Conquest BAC-5051AE

BACnet Router

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DESCRIPTION

The KMC Controls BAC-5051AE is a multi-port BACnet router. It is powerful enough for heavy network traffic and small enough to use as a control technician's service tool.

Routing Install the BAC-5051AE for BACnet IP, Ethernet, and MS/TP routing. IP routing is fully compliant with BACnet Standard 134-2012, Annex J.

Browser Configuration Configure the BAC-5051AE using only an Internet browser. There is no special software to learn or load.

Flexible Mounting Two mounting choices for permanent installations–DIN rail or surface mount.

Diagnostics Embedded metrics include: total number of devices, frame counts, frames in error, data frames, duplicate MAC addresses, token passing, and poll-for-master count.

MS/TP Diagnostics Capture Troubleshoot MS/TP issues by capturing, saving, and analyzing network traffic. Data is saved in industry standard .pcap files.

Automatically Learns Networks Detects and configures routing for the actual discovered networks.

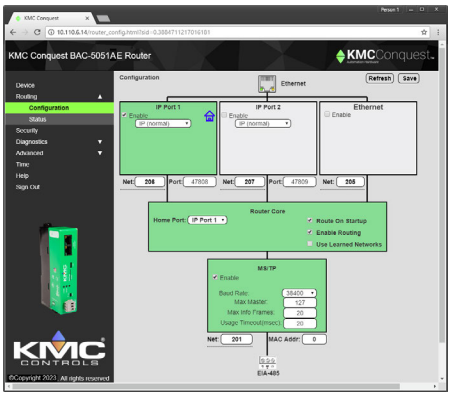
Enable and Disable Routing Use the router as a diagnostic tool to monitor traffic without routing traffic.

VAV Airflow Balancing Use with an Internet browser as an airflow balancing tool for BAC-8000 and BAC-9000 series VAV controllers.

AFMS Configuration Use the router to set up an **Airflow Measurement System (AFMS)**.

Zone Configuration Use the router to set up a **BAC-120063CW-ZEC zoning Flexstat**.

KMC Conquest™
Automation Hardware



Router network configuration

SPECIFICATIONS

Configuration Tools

Normal configuration from internally served browser pages. Requires HTML5-compliant versions of Microsoft Internet Explorer, Chrome, or Firefox.

Routing Protocols

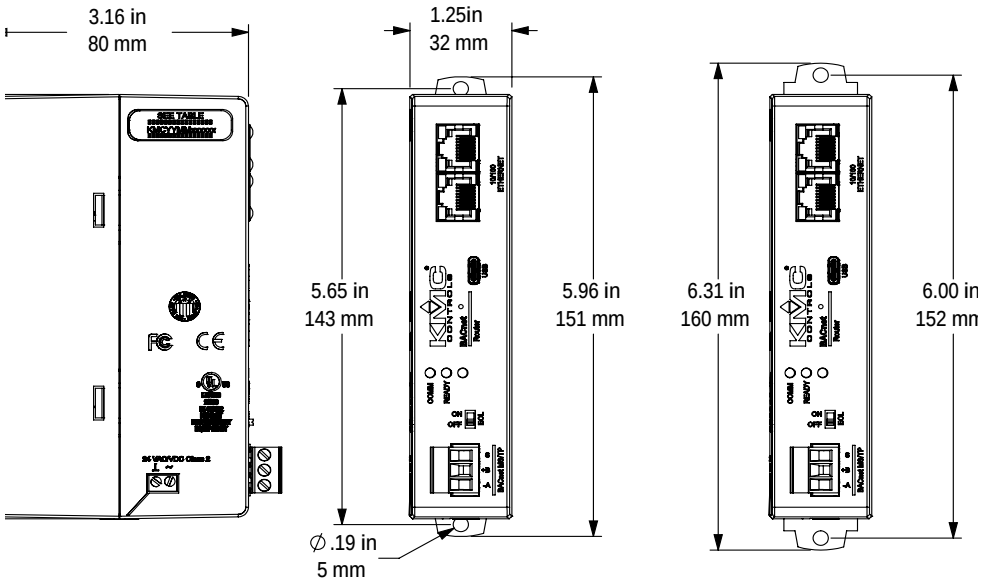
- One MS/TP network
- One BACnet Ethernet
- Two IP ports that can be set up for any of the following protocols:
  - Normal BACnet IP network routing
  - BACnet broadcast management device with network and port address translation
  - Foreign device registration with BACnet broadcast management devices (BBMD)
  - PAD (packet assembling/disassembling) routing

MODEL

DESCRIPTION	MODEL
BACnet router	BAC-5051AE

SPECIFICATIONS

Dimensions



35 x 7.5 mm DIN rail mounting Surface mount

Hardware Features

Processor and Memory

Processor	32-bit ARM® Cortex-M7
Memory	Configuration parameters and diagnostics are stored in nonvolatile memory; auto restart on power failure

Indicators

- Power
- MS/TP communication
- Ethernet status

Installation

Power

AC supply voltage	24 volts AC (–15%, +20%), 50/60 Hz, Class 2 only; non-supervised All circuits, including supply voltage, are power limited circuits.
DC supply voltage	24 volts DC (–15%, +20%) 5 volts DC through USB connection for temporary service connection
Required power	8 VA

Enclosure and Mounting

Weight	5.4 ounces (154 grams)
Case material	Green and black flame retardant plastic
Mounting	Surface mount or 35 × 7.5 mm DIN rail

Environmental Limits

Operating	32 to 120° F (0 to 49° C)
Shipping	–40 to 160° F (–40 to 71° C)
Humidity	0 to 95% relative humidity, non-condensing

Network connections

BACnet Ethernet and IP

Two 10/100BaseT, RJ-45 connectors

BACnet MS/TP

- One MS/TP port, supports speeds from 9,600 to 115,200 baud
- Removable three-screw terminal block, 12–22 AWG wire
- Switched end-of-line termination

USB

USB-A connection for power and communication to use as a service tool.

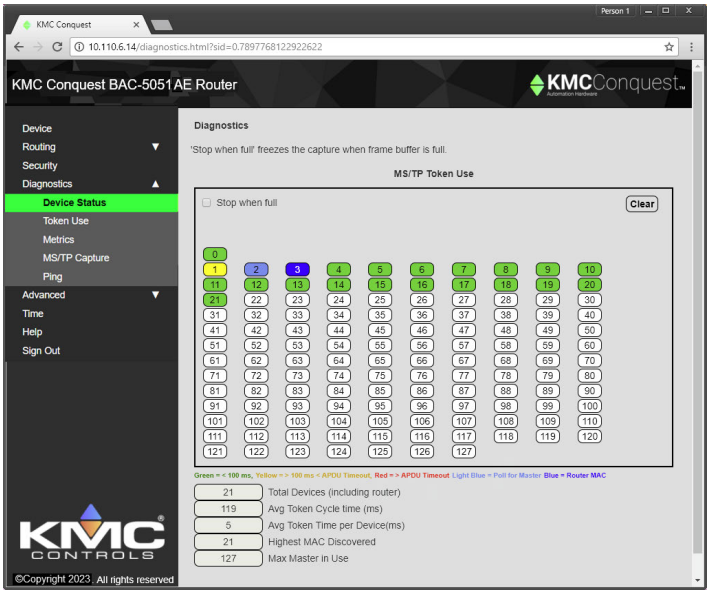
Timekeeping

The router is a BACnet time master device that can maintain time with or without an SNTP server. Time messages can be broadcast daily, weekly, or monthly to all or selected networks. Time messages are formatted as UTC, local, or both.

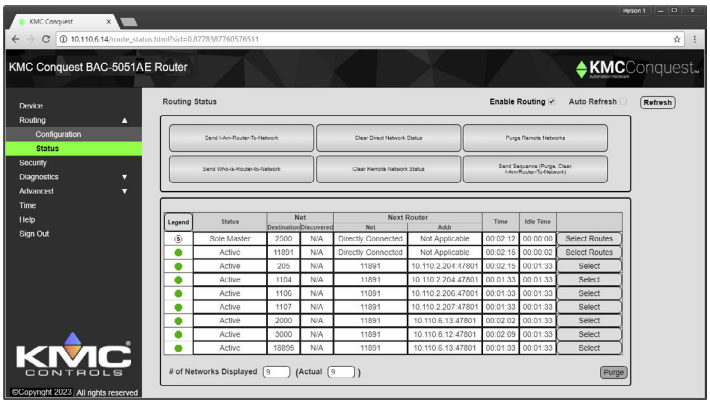
Agency and Regulatory Approvals

BTL	BTL certified as BACnet Router (B-RTR) (pending)
UL	UL 916 Energy Management Equipment
RoHS	RoHS compliant
CE	Pending
FCC	FCC Class A, Part 15, Subpart B and complies with Canadian ICES-003 Class A*

*This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



MS/TP network diagnostics



BACnet routing status

ACCESSORIES

KMD-5567	MS/TP network surge suppressor
XEE-6111-050	50 VA, single-hub transformer
XEE-6112-050	50 VA, dual-hub transformer
HSO-9001	Ethernet patch cable, 50 feet
HSO-9011	Ethernet patch cable, 50 feet, plenum rated

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SUPPORT

Additional resources for installation, configuration, application, operation, programming, upgrading and much more are available on the web at **www.kmccontrols.com**. To see all available files, log-in to the KMC Partners site.