to UI4 and COM
	Resistance	400 ohm to 200,000 ohm	
Digital outputs (SPST N.O. dry contact)	24 VAC, 0.5 A pilot duty, Class 2		DO1, DO2, DO3
Analog output	Voltage	0 VDC to 10 VDC	AO1 and COM to AO4 and COM
Digital outputs (SPST N.O. dry contact)	24 VAC, 0.5 A pilot duty, Class 2 sadf asdf asdf f		DO1, DO2, DO3
Analog outputs	Voltage	0 VDC to 10 VDC	AO1 and COM to AO4 and COM
EIA/RS-485	Class 2		SA Bus +,-
Ethernet	Class 2		ETH 1,
			ETH 2

Technical specifications

Component	Specification
Differential pressure sensor specifications	
Air flow sensor	0 Pa to 500 Pa per 0 in. to 2 in. of water
Controller processor and memory specifications	
Main processor	Qualcomm 560Mhz
Processor	ARM Cortex 48 Mhz
Flash memory	32 MB
RAM	128 MB
Product temperature and humidity specifications	
Dimension	230 mm or 9.1 in. x 104 mm or 4.1 in. x 44 cm or 1.7 in.
Material	UL Approved
Weight	500 g
Physical specifications	
Dimension	230 mm or 9.1 in. x 104 mm or 4.1 in. x 44 cm or 1.7 in.
Material	UL Approved
Weight	500 g
Physical specifications	
Dimension	230 mm or 9.1 in. x 104 mm or 4.1 in. x 44 cm or 1.7 in.
Material	UL Approved
Weight	500 g

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Wireless ratings	
Standard	IEEE 802.11
Band	b/g/n
Frequency range	2412 MHz to 2462 MHz
Antenna	2 dBi Dipole
Transmission power	18.98 dBm EIRP

Compliance

North America: UL 60730 Energy Management Equipment; FCC Class B, Part 15, Subpart C 15.247
CE Compliant
Taiwan 取得審驗證明之低功率射頻器材，非經核准，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。低功率射頻器材之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前述合法通信指依電信管理法規定作業之無線電通信。低功率射頻器材須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。
RED directive The Equipment named above is confirmed to comply with the requirements set out in the European Council Directive on the Approximation of the Laws of the Member States relating to 2014/53/EU (RED). The equipment passed the following test which was performed according to the following European standards: EN 300 328 V2.1.1, EN 301 489-1 V2.2.0, EN 301 489-17 V3.2.0, EN 62311:2008
UKCA Directive Electromagnetic Compatibility Regulations 2016: BS EN 55032:2015+A11:2020, BS EN IEC 61000-3-2:2019, BS EN 61000-3-2:2013+A1:2019, BS EN 55035:2017+A11:2020
FCC This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause interference. (2) This device must accept any interference, including interference that may cause undesired operation of the device. <i>L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :</i> 1) L'appareil ne doit pas produire de brouillage; 2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.
NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: — Reorient or relocate the receiving antenna. — Increase the separation between the equipment and receiver. — Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. — Consult the dealer or an experienced radio/TV technician for help. Limited by local law regulations, version for North America does not have region selection option. This radio transmitter IC: 279A-FWVAV has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device. Gain of antenna: 2 dBi max Type of antenna: 50 Ohm Dipole Le présent émetteur radio IC: 279A-FWVAV a été approuvé par Innovation, Sciences et Développement économique Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué pour tout type figurant sur la liste, sont strictement interdits pour l'exploitation de l'émetteur. Gain d'antenne: 2 dBi maximal Type d'antenne: 50 Ohm Dipole To satisfy FCC &IC RF exposure requirements, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation. To ensure compliance, operations at closer than this distance is not recommended Les antennes installées doivent être situées de façon à ce que la population ne puisse y être exposée à une distance de moins de 20 cm. Installer les antennes de façon à ce que le personnel ne puisse approcher à 20 cm ou moins de la position centrale de l'antenne.

Single point of contact

APAC	Europe	NA/SA
JOHNSON CONTROLS C/O CONTROLS PRODUCT MANAGEMENT NO. 32 CHANGJIANG RD NEW DISTRICT WUXI JIANGSU PROVINCE 214028 CHINA	JOHNSON CONTROLS VOLTAWEG 20 6101 XK ECHT THE NETHERLANDS	JOHNSON CONTROLS 507 E MICHIGAN ST MILWAUKEE WI 53202 USA