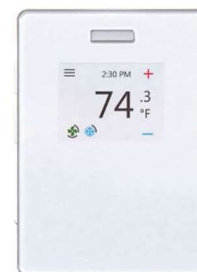


# OS214-EH

## BACwall Electric Heat

Configurable Wall  
BACnet MS/TP Controller



## Description

- Configurable wall or panel mount controller for electric duct heater applications
- Native BACnet MSTP enabled and ready with BTL certified as a B-ASC
- Room and or discharge air control application
- Full proportional built single stage control
- 0-10 Vdc, 10 Vdc pulsed or 24 Vac pulsed control of single stage modulating output
- Local interface for user setpoint control & configuration. Configuration can also be made through BACnet

## Application

This controller is designed to facilitate the control and management of custom electric resistive duct heater equipment typically used in the HVAC industry. It allows powerful solutions that can be configured according to any project needs. It features an I/O set capable of meeting single stage modulating electric heaters applications such as modulating small zone heaters, room and or discharge air control for zone heating system control.

## Specifications

### Power supply:

- 24 VAC/VDC  $\pm$  15%; Class 2

### Current consumption:

- 1.5 VA controller only

### Communication protocols:

- BACnet MS/TP
- BTL listed: B-ASC, BACnet Application Specific Controller
- Baud 9600, 19200, 38400, 76800 Bps (76800 default)
- Addressing: Keypad configuration
- Mini USB2 MS/TP network access (Strato Automation USB-485 cable adapter)

### Hardware

- Microprocessor: STM32 (ARM Cortex™ M3) 32 bits,
- CPU Speed: 72MHz
- Memory: 768 KB non-volatile Flash
- RAM: 96 KB RAM
- Real-time clock (RTC): Built-in capacitor (one-week backup)

### Backlight display / LCD

- Multi-HVAC system symbols, time display, four-segment main numeric display with one decimal

### Inputs:

2 Available universal Inputs (AI/BI)

- Remote room temperature Thermistor input 10K $\Omega$  (type 2 or 3)
- Remote supply temperature Thermistor input 10K $\Omega$  (type 2 or 3)
- Resolution: 12 Bits (4096 segments)

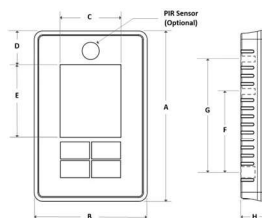
### Modulating Outputs:

Vernier or single staging control

- 1 x 24 Vac pulsed output for 24 Vac powered SSR relays
- 1 x 10 Vdc pulsed output for 3-32 Vdc powered SSR relays 20mA
- 1 x Voltage 0-10 Vdc linear output for a proportional SCR
- All 3 outputs operate in parallel as needed for the controlled output

### Mechanical:

- Dimensions: B 3.25" x A 4.88" x 0.8"  
B 83 mm x A 124 mm x 20 mm
- Stocking temperature:  
-30 °C to 50 °C / -22 °F to 122 °F
- Operating conditions:  
-25 °C to 50 °C / -13 °F to 113 °F  
10% to 90% H.R. without condensation
- Weight: 120 g / 0.25 lb
- Mounting type:  
Standard 2" x 4" electrical junction box
- Enclosure: White color, ABS material UL94VO



Warranty: 1 year

### Certifications:

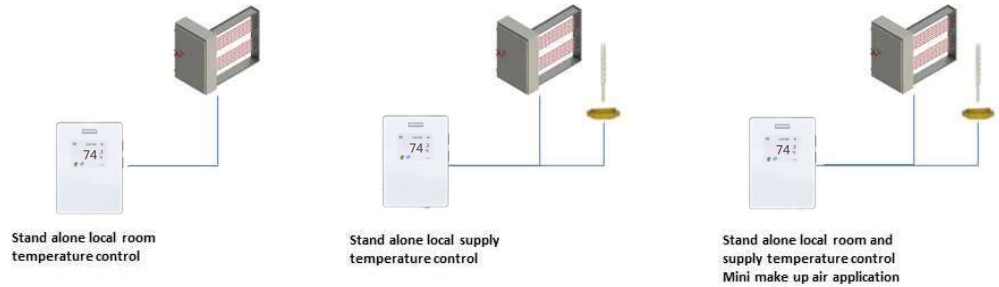
- UL 916 Energy Management Equipment
- BTL listed: B-ASC, BACnet Application Specific Controller

## • Control Modes Available

Control modes define what is controlling the heater. This allows for maximum flexibility out of a single heater controller for most used cases application scenarios.

The application logic of the heater type, size, capacity and required functions is detailed below in the application examples section

**Stand alone & BACnet applications. All functions are fully integrated into the controller**



## • Wiring

### OS214-EH

