

The BACnet® software module enables the integration of the Excellum energy control system with a BACnet® compatible building automation system. ELM operates autonomously while lighting status, lighting levels, movement detector status and energy usage can be communicated via BACnet®.

Connection between the two systems is established via BACnet®/IP.



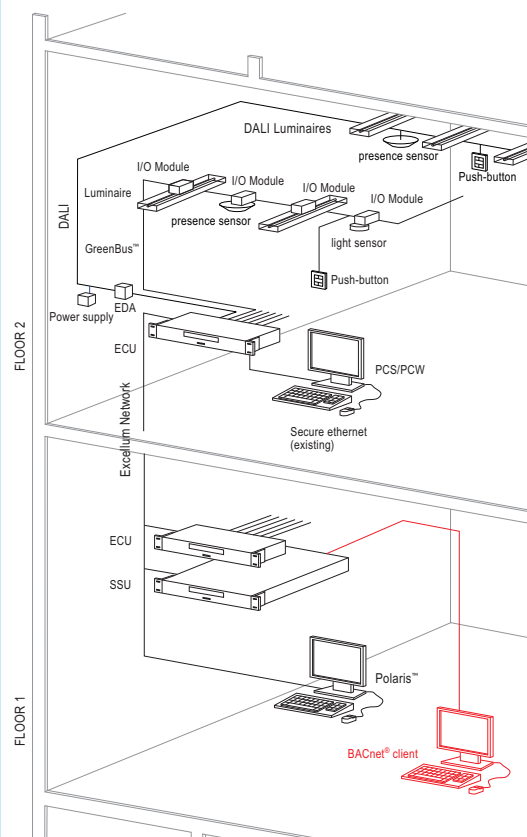
### BACnet® interface module:

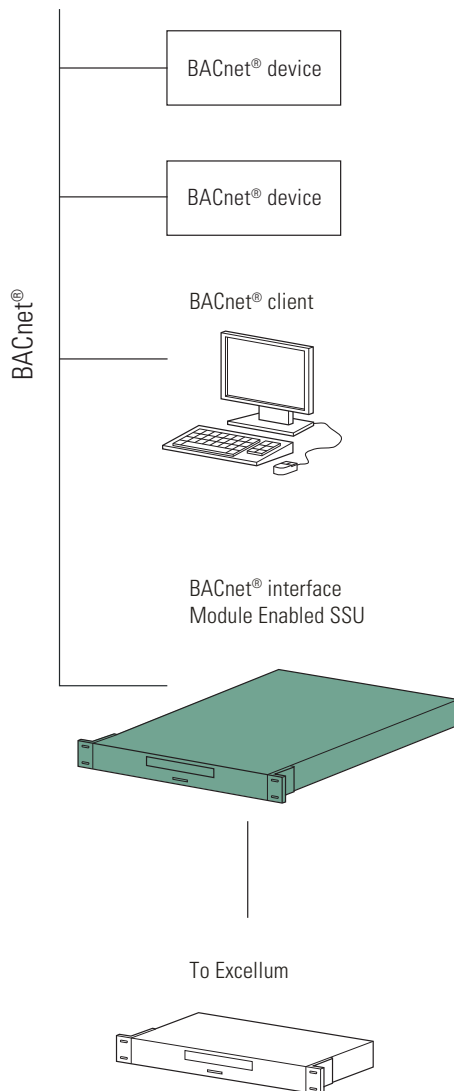
- Enables BACnet® switching and dimming control.
- Provides peak load control over the lighting load via the following two methods:
  - Excellum provides information about the amount of lighting load available for shedding in a specific zone of the building or in the building as a whole. Peak load requests can be made for each selected zone or group individually.
  - Excellum can also initiate prioritized Peak load by predefined zones to reduce the total lighting load.
- Both types of peak load requests can be defined in Watts or as a percentage of the current lighting load.
- Notifies Excellum of an emergency through a BACnet® connected fire alarm input to turn all lights on.
- Shares occupancy information obtained by ELM with a BACnet® client to integrate in other systems (i.e. HVAC) with occupancy.
- Utilizes a centralized BACnet® time schedule.

To ensure smooth and user-friendly integration, the BACnet® software module creates access points with names and descriptions that can be customized to accommodate any BACnet® control client's naming scheme. It also exports standard BACnet® object properties in a clear, structured manner and can define an unlimited number of groups of luminaires.

The Excellum BACnet® Interface Module adheres to the ANSI/ASHRAE standard 135-2004 "BACnet®" (ISSN 1041-2336)

Component of this data sheet is indicated in red.





## Technical description

The ELM BACnet® Interface Module shares the following information with BACnet® clients:

Property	BACnet® type	Description
Light Zone State	Binary Value*	State of the defined lighting zone - on or off
Light Zone Dimming	Analog Value*	Light output level of the defined lighting zone, from 100% (maximum light output) to 0% (minimum light output)
Fire Alarm State	Binary Input	State of the fire alarm system -alarm activated or alarm not activated
Occupancy State	Binary Output	State of the defined occupancy sensor - occupancy detected or not detected
Sheddable Load	Analog Output	Reports the total lighting load available for load reduction, defined in Watts
Shed Status	Analog Output	Reports the total current load reduction achieved according to Excellum defined prioritization, defined in Watts
Shed Request	Analog Input	Requested total amount of load reduction, defined in Watts or as a percentage of sheddable load
Sheddable Load (Group)	Analog Output	(As above, unprioritized for the selected group)
Shed Status (Group)	Analog Output	(As above, unprioritized for the selected group)
Shed Request (Group)	Analog Input	(As above, unprioritized for the selected group)

\* Read/write BACnet® properties

## Order code

BACnet® C2X01

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