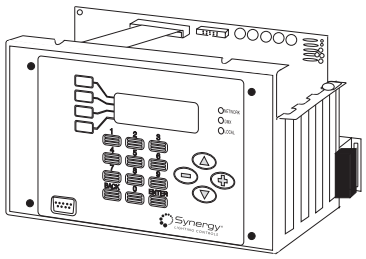
Synergy® LIGHTING CONTROLS

Catalog Number	
Notes	Type

Lighting Control System

Network System Controller

SYSC MLX



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FEATURES

The Synergy® MLX system controller adds programming, automation and networking capabilities to a Synergy system. Capabilities include individual circuit switching control of lighting functions for a wide variety of applications. System outputs respond to time-of-day schedules via the internal time clock. Additionally, inputs can be accepted from external devices such as simple switches, photocells, occupancy sensors, digital remotes and other control systems to directly control lighting or override scheduled events. Over 4,000,000 Synergy MLX controllers may be interconnected to provide access to more than 500,000,000 control outputs from a single switch or schedule.

- Supports all Synergy power modules
- Seven-day scheduling with astronomic clock
- Holiday schedule dates
- Load prioritization setup
- Exclusive Script Logic Application Language
- Programmable switches with interpanel linking
- Support for SEQUEL® dimming control stations
- Support for Synergy® digital remote stations
- Timed switch overrides
- Analog source monitoring with multiple set points
- Integral keypad with backlit display
- All programming stored in non-volatile industrial flash memory card
- Automatic system event logging
- Integral lamp burn hours and start counters
- BACnet™ compliant network
- Integral RS232 ports
- Optional PC software
- Modem option (only one per Synergy system required) allows for remote dial up programming and troubleshooting.
- Optional support for Legacy MiniPac, Sequel, and MaxStar dimmer cabinets.
- English, Spanish or French operation
- UL and C-UL listed; CEC certified

Warranty

Three-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application.

Specifications subject to change without notice.

Synergy Controller Features

System Functions	MLS Controller	MLX Controller
Relay Capacity (No Breakers)	48 96 Total w/Secondary Cabinet	48 96 Total w/Secondary Cabinet
Relay Capacity (With Breakers)	40 96 Total w/Secondary Cabinet	40 96 Total w/Secondary Cabinet
Dimmer Capacity	30 60 Total w/Secondary Cabinet	30 60 Total w/Secondary Cabinet
DALI Capacity (loops)	18 36 Total w/Secondary Cabinet	18 36 Total w/Secondary Cabinet
DMX512 Input	DMX Channel-to-Output Configured via controller software	
Scheduling	100 schedules/unlimited events	100 schedules/unlimited events
Analog Input	YES	YES
PC Support	YES	YES
Script Logic	YES	YES
Logging	YES	YES
Priority Logic	YES	YES
Network	YES	YES
BACnet®	NO	YES
RS232	YES	YES
Modem	YES, optional	YES, optional
Sequel Stations	YES	YES
Legacy Dimmers	YES, optional	YES, optional
Digital Remotes	YES	YES

ORDERING INFORMATION

Example: **SYSC MLX**

Choose the boldface catalog nomenclature that best suits your needs and write it on the appropriate line. Order accessories as separate catalog number.

SYSC	MLX	
Series	**Controller type**	**Options**

MLX Network system controller with programmer

MODEM Modem for remote dial-up access

DMX Dimming interface, required for connection to DMX 512 control signal

LEGACY Allows control of one complete network (255 dimmers) of Legacy MiniPac, Sequel, and MaxStar dimmer cabinets. Replaces master controller on existing Legacy system.

SYSC network requires:
- Ethernet networks - CAT5 cable
- Twisted pair ARCnet network:
  Synergy SYA CABLES2 (plenum rated)
  OR
  Belden 3105A (non plenum rated)

Accessories

Order as a separate item.

SYA SKIT Permits two SYE enclosures to operate with a single MLX controller

SYSW CONFIG Windows™ configuration software and cable

SYA CABLES2 Synergy plenum rated RS485 network cable (Specify length: 250', 500' or 1000')

SYSC MLX Network System Controller

SPECIFICATIONS

MECHANICAL

- Chassis: plug-in assembly with locking screws, field-installable in SYE enclosure.

ENVIRONMENTAL

- Operation and storage temperature: 32-104°F (0-40°C).
- Humidity: 10-90% non-condensing.

ELECTRICAL

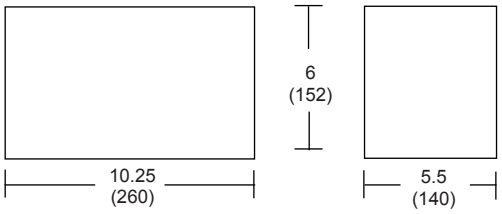
- Power input: 24VDC maximum, supplied by enclosure power supply.
- Data port: front-mounted DB9 RS232 serial communications connector accessible without removal of cover.
- Internal RS232 Port for connection to A/V systems.
- Internal RS485 Port for connection to SEQUEL control stations Synergy® digital remote stations, and other network devices.
- Internal RS485 ARCNET™ (ANSI 878.1) Port for connection to other Synergy controllers and BACnet™ systems.
- Internal Ethernet Port for connection to other Synergy® controllers and /or BACnet™ systems.
- Internal MSTP Port for connection to other Synergy® controllers and or BACnet™ systems. Disables use of digital control stations.

FUNCTIONAL

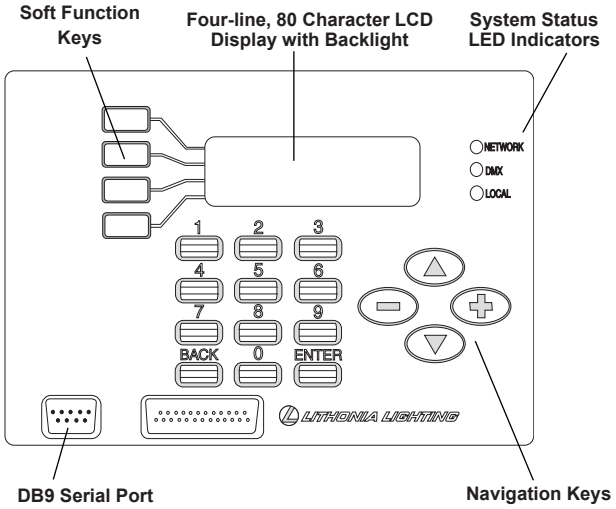
- Program entry: numeric keypad (0-9, back and enter), "soft" function keys, navigation key cluster (up, down, + and -) for menu navigation and logical entry selections.
- LCD display: four-line, 80-character with back light.
- LED indicators: network status, local status and DMX true indication.
- Outputs: 128 maximum per controller in typical configurations; map inputs and schedules to any combination of connected relays, dimmers or controllable circuit breakers.
- Groups: map output relays and dimmers into logical groups (zones) for association to inputs and schedules.
- Switch inputs: 128 maximum per controller, soft-linked through the program to control any combination of outputs; one minute to 100 hour time-out function per switch.
- Analog input: maximum of 48, each capable of multiple set-point operation or tracking operation.
- *Priority on* switch: switch input set to *priority on* cannot be overridden *off* by any other source until the *priority on* condition is removed.
- *Priority off* switch: switch input set to *priority off* cannot be overridden *on* by any other source until the *priority off* condition is removed.
- Four levels of priority provide for layering of manual and automatic functions, supports all 16 BACnet™ priority levels via network commands.
- Schedules: Maximum of 100 independent schedules of time events, number of events per schedule limited only by system resources. Schedules may be assigned to days of the week, days of the year, or recurring holiday dates through 12/31/2200.
- *Warn off:* automatic flash of lights at scheduled *off* to warn occupants of impending *off*; user selectable from one to 99 minutes.
- Logging: automatic logging of system events including *on* events, *off* events, relay run time, relay starts, alarms, power up, power down, override *on* and override *off*; 10,000 event maximum storage with automatic overwrite of oldest data, view log data on LCD display or printout.
- DMX Control: control connected loads with DMX control signal using optional DMX input card. May be configured via hardware settings or through controller software to provide prioritized and conditional control of loads along with other input devices and schedules.
- Legacy Dimmer Control: control up to 255 legacy MiniPac, Sequel, and MaxStar dimmers with optional LEGACY card. Synergy controller replaces function of master controller in existing systems. Legacy dimmers may be controlled by any input or schedule in the Synergy system.

DIMENSIONS

All dimensions are inches (millimeters).
Controller weight = 5.5 lbs. (2.6 kg)



FUNCTIONAL



- PC software: program the controller, download data, upload data and monitor status using optional Windows 95/98™, NT, 2000 or XP software via front-mounted DB-9 RS232 port, network connection or optional modem connection.
- Sixty digital stations maximum per MLX controllers.
- Room Assignment: digital station control of up to a 4x8 room matrix that may be dynamically joined and separated to accommodate partitioned spaces. Join/separate action for each set of rooms may be triggered by switch input, digital station, time schedule, or partition sensor.

NETWORK

- Protocol: BACnet™, (ANSI / ASHRAE 135-1995) used for network communications.
- Hardware: RS485 ARCNET™ (ANSI 878.1) token passing, 156 Kbps transmission speed. Approved cables include Synergy SYA CABLES2 (plenum-rated) or Belden 3105A (non plenum rated).

Synergy® LIGHTING CONTROLS

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