

## Apprentice3

## Programmable Lighting Control

### Overview

The Apprentice3 programmable lighting control panel is an energy saving lighting controller. You can network up to 48 control points and 64 LightSync™ devices per network and connect via easy to use RJ-45 ports. Connect and program panels using a USB port on a laptop and our free Apprentice3 software. Add-on cards are easy to install and add the following capabilities: BACnet, N2, MODBUS, TCP/IP, or DMX control. Also optional remote mount 0-10V isolated dimming control modules for standard daylight harvesting operations.



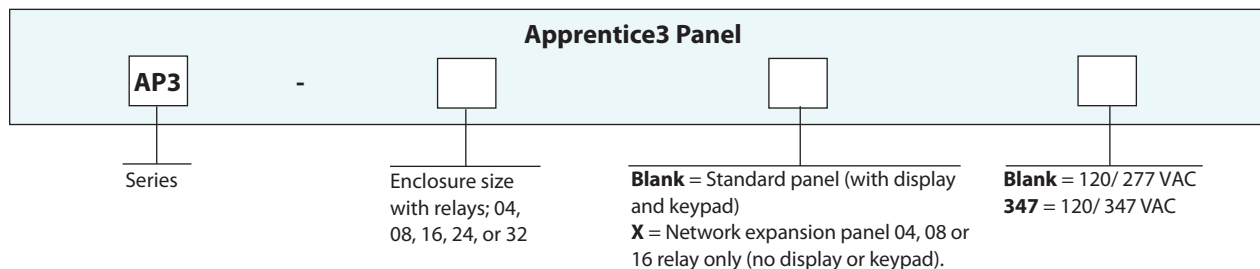
### Features

- **Made in the USA**
- **Digital CAT-5 Ready**
- **Programming Options** are done with an Integrated keypad with 4-line LCD display or using Apprentice3 Pro software via USB or TCP/IP.
- **LightSync Data Line Device Ready** utilizing RJ45 connectors and standard CAT-5 cabling for data line.
- **Network capability** allows you to connect panels for up to 48 outputs and 64 LightSync devices per network.
- **Internet Capability** to program, monitor, and control panels across the network or internet with the addition of a TCP/IP module.
- **Plug-load** compatible 16 Amp lighting relay.
- **Relay Groups** consist of any relay on the network and can be assigned to any of the 48 available groups — controlled by any timer, switch, or other external commands.
- **Relay Presets** can be programmed from any relay ON/OFF patterns and be assigned to any of the 48 available presets — controlled by any timer, switch, or other external commands.
- **Timer Scheduling** for **48 available timers** that can turn relays ON or OFF for Time-of-Day, Astronomical times, and Open/Close.
- **Clock Functions** include Automatic Astronomical calculation of Sunrise and Sunset and Adjustable Daylight Saving Time and Enable/Disable.
- **Switching Inputs** accepts virtually any type of switch input, momentary or maintained, 2- or 3-wire switch and directly powers data line switches and devices.
- **1 AP3IM** 4-input module provided with each AP3 panel, additional AP3IM modules ordered separately and field installed.
- **Add-On Modules** can be added to each controller, including BACnet IP, BACnet MSTP, Modbus RTU, Modbus ASCII, N2, DMX512, and TCP/IP.
- **AP3DM** -P or -R modules for 0-10V dimming for up to 28 channels (best performance) or 48 total.
- **Expansion panels** with 4 to 16 relays are available to expand the number of relay outputs on a standard panel.
- **LSG3 MZD** and non-dim switch stations sported with power for 10 CAT-5 LS devices before a PSR is required.

### Warranty

Five-year limited warranty

### Ordering



**Ordering Notes:** - All AP3 panels shipped fully populated with AP3R-1 relays - Expansion panels can only have 4, 8, or 16 relays per X panel. - Maximum of 4 (AP3R-2) 2-pole relay per panel, ordered separately and field installed.

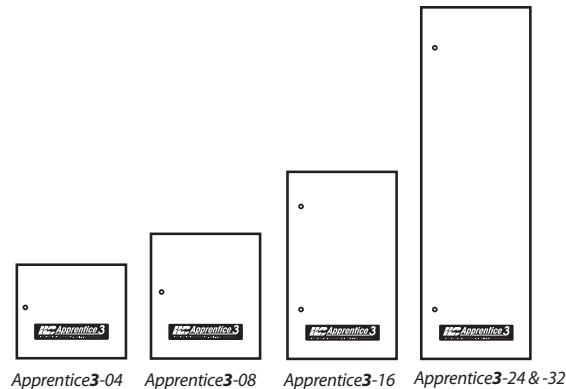
**Note:** 1 AP3IM module included, additional AP3IM or AP3DM-P can be ordered separately, 4 size will accept only 1, 8 will accept 2 total, 16 will accept 4, 24 will accept 6, and 32 will accept 8 total.

AP3-xx  
3-1-2024 Rev.G

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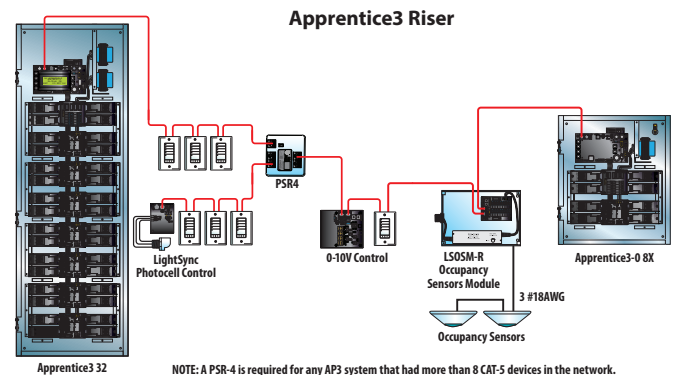
## Programmable Lighting Control

### Physical



#### Enclosure Size Options (NEMA Type 1 w/cover)

Enclosure Type	Relays	Width	Height	Depth
Apprentice3-04	4	14 in.	12 in.	4 in.
Apprentice3-08	8	14 in.	16 in.	4 in.
Apprentice3-16	16	14 in.	24 in.	4 in.
Apprentice3-24	24	16 in.	42 in.	4 in.
Apprentice3-32	32	16 in.	42 in.	4 in.



### Specifications

#### Relays:

- **1 Pole relays** (AP3R-1) with control for 16 Amp loads up to 347VAC, used for electronic ballasts, ballasts, resistive and general loads.
- **2 Pole relays** (AP3R-2) with the same footprint as the single pole, control of 16 Amp loads up to 347VAC per pole used for electronic ballasts, ballasts, resistive and general loads, 208/240/480VAC 2-pole circuits.
- **Plug-load compatible** 16 Amp lighting relay

#### Safeguards:

- **Power surge and spike suppression** up to 123 volts on the 24VAC power input
- **Memory retention** for firmware and programming up to 50 years
- **Real-Time-Clock time retention** 45 days or greater without power

#### Physical:

- NEMA1 galvanized enclosure
- Double sided construction for wiring on both sides
- Provided with pre-drilled mounting holes
- Painted removable hinged locking door for flush or surface mounting
- High voltage barriers separate Normal/Emergency and Class 2 wiring

#### Electrical:

- 120/ 277 VAC or optional 120/ 347 VAC
- 1 Amp

#### Capacities:

- 4, 8, 16, 24 or 32 relays
- For best dimming performance limit the 0-10V Dimmer channels to 28 or 7 AP3DM-P and AP3DM-R modules combined

#### Operating Environment:

- Location: Interior space
- Operating Temp.: 0° to 40° C
- Humidity: 10% - 90% Non-condensing
- Vibration: Stationary

#### Certifications and Approvals:

- UL CUL
- FCC Part 15
- FCC Part 68
- Title 24
- ASHRAE compliant

#### Non-Compatible Products:

- LSLVD
- LSG3-Scene and Scene/MZD stations
- LSTS2 touch screens
- LSCS and LSWS occupancy devices