



Lighting and Smoke Control

Lighting Control Solutions



Lighting consumes between 15 and 40% of most buildings' energy costs. Moreover, heat generated by lighting adds to the cooling load and energy used by the building's HVAC system. With energy cost per watt continuing to climb, every watt of lighting saved adds up to big savings over the life of a building. Wasted watts can be reduced by a building automation system with occupancy schedules, motion sensors, and photocell sensors.

KMC programmable BAC-58xx and BAC-A1616BC controllers can use schedules plus third-party switches and motion sensors (for occupancy control) and photocells (for daylight harvesting) connected to the inputs. Third-party dimmers and latching relays can be connected to the controller's outputs.

KMD-1261/1281 NetSensors have built-in motion sensors that can be used to trigger room lighting (in addition to changing temperature setpoints) when connected to a properly configured BAC-58xx controller. BAC-1x1xxxC FlexStats also contain a built-in motion sensor that can (with custom programming) be used to trigger room lighting.

Accessories

- KMD-1261/1281 NetSensors with motion sensor for use with KMD-58xx controllers (see the Digital Sensors and Accessories Catalog Supplement, SP-094)
- REE-2xxx/31xx Relays (see the KMC Catalog, Electronic and Pneumatic Controls, SP-071)

Models

- BAC-1x1xxxC FlexStats with motion sensor (see [page 9](#))
- BAC-5801 BACnet 8 x 8 Advanced Application Controller with real-time clock (see [page 10](#))
- BAC-5802 BACnet 8 x 8 Advanced Application Controller without real-time clock
- BAC-5831 BACnet 16 x 12 Advanced Application Controller with real-time clock
- BAC-A1616BC BACnet 16 x 16 Building Controller (see [page 15](#))
- CAN-A168EIO 16 x 8 I/O expansion module for the BAC-A1616BC Building Controller (see [page 16](#))



Smoke Control System (UUKL): Firefighters' Smoke Control Station (with BAC-58xx)



Smoke Control Terms

Smoke Control System—A system that modifies the movement of smoke in ways to provide safety for the occupants of a building, aid firefighters, and reduce property damage.

Fire Alarm Control Panel (FACP)—A device for receiving and announcing the location of a fire, based upon input from smoke/flame/heat detectors, manual call points, or pull stations. It also sends a signal to the FSCS to initiate programmed smoke control procedures.

Firefighters' Smoke Control Station (FSCS)—A panel for use by the fire department for monitoring and overriding smoke-control systems and equipment. It receives fire/smoke information from an FACP and may initiate automatic pressurization and depressurization of appropriate zones to contain/exhaust smoke and allow for safe evacuation of the building.

UL (Underwriters Laboratories)—A testing laboratory that develops standards and test procedures for materials, components, assemblies, tools, equipment, and procedures that relate mainly to product safety and utility.

UUKL Listing—An Underwriters Laboratories' category code under UL 864, Control Units and Accessories for Fire Alarm Systems. UUKL is for products covered under the description "Smoke Control System Equipment."

National Fire Protection Association (NFPA)—An independent, voluntary-membership, nonprofit organization that is a leading source of technical background, data, and consumer advice on fire protection, problems, and prevention.

An FSCS (Firefighters' Smoke Control Station) is a panel for use by the fire department for monitoring and overriding smoke-control systems and equipment. It receives fire/smoke information from an FACP (Fire Alarm Control Panel) and may initiate automatic pressurization and depressurization of appropriate zones to contain/exhaust smoke and allow for safe evacuation of the building.

The controllers and accessories listed below are listed to the **ninth** edition of UL 864 (UUKL). For more information about them, see their respective sections in this catalog and/or their data sheets.

For information about **custom smoke control panels** that include UUKL-listed KMC BACnet controllers, contact KMC technical support.

Controller Models (UL 864 Listed)

BAC-5801	BACnet 8 x 8 Advanced Application Controller with real-time clock (see page 10)
BAC-5802	BACnet 8 x 8 Advanced Application Controller without real-time clock
BAC-5831	BACnet 16 x 12 Advanced Application Controller with real-time clock

Accessories (UL 864 Listed)

HPO-0070*	Twelve-output transient suppressor board
HPO-0071*	Eight-input transient suppressor board
HPO-6701**	Triac, zero-cross switching, optical isolation
HPO-6704**	4–20 mA current loop, short protection
KMD-5567*	Network surge suppressor module and connector
KMD-5575	Network repeater-isolator
XEE-6112-100*	Transformer, 120-to-24 VAC, 100 VA, dual hub

*NOTE: These accessories are required in smoke control systems.

NOTE: HPO-6702/6703/6705 override boards are **not UL 864 listed. Only the HPO-6701/6704 are.