



**VAV WIFI BACnet/IP & Sedona Controller**

Solidyne's SAM-V is the latest generation VAV (Variable Air Volume) Controllers leveraging BACnet/IP communications standard. Offering WIFI and Ethernet connectivity, along with Sedona wiresheet programming interface.

With it's on-board Flow (CFM) Sensor & integrated actuator, (4) universal inputs, (1) digital inputs, (4) Triac outputs and (2) analog outputs built-in, the SAM can handle any VAV application with ease.

Armed with a 1Ghz ARM Cortex-A8 processor, 512mb of RAM and 4GB or on-board memory...The SAM family of controllers are the most powerful in their class. The IP connectivity of the SAM family of controllers allows them to pull RSS/XML weather data feeds from online sources for real time weather, reducing costs of outdoor air temp/humidity sensors and improving accuracy.

**Specifications**

**Power Requirements**

Input Voltage: 23 to 28 VAC 50/60 Hz  
 Consumption: 12 VA (with USB WIFI module)  
 Input Voltage Fuse: Resettable fuse rated at 1.1A at 24VAC

**Inputs/Outputs**

**Universal Inputs:**

Four (4) Universal Inputs  
 Can be independently configured for thermistor\*, digital, 0-10vdc or 0-20mA, and RAW.

\* Thermistor Inputs are 3k, 10k (type 3) thermistor

**Digital Inputs:**

One (1) digital inputs for reading status or pulse meters (dry contact only)

**Analog Outputs:**

Two (2) 0-10vdc Analog Outputs\*.

\* Can drive down to 10Kohm loads at 10vdc

**Triac Outputs:**

Four (4) Triac Outputs (24VAC/1 Amp only)

**Specifications cont'd:**

**On-Board Flow Sensor (CFM)**

One (1) 0-2"wc (0-500Pa) Differential pressure transducer

**Integrated Actuator**

Belimo LMB series actuators can be ordered

**Operating Environment**

Temperature: 32 to 158 F (0 to 70 C) \*  
 Humidity: 20-90% Relative, noncondensing \*\*

\* Storage Temperature: -10 to 158 F (-23 to 70 C)

\*\* Storage Humidity: 0-95% Relative, noncondensing

**Network Communication**

Method: Ethernet or WIFI  
 Protocols: BACnet/IP, Sedona, SMTP, NTP, SSH, SFTP  
 WIFI Standards: 802.11 a/b/g/n

**Physical Dimensions**

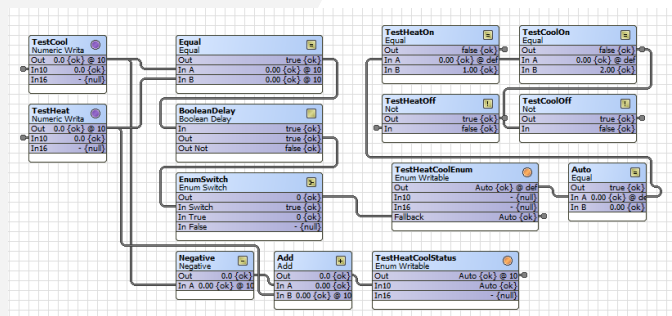
Height: 70 mm (2.75 in)  
 Width: 78 mm (3.0 in)  
 Length: 160 mm (6.3 in)  
 Mounting Holes: 148.5 mm (5.85 in) Center to Center  
 Weight: 1.2 lb

**Agency Approvals**

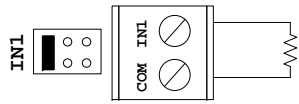
Listed Device: UL Listed under E76576 24G9



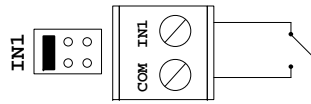
Pending: BACnet Testing Laboratories (BTL)



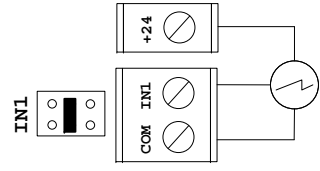
WIRING EXAMPLES:



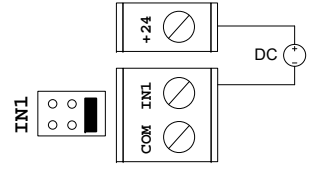
THERMISTOR



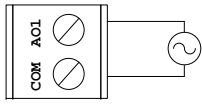
DIGITAL INPUT



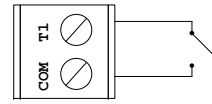
0-10V INPUT



0-20MA INPUT

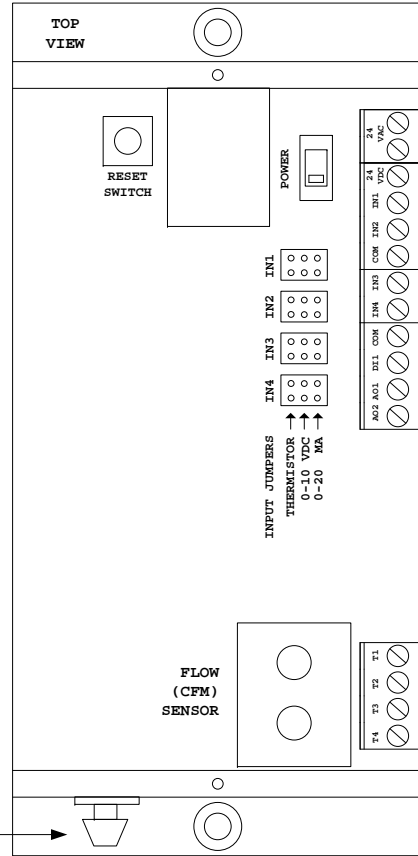
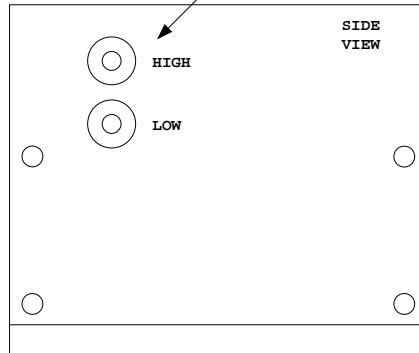


ANALOG OUTPUT



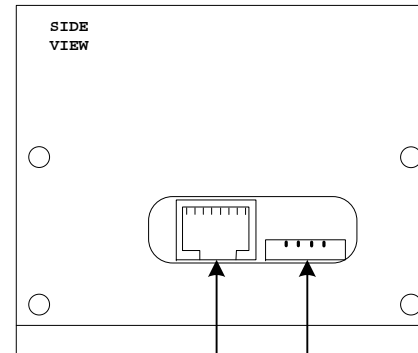
TRIAC OUTPUT  
(24VAC ONLY)

FLOW (CFM) SENSOR  
PITOT TUBE PORTS



- 1 24VAC HOT
- 2 24VAC NEUTRAL
- 3 +24 VDC OUTPUT (500mA)
- 4 INPUT 1 (THERMISTOR, 0-10VDC, 0-20mA)
- 5 INPUT 2 (THERMISTOR, 0-10VDC, 0-20mA)
- 6 I/O COMMON
- 7 INPUT 3 (THERMISTOR, 0-10VDC, 0-20mA)
- 8 INPUT 4 (THERMISTOR, 0-10VDC, 0-20mA)
- 9 I/O COMMON
- 10 DIGITAL INPUT 1 (DRY CONTACT, PULSE)
- 11 ANALOG OUTPUT 1 (0-10VDC)
- 12 ANALOG OUTPUT 2 (0-10VDC)

- 21 TRIAC OUTPUT 1 (24VAC ONLY)
- 22 TRIAC OUTPUT 2 (24VAC ONLY)
- 23 TRIAC OUTPUT 3 (24VAC ONLY)
- 24 TRIAC OUTPUT 4 (24VAC ONLY)



ETHERNET PORT      USB PORT (WIFI)