



Description

- ▶ The BACzone is a fully programmable digital VAV zone controller
- ▶ It supports BACnet MS/TP
- ▶ It has 4 AI/BI's, 2 AO's & 4 BO's c/w local HOA switches for the outputs
- ▶ It uses a pre-calibrated, precise digital MEMS Omron flow through airflow sensor
- ▶ It is BTL certified as a B-BC (BACnet Building Controller)
- ▶ It supports up to 3 Tzone room sensor when used with the Strato Zoning System and up to 8 Tzone room sensor when used with the Strato Enterprise Solution
- ▶ To order use part number: BZ424

Application

This controller is designed to facilitate control and management of various VAV equipment typically used in the HVAC industry. It allows powerful yet flexible solutions that can be tailored and sized according to any project needs. Single or dual duct, with or without fan

Technical specifications

Power supply:

24 Vac/Vdc \pm 15%
2.0A replaceable fuse
D.E.L. power light indicator

Current consumption:

5 VA controller only
Up to 38.6 VA with all 4 BO's @ 0.35A each

Inputs:

- 4 x AI/BI's universal inputs
- Thermistor 10K Ω (type 2 or 3)
- Dry contact, 500 ms minimum (On-Off)
- Voltage 0 - 10 Vdc (Input impedance of 100 K Ω)
- Current 0 - 20 mA (internal resistance of 162 Ω)
- Resolution: 12 Bits (4096 segments)

Outputs:

- 4 x BO's Solid State
- 10 to 30Vac/Vdc, 0.35A max.,
- Sink or source
- Built-in overcurrent protection
- Thermal protection with automatic reset
- Solid State BO's can be used as pulse outputs.

2 x AO's

- Voltage 0 - 10 Vdc linear

Internal actuator outputs

Outputs:
2 BO Solid State (Open/Close)
1 extra AO for analog actuators

Floating actuator supplied

Belimo LMB24-3-T-ZSST
45 in/lb 5 Nm

Air Flow Sensor

MEMS Omron D6F-PH
1" / 250 Pa range with rapid response
Resolution: 12 Bits (4096 segments)
5/32" tubes required for airflow probe

Real-time clock (RTC):

Built in with one-week capacitor backup once charged

Sound Buzzer:

Built in, can be used by the application program

Trend logs:

Automatic for all declared BACnet objects
Limited only by the storage capacity of the server when connected to a Strato Edge Server

Microprocessor:

STM32 (ARM CortexTM M3)
32 bits, 72MHz

Memory:

Flash: 768 KB non-volatile for the application program
RAM: 96 KB

Number of BACnet objects:

Maximum 100 items

RS485 BACnet MS/TP communication speed:

9600, 19200, 38400, 76800 Bps

Controller addressing:

Addressing via DIP switch

External connections:

Mini USB2 connector allows local access to the MS/TP network
Requires a Strato Automation USB-485 cable adapter

Tzone wall interface:

Up to 1 or up to 8 Tzone per BACzone controller based on solution used
« daisy chain » wiring on local RS-485 port

Programming:

Fully programmable using the Strato Workstation Client software

Communication protocols:

BACnet MS/TP

Dimensions:

4.9" x 8.5" x 2.5"
123 mm X 215 mm X 63 mm

Max. wire size:

16 awg

Stocking temperature:

-30 °C to 50 °C / -22 °F to 122 °F

Operating conditions:

-25 °C to 45 °C / -13 °F to 113 °F
10% to 90% H.R. without condensation

Weight:

744 g / 1.5 lb

Mounting type:

Standard Belimo mounting hardware
Directly on VAV shaft and duct

Warranty:

1 year

Enclosure:

Black color, ABS material UL94-5V
Material FR/ABS

Certifications:

UL 916 Energy Management Equipment
BTL listed: B-BC, BACnet Building Controller

