

### Description and application

The BAC-5801 and BAC-5802 are native BACnet, fully programmable, direct digital controllers. Use these versatile general purpose controllers in stand-alone environments or networked to other BACnet devices. As part of a complete facilities management system, the BAC-5801 and BAC-5802 controllers provide precise monitoring and control of connected points.

- ◆ BACnet MS/TP compliant
- ◆ Automatically assigns the MAC address and the device instance
- ◆ 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

- ◆ 8 universal inputs, each of which is programmable as an analog, binary, or accumulator object. Accumulators limited to three per controller.
- ◆ Standard units of measure
- ◆ Pull-up resistors for switch contacts and other unpowered equipment. Switch selects none or 10K ohms.
- ◆ Removable screw terminal blocks, 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 and KMD-1180 series NetSensors

#### Outputs

- ◆ 8 universal outputs, each of which is programmable as an analog or binary object
- ◆ Standard and custom units of measure
- ◆ Slots for HPO-6700 series output override boards
- ◆ Removable screw terminal blocks, wire size 14–22 AWG
- ◆ 0–10 volts DC for analog objects
- ◆ 0 or 12 volts DC for binary objects
- ◆ Short-protected outputs, output current limited



#### Programmable features

- ◆ 10 Control Basic program areas
- ◆ 40 analog and 40 binary value objects
- ◆ Real time clock with power backup for 72 hours (BAC-5801 only)
- ◆ 8 PID loop objects
- ◆ See PIC statement for supported BACnet objects

#### Schedules

- ◆ 8 Schedule objects
- ◆ 3 Calendar objects

#### Alarms and events

- ◆ Supports intrinsic reporting
- ◆ 8 Notification class objects

#### Trends

- ◆ 8 Trend objects

#### Memory

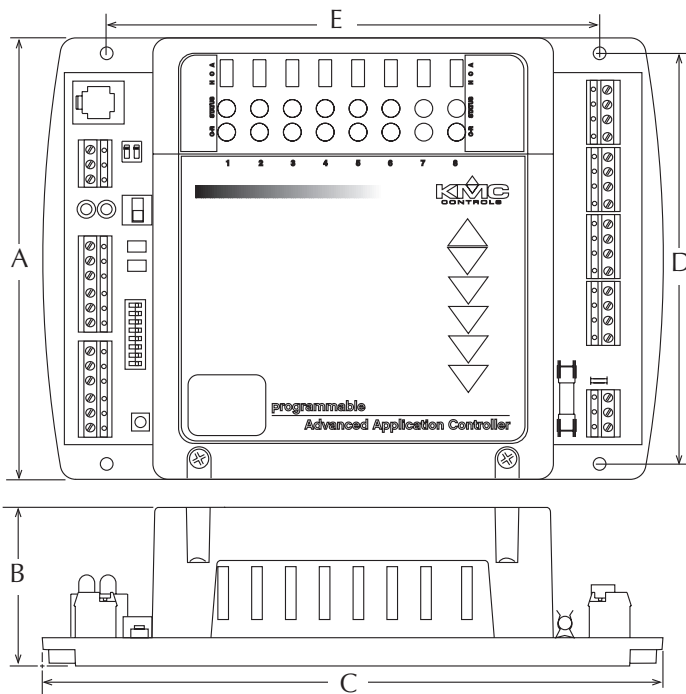
- ◆ Programs and program parameters are stored in nonvolatile memory
- ◆ Auto restart on power failure

#### Communications

- ◆ MS/TP operating at up to 76.8 kilobaud (network connections are supervised in smoke control applications)
- ◆ Automatically assigns MAC addresses and device instance numbers
- ◆ Modular jack for NetSensor connection (5 VDC at 25 mA typical)

## Specifications ((continued))

### Dimensions



A	B	C	D	E
5.38 in.	1.98 in.	7.55 in.	5.0 in.	6.0 in.
137 mm	50 mm	192 mm	127 mm	152 mm

## Installation

### Supply voltage

24 volts AC (-15%, +20%), 60 Hz, 36 VA, Class 2 only, non-supervised (all circuits, including supply voltage, are power limited circuits)

**Weight** 14 ounces (395 g)

**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% RH (non-condensing)

### Regulatory

- ◆ FCC Class B, Part 15, Subpart B
- ◆ BACnet Testing Laboratory listed
- ◆ CE compliant
- ◆ UL 916 Energy Management Equipment listed
- ◆ UL 864 Smoke Control Equipment listed (UUKL) (for smoke control applications, see Smoke Control Manual For BACnet Systems, P/N 000-035-08)

### Software compatibility

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

## Accessories

### Connectors and fuses

- 902-602-04 Replacement three-pin removable terminal block
- 031-602-02 Replacement four-pin removable terminal block
- 883-602-17 Replacement six-pin removable terminal block
- 902-600-04 Replacement fuse, 1.0 A, fast acting, 5 x 20 mm
- HPO-0054 Replacement fuse bulb
- HPO-0063 Replacement two-pin jumper

### Enclosure

- HCO-1102 Steel control enclosure, 10.1 W x 2.4 H x 7.1" D (257 x 62 x 181 mm)

**NOTE:** For smoke control applications, the controller must be mounted in a UL Listed FSCS enclosure or listed enclosure with minimum dimensions—see Smoke Control Manual For BACnet Systems (P/N 000-035-08)

### Output override boards (HPO-6700 series)

**NOTE:** See the (P/N 902-035-10) HPO-6700 series data sheet (only the HPO-6701/6704 boards are approved for smoke control applications)

### Power transformers

- XEE-6111-40 Transformer, 120-to-24 VAC, 40 VA, single-hub
- XEE-6112-40 Transformer, 120-to-24 VAC, 40 VA, dual-hub
- XEE-6112-100 Transformer, 120-to-24 VAC, 96 VA, dual-hub (required in smoke control applications)

## Models

- BAC-5801 Controller with real-time clock
- BAC-5802 Controller w/o real-time clock



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