intelligent
lighting controls

Rev 1 March 2024

Apprentice 3
Essentials Applications Guide

Classified

AP3 Overview

Features

- Programmable lighting control panel (Made in the USA)
- Network up to 48 control points and up to 64 addresses
- Program panels with the 4-line LCD display or using our free Apprentice 3 software
- Remote mounted add-on modules are available to expand capabilities
- Time scheduling for 48 available timers
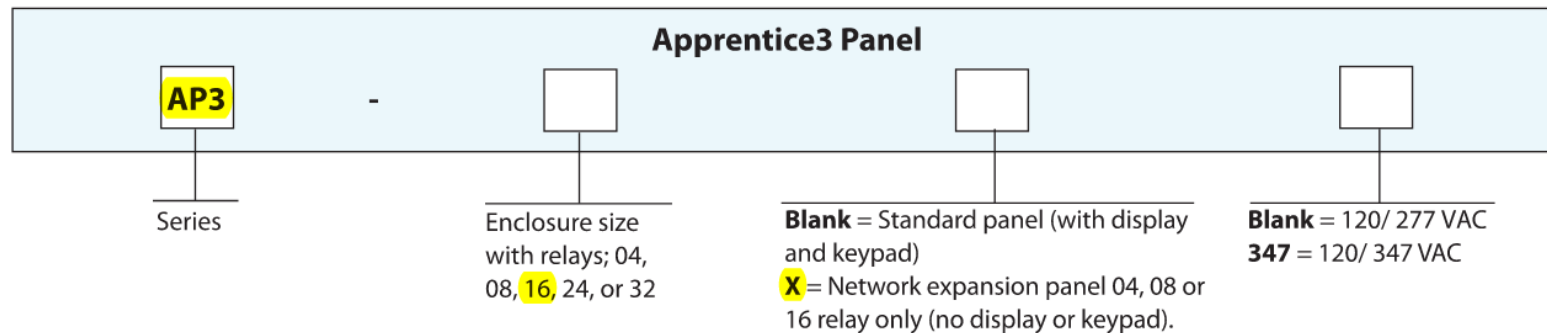- Power available for up to 10 LightSync devices before a PSR4 is required

Ordering

Panels Sizes & Relays

- Only 1 standard panel allowed per network which can have up to 32 relays
- Expansion panels can only have 4, 8, or 16 relays
- All AP3 panels are shipped fully populated with (AP3R-1) 1-pole relays
- Panels can have a maximum of 4 (AP3R-2) 2-pole relays per panel
- Relays are rated for 16 amps of lighting load and are plug-load compatible
- Maximum of 48 relays for the entire AP3 network

The below example is an expansion panel with 16 1-pole relays (AP3-16X)
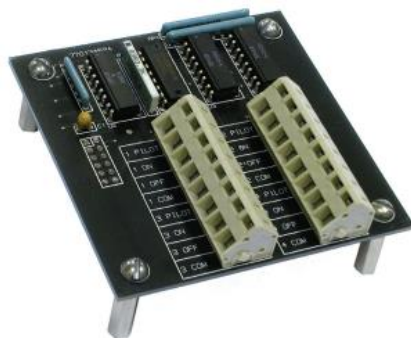
Apprentice3 Panel

| AP3 | - | ☐ | ☐ | ☐ |

Series

Enclosure size with relays; 04, 08, 16, 24, or 32

Blank = Standard panel (with display and keypad)
X = Network expansion panel 04, 08 or 16 relay only (no display or keypad).

Blank = 120/ 277 VAC
347 = 120/ 347 VAC

Add-on Modules

Input Module (AP3IM)

- Supplies up to 4 low-voltage inputs
- Momentary or maintained with 2 or 3 wire configurations
- 1 AP3IM is included in each panel
- Max per panel: AP3-04: 1, AP3-08: 2, AP3-16: 4, AP3-24: 6, AP3-32: 8
- Perfect for the GMDS-W switch from Cooper

Dimming Modules (LSDM-R)

- Each module provides 4 independent channels of 0-10v dimming
- Sink up to 100mA per channel
- Remote mounted only

Occupancy Module (LSOSM-R)

- 8 occupancy sensor inputs that provide up to 800mA across all inputs
- Conditional logic for each input which allows for "AND"/"OR" logic schemes
- Can be programmed to control any relays in any or all panels
- Remote mounted only

Photo Sensors (LSPSC-IND-R and LSPSC-OUT-R)

- Monitors light levels and allows the user to select 8 individual ON/OFF set points
- Indoor & outdoor versions available
- Includes photo sensor head
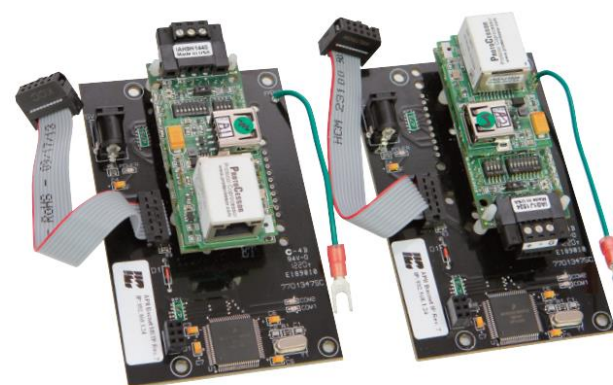- Remote mounted only

Add-on Modules (cont.)

Power Supply Repeater (LSPSR4)

- Required when there are more than 10 LightSync devices
- Provides power and data for an additional 20 LightSync devices
- One input and 4 outputs for going up to 4 directions

BACnet Interface (AP3BAC-IP and AP3BAC-MSTP)

- Allows integration with your BACnet control system
- Basic control & status
- Panel mounted

BACnet MSTP Board   BACnet IP Board

Compatible Wall Stations

Digital Switch (LSG3)

- Digital switch station comes pre-configured as a non-dim switch or multi-zone dimmer.
- Scene and Scene/MZD stations are not compatible
- LED status lights

Digital Key Switch (LSKS)

- Momentary or maintained key switch for ON/OFF operation
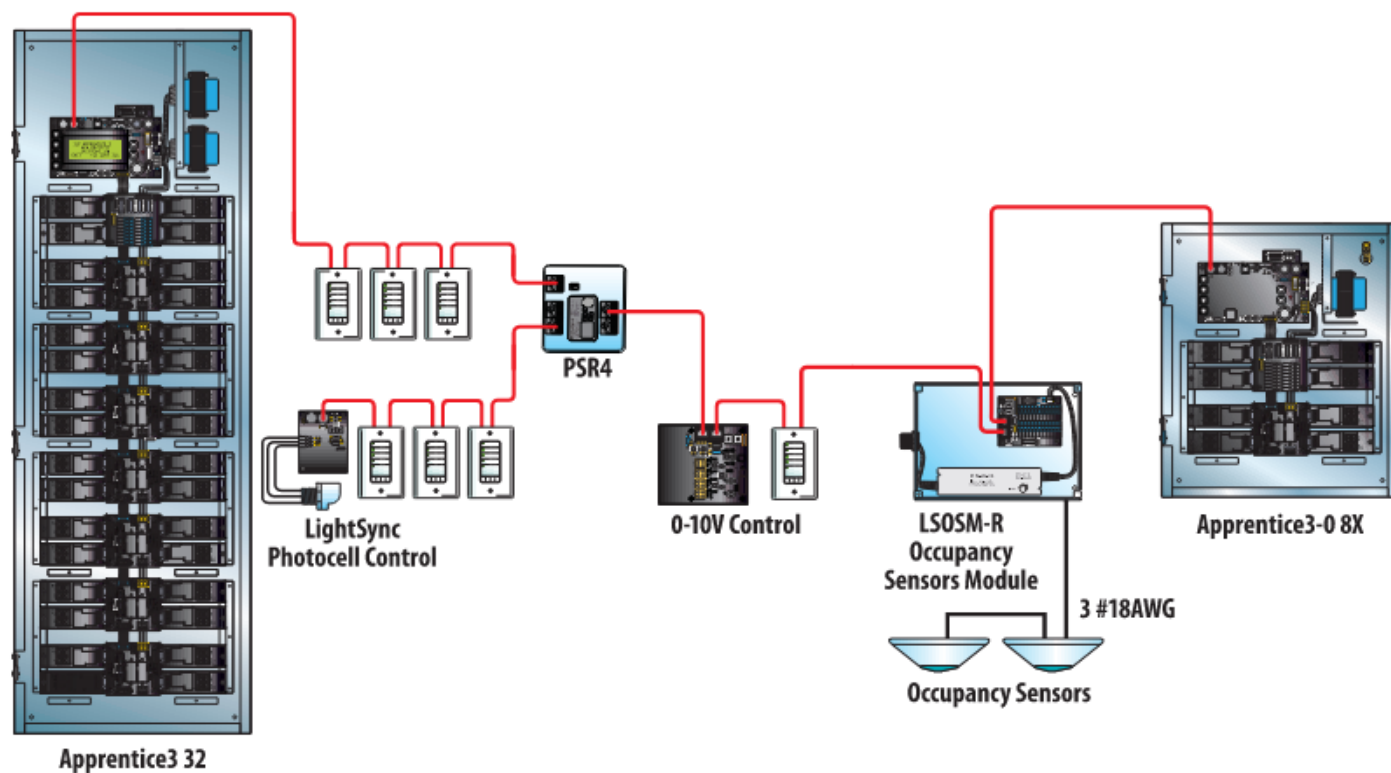- LED pilot light for current control status

Momentary Switch (GMDS)

- Momentary decorator switch from Cooper
- Tie into input module (AP3IM) via 2-wire connection

NOTE: Slide dimmers not recommended for AP3 applications

Example Riser

- All expansion panels, add-on modules, and digital switches daisy chain back to the standard panel with CAT-5
- Addressing of LightSync devices should follow the same hexadecimal system as LightLEEDer applications
- Standard panels and expansion panels are configured in the software and do not require a physical address

NOTE: Contact Chris Walker for AP3 AutoCAD Riser Builder
chris.walker@ilc-usa.com

800.922.8004 | www.ilc-usa.com

AP3 Start-up

Start-up

- Connect & Program AP3 panels and LightSync devices using a USB port on a laptop and our free Apprentice 3 Configuration Software.
- Please see our AP3 Essentials Start Up Guide for information on programming.
- **NOTE: ILC does not provide Factory Start-up (FSU) or Factory Submittal Package (FSP) for AP3 applications. Reps are allowed to quote Rep Start-up (RSU) at their discretion.**

Software download

1. Follow this link to the software downloads page https://www.ilc-usa.com/resources/softwaredownloads
2. Scroll down to the "Apprentice 3 Configuration Software (V1.02)" and select the file to download

| Apprentice 3 Configuration Software (V1.02) | • software downloads | AP3-4, AP3-8, AP3-16, AP3-24, AP3-32 | 🗎 pdf | 🗎 software |

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If further assistance is needed, please call ILC Tech Support:
952-842-2588