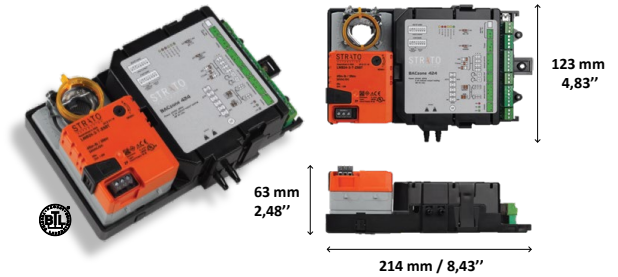


BZ424

BACzone424

VAV Zone controller
Tzone compatible



DESCRIPTION

- ▶ BACzone is an incredibly powerful variable air volume box controller. It is entirely programmable and offers 10 physical control points that are completely free for all uses (4 analog inputs, 2 analog outputs, 4 binary triac outputs).
- ▶ For improved control, BACzone is equipped with an advanced technology velocity transmitter that scales two combined readings. The controller provides a very rapid response to changes at low flow levels, where most applications for this type of controller are used.
- ▶ BACzone accepts Tzone digital temperature sensors, a Strato Automation product it is compatible with on the standard 485 network protocol (up to 8 Tzones per BACzone).

APPLICATION

The controller fulfils all requirements for VAV (variable air volume) applications such as:

- Cooling VAV boxes, with or without heating
- Single and dual duct VAV boxes, with or without fans
- Multiple energy efficiency applications and concepts (CO2 readout, motion detector, power limitation...)

TECHNICAL SPECIFICATIONS

Max wire size:

16 awg. twisted pair cable

Supply voltage:

24 VCA : ±15% 50/60 Hz Class 2

Protection : replaceable 2.0A fuse
LED indicator

Current consumption:

5 VA

External inputs:

4 universal,

T : Thermistor 10 kΩ (type 2 or 3)

Dry contact, 500 ms minimum (On/Off)

V : Voltage 0 - 10 VCC

I : Courant 0 - 20 mA

Resolution : 12 Bits (4096 segments)

Velocity transmitter :

Omron

(MEMS flow sensor)

0 to 1" H2O / 0 to 248.8 Pa

Note: Rapid response to changes at low flow rates.

Resolution : 12 Bits (4096 segments)

Tubes: 5/32" interior diameter required

External outputs:

Binary

4 binary triac outputs, 10 - 30 VCA, 0.350 A max., "sink" or "source" with overvoltage protection (thermal protection with automatic reset)

Note : Binary outputs can also be used as pulse outputs.

Analog

2 analog outputs, voltage 0 - 10 VCC linear

Resolution : 12 Bits (4096 segments)

Internal outputs:

Binary

2 binary outputs for "floating" actuator (Open/Close)

Analog

1 analogue output for modulating actuator (0 - 10 VCC)

"Floating" Belimo actuator:

Model LMB24-3-T-ZSST, 45 pound-inch / 5Nm, 24 VCA / CC

Note : Sound level under 35db

Real-time clock (RTC): yes

Buzzer: yes, by programming command

Trend logs: Automatic on all current BACnet objects. Limited only by the storage capacity of the server.

Microprocessor: STM32 (ARM Cortex™ M3)
32 bits, 72 MHz

Memory: 768 kb Flash non volatile, 96 KB RAM

Number of BACnet objects: 120 maximum
Note : Maximum capacity is relational and varies based on type(s) of objects created.

Tzone wall interface: Up to 8 Tzones per BACzone controller, "daisy chain" configuration on RS-485 protocol

Baud rate (BACnet MS/TP):

9600, 19200, 38400, 76800, 115200

External port: mini USB, to use for initial configuration of the controller (Config MS/TP software)

Controller addressing: MSTP Addressing via DIP switch

Fault protection: A capacitor maintains the time in case of a power-out, for approximately 2 weeks.

Programming: Programming in C language using BACnetClient (STRATO Automation) interface software

Communication protocol: BACnet MS/TP
Size: 122.7 mm (4.83") X 214.33 mm (8.43") X 63.0 mm (2.48")

Storage/transport temperature: 30 °C to 50 °C / -22 °F to 122 °F

Operating temperature: 0 °C to 50 °C / 32 °F to 122 °F

Relative humidity: 10 to 90% RH

Weight: 744 g / 1.5 lb

Mounting:

Installation on variable air volume box (ventilation duct)

Guarantee: 1 year

Certification:

UL (CAN & EU)

UL 916 Energy management equipment (pending)
BTL: B-ASC, BACnet Application Specific Controller

Housing: Type UL94-5V, Colour black, material FR/ABS