

BAC-7302 and BAC-7302C Advanced Application Controllers for Roof Top Units

Description and application

The BAC-7302 and BAC-7302C are native BACnet, fully programmable, controllers designed for roof top unit applications. Use these versatile controllers in stand-alone environments or networked to other BACnet devices. As part of a complete facilities management system, the BAC-7302 controllers provide precise monitoring and control of connected points.

- ◆ BACnet MS/TP compliant
- ◆ Automatically assigns the MAC address and the device instance
- ◆ Pull-up resistors for switch contacts and other unpowered equipment. Switch selects none or 10K ohms.
- ◆ Supplied with programming sequences for roof top units
- ◆ Easy to install, simple to configure, and intuitive to program
- ◆ Controls fans, 2-stage heating, 2-stage cooling and an economizer

Specifications

Inputs

- ◆ 4 universal inputs each of which is programmable as an analog, binary or accumulator objects; 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
- ◆ 2 Dual-Stage triac
- ◆ Maximum switching 30 volts AC at 1 ampere
- ◆ Removable screw terminal block, wire size 14-22 AWG



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Outputs, Universal

- ◆ 1 Universal output
- ◆ 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)
- ◆ Removable screw terminal block, wire size 14-22 AWG

Supplied application programs

KMC Controls supplies the BAC-7302 and BAC-7302C with programming sequences for roof top units:

- ◆ Fan operation
- ◆ 2-Stage Heating
- ◆ 2-Stage Cooling
- ◆ Economizer

Programmable features

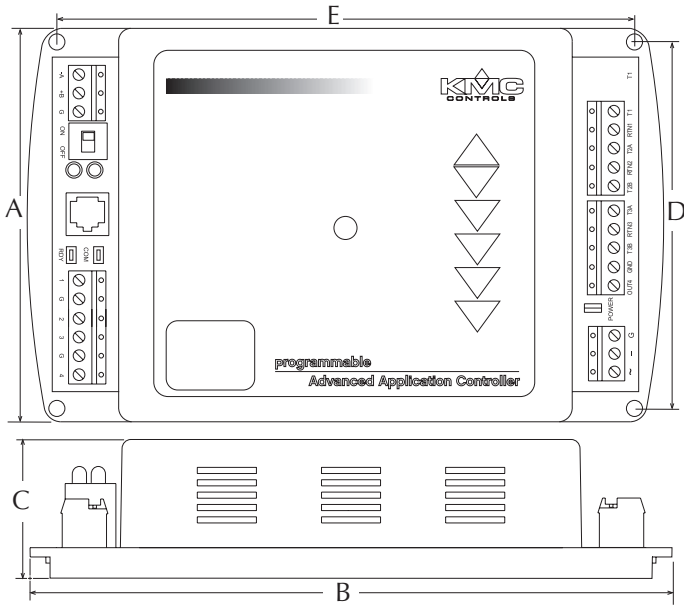
- ◆ 10 Control Basic program areas
- ◆ 40 analog and 40 binary value objects
- ◆ 4 PID loop objects
- ◆ Real time clock with power backup for 72 hours (BAC-7302C only)
- ◆ See PIC statement for supported BACnet objects

Schedules

- ◆ 8 Schedule objects
- ◆ 3 Calendar object

Specifications (continued)

Dimensions



A	B	C	D	E
4.36 in.	6.79 in.	1.42 in.	4.00 in.	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 connector

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

Regulatory

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

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)

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-7302C	BACnet controller with real-time clock
BAC-7302	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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