

# BAC-7303 and BAC-7303C Advanced Application Controllers for Fan Coil Units

## Description and application

The BAC-7303 and BAC-7303C are native BACnet, fully programmable, controllers designed for fan coil units. Use these versatile controllers in stand-alone environments or networked to other BACnet devices. As part of a complete facilities management system, the BAC-7303/7303C controllers provide precise monitoring and control of connected points.

- ◆ BACnet MS/TP compliant
- ◆ Automatically assigns the MAC address and the device instance
- ◆ Supplied with programming sequences for fan coil units
- ◆ Easy to install, simple to configure, and intuitive to program
- ◆ Controls room temperature, humidity, fans, monitors refrigeration, lighting, and other building automation functions.

## Specifications

### Inputs

- ◆ 4 universal inputs each of which is programmable as an analog, binary or accumulator object; accumulators limited to three in one controller
- ◆ Standard units of measure
- ◆ Pull-up resistors for switch contacts and other unpowered equipment; switch selects none or 10K ohms
- ◆ Removable screw terminal block, wire size 14–22 AWG
- ◆ 10-bit analog-to-digital conversion
- ◆ Pulse counting to 16 Hz
- ◆ 0–5 volts DC analog input range
- ◆ Overvoltage input protection
- ◆ Compatible with KMD-1160/1180 series NetSensors

### Outputs, Triac

- ◆ 1 Optically isolated triac output
- ◆ 1 Dual stage optically isolated triac output
- ◆ Maximum switching 30 volts AC at 1 ampere
- ◆ Removable screw terminal block, wire size 14–22 AWG



Still ... Made in the U.S.A.

### Outputs, Universal

- ◆ 2 universal outputs each of which is programmable as an analog or digital object.
- ◆ Standard and custom units of measure
- ◆ 0–10 volts DC for analog objects
- ◆ 0–12 volts DC for binary objects
- ◆ Output current limited to 100 mA per output (outputs are short protected)

### Supplied application programs

KMC Controls supplies the BAC-7303 controllers with programming sequences for fan coil units:

- ◆ Proportional fan control
- ◆ Proportional chilled water valve
- ◆ 1 or 2 stage heat
- ◆ Optional humidity control

### Programmable features

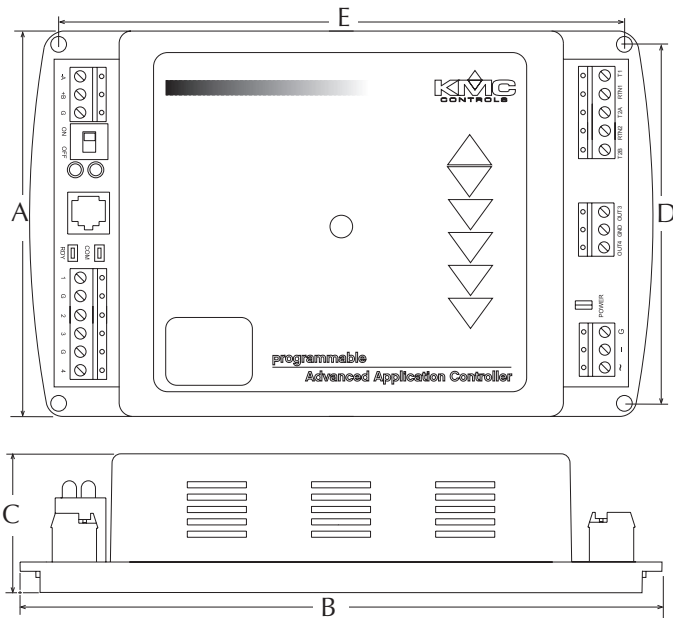
- ◆ 10 Control Basic program areas
- ◆ 40 analog and 40 binary value objects
- ◆ 4 PID loop objects
- ◆ Real time clock with power backup for 72 hours (BAC-7303C only)
- ◆ See PIC statement for supported BACnet objects

### Schedules

- ◆ 8 Schedule objects
- ◆ 3 Calendar objects

## Specifications (continued)

### Dimensions



| A        | B        | C        | D      | E        |
|----------|----------|----------|--------|----------|
| 4.36 in. | 6.79 in. | 1.42 in. | 4.00   | 6.00 in. |
| 111 mm   | 172 mm   | 36 mm    | 102 mm | 152 mm   |

### Alarms and events

- ◆ Supports intrinsic reporting
- ◆ 8 Notification class objects

### Trends

- ◆ 8 Trend objects

### Memory

- ◆ Programs and program parameters are stored in nonvolatile memory.
- ◆ Automatically restarts after power failure.

### Communications

- ◆ MS/TP operating up to 76.8 kilobaud with automatic baud detection.
- ◆ Automatically assigns MAC addresses and device instance numbers
- ◆ NetSensor compatible through modular jack

## Installation

### Supply voltage

24 volts AC (-15%, +20%),  
50-60 Hz, 8 VA minimum,  
15 VA maximum load, Class  
2 only, non-supervised (all  
circuits, including supply  
voltage, are power limited  
circuits)

### Weight

3.5 ounces (99 grams)

### Case material

Green and black flame  
retardant plastic

### Environmental limits

Operating 32° to 120° F (0° to 49° C)  
Shipping -40° to 140° F (-40° to 60° C)  
Humidity 0-95% relative humidity  
(non-condensing)

### Regulatory

- ◆ UL 916 Energy Management Equipment
- ◆ FCC Class A, Part 15, Subpart B
- ◆ BACnet Testing Laboratory listed
- ◆ SASO PCP Registration KSA R-103263

### Software compatibility

Requires the current version of BACstage  
or TotalControl for full configuration and  
programming features.

## Accessories

### Power transformer

XEE-6111-40 Single-hub 120 volt transformer  
XEE-6112-40 Dual-hub 120 volt transformer

## Models

BAC-7303C BACnet controller with real-time  
clock  
BAC-7303 BACnet controller without real-time  
clock

MS/TP automatic MAC addressing is protected  
under United States Patent Number 7,987,257.

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