

LIGHTING CONTROLS

INTEGRATED LIGHTING CONTROL PANEL AUTOPHOS®



DESCRIPTION

AUTOPHOS® is a BACnet MSTP or N2 relay panel designed for integration with building automation systems. It is powered by the Lx5 technology platform, the first dual processor lighting controller designed from the ground up for integration. No need for protocol option cards, gateways, or separate networks. As an integrated device, **AUTOPHOS®** provides substantial installation and operational savings. Built for expandability, **AUTOPHOS®** can be used for a wide range of projects, from small professional office buildings to large educational campuses. This next-generation product brings increased flexibility in lighting control applications with superior relay and control technology.

FEATURES

- **BACnet MSTP and Metasys N2 included**
- **Dip switch selectable protocol**
- **Network addressing via dip switch selection**
- **BACnet schedules reside in LX-5™ controller**
- **Supports BACnet Interoperable Building Blocks (BIBBs) for BAS alarms, trends, and schedules**
- **Dual coil latching 20A relays with superior quality and reliability**
- **Relays with direct manual-override switch**
- **Available in 8, 16, 32, 48, and 60 relay capacities**
- **Programs switch input and relay output priorities, flash warning, relay energize time, output sequencing, and grouping**
- **Available with up to 56 digital switch inputs and 6 analog inputs**

AUTOPHOS®

Kele®



- **Network to 99 panels**
- **High voltage dead front covers**
- **Surface mount panels standard with optional flush mount**
- **Optional UL 924 Emergency Transfer relays (last 16 relays)**
- **Removable terminal blocks for easy wire connections**
- **Full-frame, hinged door with key lock (field reversible)**
- **High voltage bay (optional) at top of the panel for mounting contactors; includes a dead front cover**
- **Low voltage bay (optional) at the bottom of the panel for mounting network routers, power supplies, or other controls**

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SPECIFICATIONS			
Supply Voltage	115/277 VAC ±10%, 60 Hz, 30 VA	Dimensions	Standard
Supply VA	30 VA	08-relay	16.6"H x 13.2"W x 5.8"D (42.2 x 33.5 x 14.7 cm)
Secondary Voltage	24 VAC±10%	16-relay	16.5"H x 18.1"W x 5.8"D (41.9 x 46.0 x 14.7 cm)
Relay Type	SPST Latching NO with manual override, pulse driven	32-relay	25.3"H x 18.1"W x 5.8"D (64.3 x 46.0 x 14.7 cm)
Contactor Ballast	20 A, 277 VAC	48-relay	34.1"H x 18.1"W x 5.8"D (86.6 x 46.0 x 14.7 cm)
Contactor Tungsten	20 A, 120 VAC tungsten	60-relay	42.6"H x 18.1"W x 5.8"D (102.8 x 46.0 x 14.7 cm)
Resistive Load	20 amp @ 277 VAC, 20 amp @ 347 VAC	16-relay	25.3"H x 18.1"W x 5.8"D (64.3 x 46.0 x 14.7 cm)
Short Circuit Current Rating	20,000 A @ 277 VAC	32-relay	34.1"H x 18.1"W x 5.8"D (86.6 x 46.0 x 14.7 cm)
Relay Life	2 million+ on/off cycles @ no load 300,000 on/off cycles @ full load	48-relay	42.6"H x 18.1"W x 5.8"D (102.8 x 46.0 x 14.7 cm)
Analog Switch Inputs	6; 0-5 VAC light level sensor	60-relay	52.0"H x 18.1"W x 5.8"D (132.1 x 46.0 x 14.7 cm)
Digital Switch Inputs	(model specific)	16-relay	34.1"H x 18.1"W x 5.8"D (86.6 x 46.0 x 14.7 cm)
16 relay	24 two wire or 12 three wire	32-relay	42.6"H x 18.1"W x 5.8"D (102.8 x 46.0 x 14.7 cm)
32, 48 or 60 relay	56 two wire or 28 three wire	48-relay	52.0"H x 18.1"W x 5.8"D (132.1 x 46.0 x 14.7 cm)
Relay Terminals	screw terminal with box clamp, accepts double 14-10 awg or single awg (solid or stranded Cu only)	60-relay	52.0"H x 18.1"W x 5.8"D (132.1 x 46.0 x 14.7 cm)
Network	Max length 4000 ft	16-relay	34.1"H x 18.1"W x 5.8"D (86.6 x 46.0 x 14.7 cm)
Communication Ports	Network ready, two-wire RS-485	32-relay	42.6"H x 18.1"W x 5.8"D (102.8 x 46.0 x 14.7 cm)
Communication Wire	Belden 8760 or equal	48-relay	52.0"H x 18.1"W x 5.8"D (132.1 x 46.0 x 14.7 cm)
Communication Protocol	BACnet MST (9600, 19200, 38400, 76800), N2 (9600)	Enclosure Rating	NEMA 1, Dry/ indoor environment
Operating Temperature	32° to 125°F (0° to 52°C)	Approvals	UL 916, UL 924, CE, UL E133813
Operating Humidity	20% to 95% RH non-condensing	Warranty	2 years



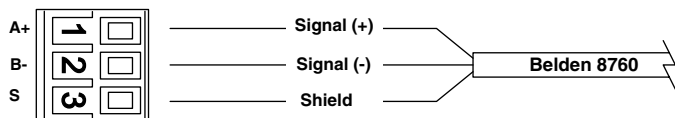
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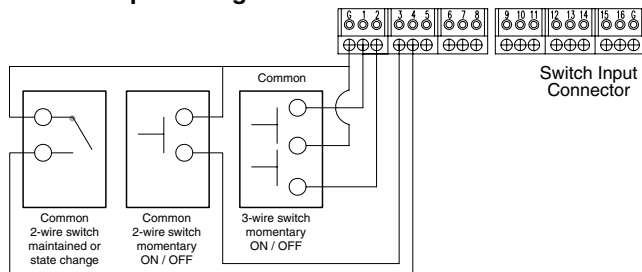
WIRING

Communication

BACnet MSTP / N2 Network (input)



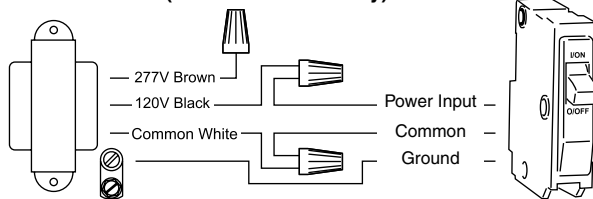
Switch Input Wiring



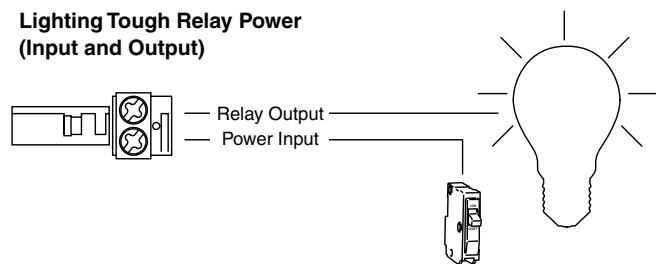
Wiring Recommendations:

Gauge: 18 AWG (non-twisted, un-shielded wire only)
Maximum Distance: 500 feet of wire between switch input connector and switch terminals

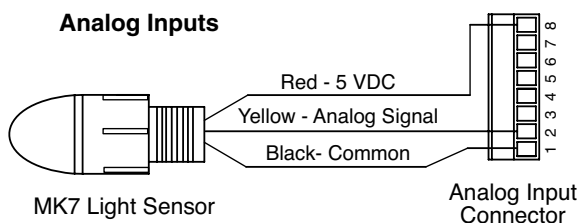
Control Power (Transformer Primary)



Lighting Tough Relay Power (Input and Output)



Analog Inputs



Wiring Recommendations:

Gauge: 18 AWG (non-twisted, un-shielded wire only)
Maximum Distance: 250 feet of wire between analog input connector and MK7 Light Sensor

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ORDERING INFORMATION

MODEL	DESCRIPTION
AP08P	AUTOPHOS® relay panel with 8-relay capacity, 24 digital and 6 analog inputs
AP16P	AUTOPHOS® relay panel with 16-relay capacity, 24 digital and 6 analog inputs
AP32P	AUTOPHOS® relay panel with 32-relay capacity, 56 digital and 6 analog inputs
AP48P	AUTOPHOS® relay panel with 48-relay capacity, 56 digital and 6 analog inputs
AP64P	AUTOPHOS® relay panel with 60-relay capacity, 56 digital and 6 analog inputs
XX	Number of factory installed relays
Ordering selections required for 16, 32, 48, 60 relay panels	
00	No special control options
IP	Factory installed BACnet IP router with 100 VA aux transformers requires Lo bay (1L)
X0	UL 924 Emergency transfer - last 16 relays
XP	UL 924 Emergency transfer, BACnet IP router with 100 VA aux transformers requires Lo bay (1L)
0L	No Lo bay
1L	Added 9" Lo bay *1
0H	No Hi bay
1H	Added 9" Hi bay *1

AP08P

08

Example: AP08P08 AUTOPHOS® 8-relay capacity panel with 8 factory installed relays.

AP16P

09

00

1L

0H

Example: AP16P-09-00-1L-0H AUTOPHOS® 16-relay capacity panel with 9 factory installed relays, with no special control options and added 9" Lo bay.

*1 For size 60 relay panel, limited to either Hi bay OR Lo bay option.

ACCESSORIES

APR20

AUTOPHOS® 120/277 VAC 20A relay

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