

## SZ1025a

VAV Box Controller



## Description

The SZ1025a is a microprocessor-based controller designed for VAV terminal unit applications.

### The SZ1025a features:

- Stand-alone or network operation
- Built-in velocity pressure sensor with K-factor correction
- Pressure dependent or pressure independent operation
- Capable of controlling series or parallel fan-powered boxes
- Offers two independent modulating outputs for a damper and reheat valve
- Interface available for tri-state actuator motors
- Separate heating and cooling minimum and maximum CFM settings
- Two independent dry contact outputs
- Remote setpoint capability
- Supply air sensor input
- Filter monitor input
- External time clock input

## Specifications

### General

**Accuracy:** +/- 0.5%

**Programming:** EIA RS485 interface

**Communications:** RS485, half duplex

**Memory backup:** Non-volatile EEPROM, no battery required

### Environmental

**Operating temperature:** 32 to 131°F (0 to 55°C)

**Operating humidity:** 0 to 100% RH, non-condensing

**Storage temperature:** 14 to 140°F (-10 to 60°C)

### Electrical

**Supply voltage:** 24 VAC

**Inputs:** Two platinum RTDs, two digital (dry contact)

Range: Room Temp: 40 to 90°F

Supply Air Temp: 50 to 150°F

**Outputs:** Two 4 to 20 mA analog, 2 digital (SPST dry contact, 24 VAC @ 2 A), QE25: four triacs (24 VAC @ .5 A)

**Max. load resistance (analog output):** 600 Ω

**Common mode rejection:** 100 db @ 60 Hz

**Power consumption:** 6 VA max.

Specifications subject to change without notice.

# Specification Suggestions

VAV terminal unit control shall be provided by the contractor as required to perform required specified operation sequences. Control for each variable air volume box shall include a microprocessor-based controller, control transformer, room temperature sensor, damper actuator and differential pressure sensor.

Air volume shall be controlled to within 5% at any point from scheduled minimum to maximum flow. In the event of power loss, all programmed operating parameters shall be unaffected without the use of battery backup. All control functions shall continue in the event of communications failure.

Communications ports shall be provided at the room sensor and at each controller, and shall be capable of addressing any controller on the network. Communications shall be in accordance with EIA RS485 standards. All firmware communications protocol and command codes shall be published, open and non-proprietary.

VAV controllers shall be model SZ1025a with model TS Series platinum RTD sensors as manufactured by TCS/Basys Controls.

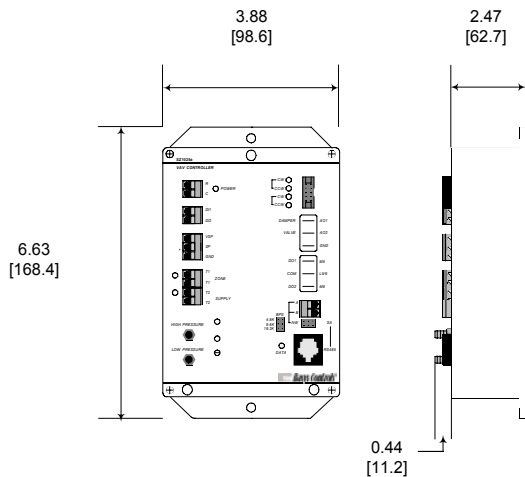
# Ordering Information

Part No.	Description
SZ1025a	Microprocessor-based VAV controller
<b>SZ1025a Accessories</b>	
QE25	Tri-state wiring transducer
TS2000	Remote sensor, room mount
TS3000	Remote sensor, room mount, decorator style
TS2023a	Room mount temperature sensor with override and setpoint adjustment
TS1002	Remote sensor, duct mount
PR Series	Encased relays
PT Series	Control transformers
QD1010	RS232 to RS485 communications converter (required for programming)
or	
QD2020	Site communication center (required for programming)
REVPRO	Revelation Professional software (required for programming)

# Dimensions

Note: inches [mm]

SZ1025a



QE25

