

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 modem interface, DMX control and DTMF telephone switching. Also optional remote mount 0-10V isolated dimming control modules for standard daylight harvesting operations.



Features

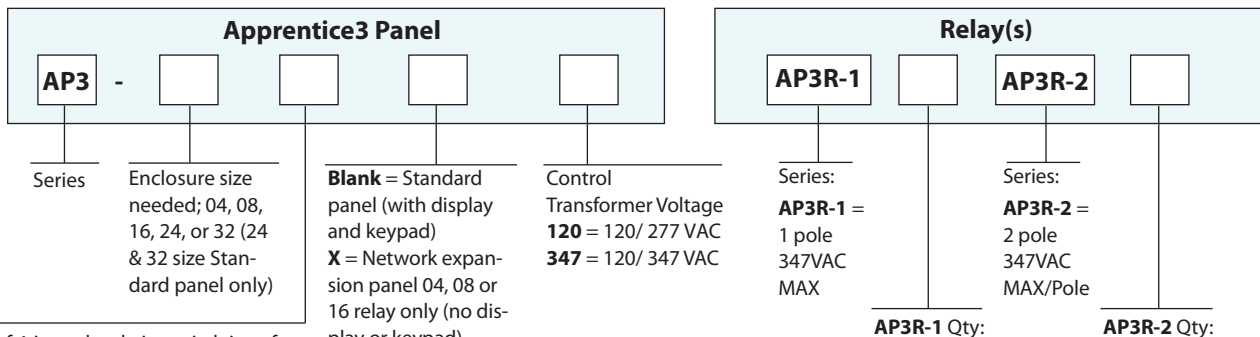
- **Made in the USA**
- **Digital CAT-5 Ready**
- **Programming Options** are done with an Integrated keypad with 4-line LCD display or using Apprentice3 Pro software via USB or TCP/IP.
- **LightSync Data Line Device Ready** utilizing RJ45 connectors and standard CAT-5 cabling for data line.
- **Network 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.
- **Add-On Modules** can be added to each controller, including BACnet IP, BACnet MSTP, Modbus RTU, Modbus ASCII, N2, DMX512, TCP/IP, DTMF telephone switching and modem. Also optional remote mount 0-10V isolated dimming control modules for 48 zones.
- **Expansion panels** with 4 to 16 relays are available to expand the number of relay outputs on a standard panel.

Warranty

One-year limited warranty

Ordering



Number of 4-input hardwire switch interface boards. 4 size will accept one board, 8 will accept two, 16 will accept four, 24 will accept 6, and 32 will accept eight.

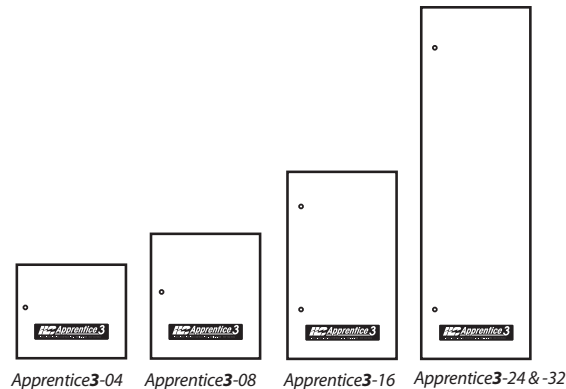
Ordering Notes: - Only 1 standard panel allowed per network.
 - Expansion panels can only have 4, 8, or 16 relays/panel.
 - A maximum 4 2-pole relays per panel.

AP3-xx Rev.B

Apprentice3

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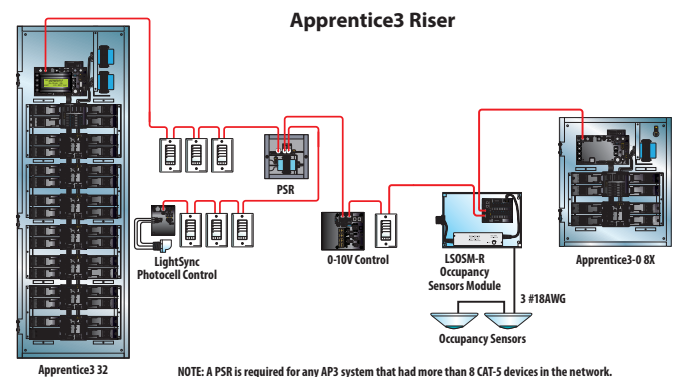
Physical



Apprentice3-04 Apprentice3-08 Apprentice3-16 Apprentice3-24 & -32

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.



NOTE: A PSR is required for any AP3 system that had more than 8 CAT-5 devices in the network.

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

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