OpenBAS | BUILDING AUTOMATION SYSTEM

Description

Mircom's OpenBAS-HV-VAVFC is a terminal controller for variable air volume (VAV) boxes and fan & coil applications. It includes wireless and RS-485 wired interfaces with support for multiple protocols.

The VAVFC is designed to cover all industry standard HVAC unitary applications such as:

- Fan & Coil
- VAV Boxes
- Cooling with Reheat VAV Boxes
- Parallel Fan VAV Boxes
- Series Fan VAV Boxes
- Dual-Duct VAV Systems
- Heat Pumps
- Unit Ventilators
- Chilled Ceilings

The VAVFC has a built-in RF receiver to wirelessly receive readings from the OpenBAS-HV-WLSTH wireless temperature sensor, which reduces the cost of installation and minimizes the impact on existing partition walls.
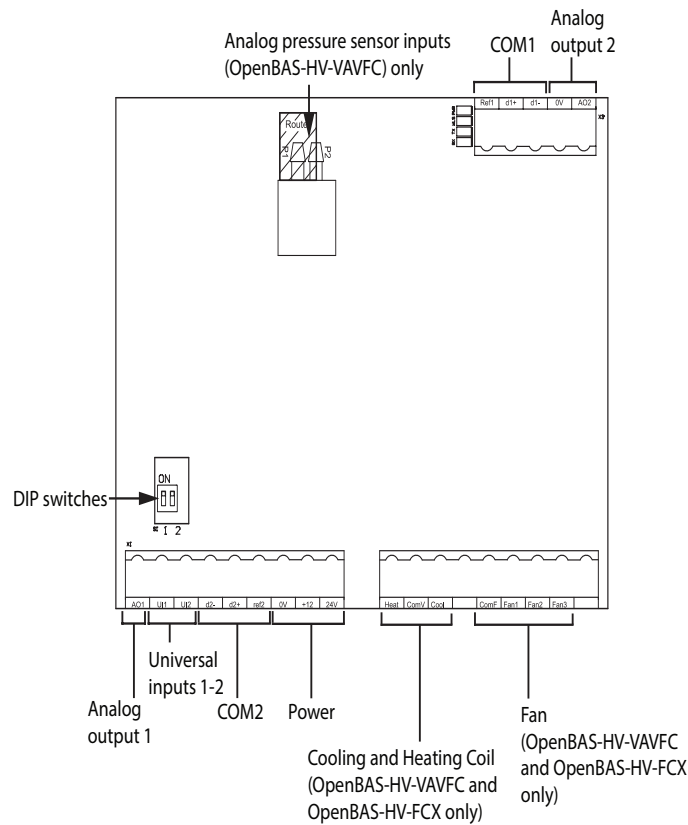
Features

- Easy configuration: Comes with various template configurations.
- Supports wireless, wired or bus driven temperature and humidity sensors.
- Perform retrofits with minimal impact on architecture and materials.
- Wireless communication permits the optimization of sensor placement, easy relocation of sensors and removes the need to open walls and extensive installation work.
- Install wireless devices on any surfaces, such as glass, wood, brick and stone.
- Modular design and add-ons to cover small, medium or large projects.
- Industry standard field bus protocols to integrate into existing BAS systems, such as: BACnet, Modbus, Optomux, N2-Open, and ASCII.
- Connects to the OpenBAS-NWK-ETH3 Ethernet Gateway for integration into IP networks and uses the most advanced features and protocols such as distributed computing, USB and Cloud storage, HTML5, JavaScript, XML, Ajax, SMS, and GSM.
- 2 Universal inputs, 2 Analog outputs, and 5 relay binary outputs rated at 5A max @125 VAC.
- DIN Rail mountable.

Some typical applications are:
- VAV thermostats
- Fan & Coil thermostats
- Water source heat pumps
- Temperature and humidity logging

CATALOG NUMBER 6305

Wiring Diagram

Analog pressure sensor inputs (OpenBAS-HV-VAVFC) only

COM1

Analog output 2

DIP switches

Analog output 1

Universal inputs 1-2

COM2

Power

Cooling and Heating Coil (OpenBAS-HV-VAVFC and OpenBAS-HV-FCX only)

Fan (OpenBAS-HV-VAVFC and OpenBAS-HV-FCX only)

Technical Information

Standards	UL 60730-1 FCC Part 15 / ICES-003, Class "B"		
Input:	12 VDC, 153 mA max., 24 VAC, 50/60 Hz, 162 mA max., 24 VDC, 75 mA max.		
Output:	The +12 terminal supplies 12 Vdc, 2 mA max. (when 24V powered) only to feed universal or digital inputs. No externals loads are allowed		
Power Supply Protection:	Resettable fuse 0.30 A		
Optional Battery:	Voltage, Current	Load	Form
	125 VAC, 5 A	Resistive	NO
	125 VAC, 3 A	General Use	NO
2 Analog Outputs:	0-10 VDC, 10 mA		
2 Universal Inputs:	**Analog Inputs:** • 0-10 VDC • 0-5 VDC • 0.5-4.5 VDC ratiometric • 0-20 mA • 4-20 mA • 1000 Ω temperature sensor **Digital (binary) inputs:** • For dry contacts being fed by 12 VDC **Pulse counters:** • Active PNP 12 VDC • For dry contacts being fed by 12 VDC		

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NOT TO BE USED FOR INSTALLATION PURPOSES.

2 Analog Pressure Sensor Inputs (OpenBAS-HVVAVFC only):	• 10 kPa (0 to 1.45 psi) max.

Wireless Characteristics (Open-BAS-HV-VAVFC only):	2 RS-485 ports supporting the following protocols:
	COM1
	   • BACnet/MSTP
	   • Modbus/RTU-Slave
	   • Modbus/RTU-Master
	   • N2-Open
	   • Optomux
	   • ASCII
	COM2
	   • N2/O22-master

Physical Characteristics:	• Weight: 160 g (5.6 oz.) • Enclosure dimensions: 106 mm x 90 mm x 58 mm (4 3/16" x 3 35/64" x 2 17/64")
Ambient Conditions:	• Operating temperature: 0° to 40°C (32° to 104°F), 10% to 90% RH noncondensing • Indoor Use Only
Purpose of Control:	Operating Control, HVAC Control
Construction of Control:	Independently Mounted, for Panel Mount
Action Type and additional features:	Type 1.C
Pollution Degree:	2
Software Class:	Class A
Rated Impulse Voltage:	• 2500 V

Ordering Information

Model	Description
OpenBAS-HV-VAVFC	Variable Air Volume Box, and Fan & Coil Controller
OpenBAS-HV-FCX	Fan & Coil Controller