



## Overview

Zone Control (ZC) is a UL Listed distributed lighting controller in a compact junction box mounted package. ZC may be scheduled from any BACnet BAS, and it is compatible with all low voltage override switches, occupancy sensors, and light level sensors. ZC is suited for new or existing buildings, and may be scaled from basic to advanced control sequences; including daylight harvesting (DLH), load shedding, equipment optimization, and trending.

## Features

- UL Listed and Plenum Rated
- BACnet MS/TP communication to BAS network
- Line and low voltage compartment separation
- Switching and Dimming (DLH / Presets) models available
- Sub network for Satellite and Capacitive Touch Stations (CTS)
- Standard and Extended models available:
  - Standard - up to 8 relays / channels with Satellite
  - Extended - up to 16 relays / channels with Satellite
- Micro-USB and Bluetooth (optional) ports for configuration
- Monitor and measure equipment performance:
  - Track lamp, ballast, and relay life
  - Track schedule, occupancy sensor, manual control, and daylight harvest savings

## General Specifications

Construction: 20ga steel white powder coat finish  
 Dimensions: 5.063"(129mm)H x 10.00"(254mm)W x 2.50"(64mm)D  
 Weight: 3lbs (1.36kg)  
 Mounting: 4" or 4 11/16" junction box (Check local code requirements)  
 Operating Environment: 0-140°F(-18-60°C), 10-90% RH, non-condensing  
 Type 1 (dry / indoor environment)  
 Plenum Rated

## Certifications

UL Listed, UL916 Standard for Energy Management Equipment, US/Canada  
 FCC Part 15  
 CEC Title 24  
 Electronics meet or exceed IEC Level 3

## Warranty

Two (2) year limited manufacturer warranty from date of shipment (extended warranty optional).

## Line Voltage Specifications (FI-1 Board)

Power Feed: 120, 230, or 277VAC, 50/60hz, +/- 10%, single phase, 20A circuit (powers ZC and feeds relay outputs)  
 ZC Maximum Load Rating: 20A

Relay Maximum Load Rating: 20A tungsten @ 120VAC, 20A ballast @ 277VAC, 20A resistive @ 277VAC, 1.5HP @ 120VAC  
 Relay: 2 mechanically latching relays with manual override lever  
 Relay Status: Opto-isolated Power Tap (PT) on load side of relay contacts  
 Line Voltage Input: 2 switch inputs, must utilize same ZC power feed  
 Line Voltage Input Type: Configurable for maintained or state-change  
 Wire Requirement: 14-10AWG (Solid or Stranded copper wire only)

## Low Voltage Specifications (FI-2 Board)

Universal Input (UI) and Satellite / Station Network Power Out: 24VDC, 200mA total  
 Universal Input: 6 two-wire inputs  
 Universal Input Software Configuration:  
   Digital Input (DI)  
   Analog Input (AI): 0-5VDC, 0-10VDC, or 4-20mA  
 Universal Input Wire Requirement / Maximum Length: 18AWG (Solid or Stranded) / 500'(152m)  
 Analog Output: 2 outputs  
 Analog Output Compatibility: 0-10VDC dimming ballasts (see *Ballast Compatibility Data Sheet* for details)  
 Analog Output Sink / Source: 100mA / 5mA per output  
 Analog Output Wire Requirement / Maximum Length: 18AWG (Solid or Stranded) / 1,000' (304m)

## BAS Network Specifications

Protocol: BACnet MS/TP  
 Baud Rate: DIP switch selectable 9.6K, 19.2K, 38.4K, 76.8K, or 115.2K  
 Device Profile: BACnet Advance Application Controller (AAC)  
 Address Range: 1 – 99 selectable with rotary dials  
 Unit Load: 1/8 unit load  
 Topology: RS-485, half duplex, daisy chain wiring  
 Wire Requirement / Maximum Length: CL3P, 22AWG, 2 conductor, shielded, low cap / 4000'(1216m)  
 Points: See *PIC Statement*

## Satellite / Station Network Specifications

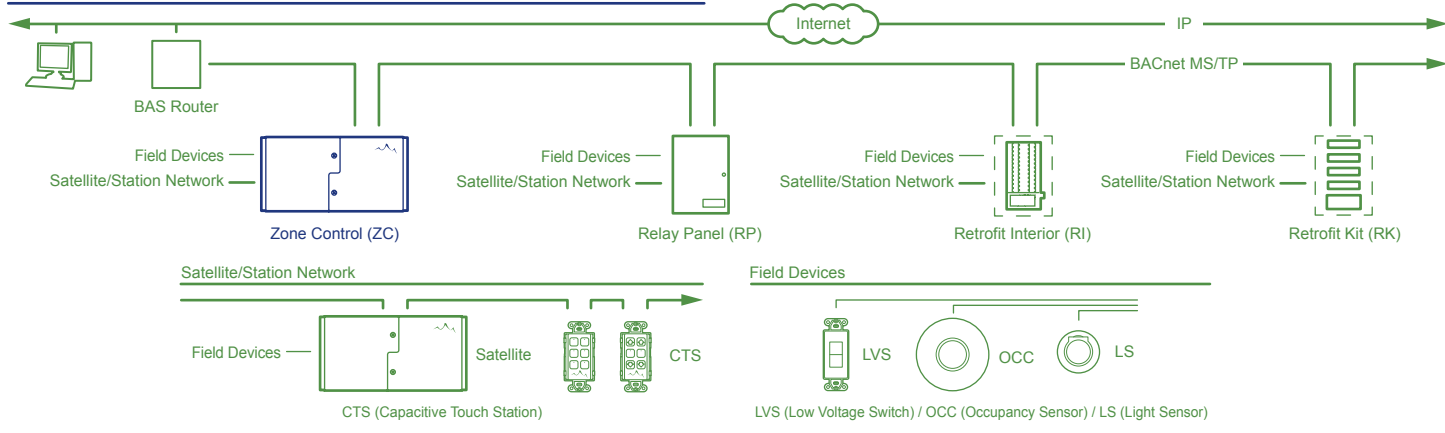
Compatible with CTS and Satellite devices. See data sheet for details.

## Firmware Specifications (Controller Board)

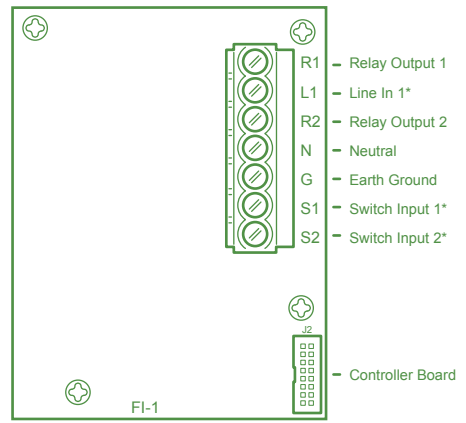
Platform: Aperio Open Control Platform  
 Time Clock: Real-time clock with BACnet time sync  
 Schedule: BACnet Schedule, Monday – Sunday, Holidays, and Exceptions  
 Non-Volatile Memory: 16MB total, 2MB for trend data (15min trend requires 2K per day)  
 RAM: 2MB total, data stored in non-volatile memory upon power loss  
 Configuration: Tech Kit 2.0 (see data sheet for details)  
 Configuration Connection: Micro-B USB or Bluetooth Wireless

# Zone Control

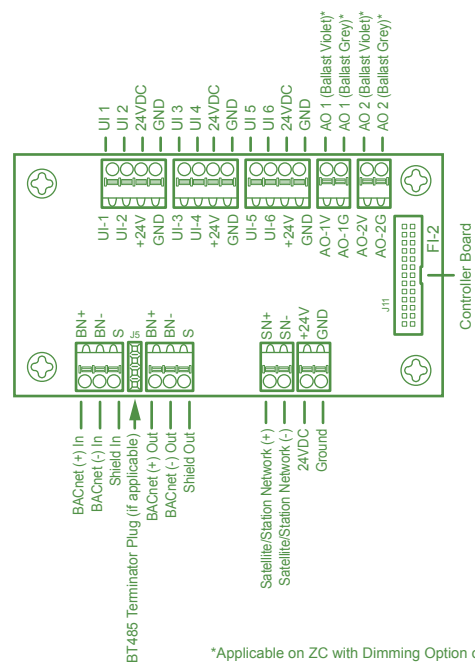
## General Architecture



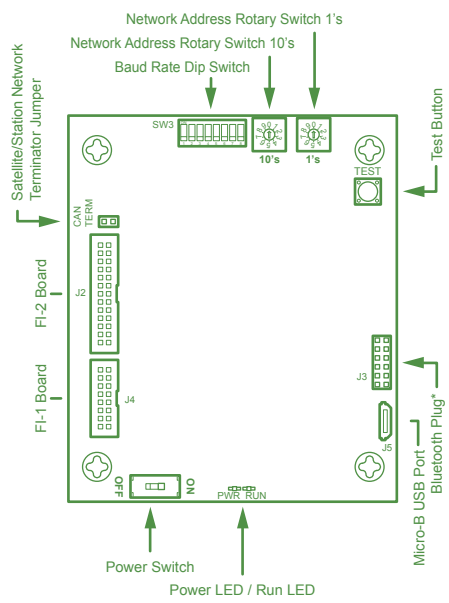
## FI-1 Board Terminations



## FI-2 Board Terminations



## Controller Board Terminations



\*FI-1 terminations are compatible with 120, 230, or 277VAC single phase circuits. Do not mix voltages or phase on the same unit.

\*Applicable on ZC with Dimming Option only.

\*Applicable on ZC with Bluetooth Wireless Option only.

## Ordering Information



<b>Wireless Options</b> XX = 00 No Wireless BT Bluetooth
<b>Power Options</b> XX = 00 120, 230, 277VAC
<b>Controller Board Options</b> XX = SS Switching Standard: Maximum 8 Relays / 3 Satellite / 6 CTS DS Dimming Standard: DLH, Maximum 8 Relays / 3 Satellite / 6 CTS / 6 Preset DE Dimming Extended: DLH, Maximum 16 Relays / 7 Satellite / 12 CTS / 12 Preset