



USER GUIDE

An EssentialWhite™ Product

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- eW Flex SLX
- ITEM# 500-000007-00 (2700K, 4", Translucent Dome)
- 500-000007-01 (2700K, 4", Clear Flat)
- 500-000007-02 (2700K, 12", Translucent Dome)
- 500-000007-03 (2700K, 12", Clear Flat)
- 500-000007-04 (4200K, 4", Translucent Dome)
- 500-000007-05 (4200K, 4", Clear Flat)
- 500-000007-06 (4200K, 12", Translucent Dome)
- 500-000007-07 (4200K, 12", Clear Flat)

This product is protected by one or more of the following patents: U.S. Patent Nos. 6,016,038, 6,150,774 and other patents listed at <http://colorkinetics.com/patents/>. Other patents pending.

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Specifications subject to change without notice. Refer to www.colorkinetics.com for the most recent version.

INTRODUCTION

Color Kinetics® eW™ Flex SLX is a flexible LED string lighting solution that is a bright white-light version of the popular iColor® Flex SLX. Designed for accent or perimeter lighting or as a component of a custom fixture, eW Flex SLX light string provides lighting professionals with a "building block" for the design and creation of custom applications. This guide contains important information about installing and operating your new eW Flex SLX light strings safely and accurately.

Included In this Box

- (1) eW Flex SLX light string (50 nodes)
- (1) Extra Termination cap (for field cutting, if needed)

Additional Items Needed

- Node Mount Hardware: #6 flat head screw
- Electronic grade RTV Silicone (UL recognized)
- PDS-60ca 24V Power Supply, ITEM# 109-000016-00/01/02 or sPDS-60ca 24V Power/Data Supply (ITEM# 109-000021-02). One PDS-60ca 24V or sPDS-60ca 24V power/data supply is needed for every single string of eW Flex SLX. (Maximum nodes per PDS-60ca 24V or sPDS-60ca 24V: 50).
- Tools (screw gun, stapler, pliers, wire cutters, flat screw driver)

Optional Items

- eW Flex SLX Mounting Track ITEM# 101-000057-00.
- eW Flex SLX Single Node Holder ITEM# 101-000058-00.
- eW Flex SLX Track Covers ITEM# 101-000059-00.
- Track Hardware: Staples or flat head screws suitable for mounting surface.

Scope of This User Guide

The goal of this user guide is to explain the steps necessary to install eW Flex SLX and assure peak performance. Its intended use is for reference only, by a fully qualified electrician or technician. This document should never be considered a substitute for any provision of a regulation or state and/or local code.

Identification and Warnings of Safety Hazards

In accordance with ANSI Z535.4-2002 the following system of identifying the severity of the hazards associated with the products is used:

- “**DANGER**” Imminently hazardous situation which, if not avoided, will result in death or serious injury.
- “**WARNING**” Potentially hazardous situation which, if not avoided, could result in death or serious injury.
- “**CAUTION**” Potentially hazardous situation which, if not avoided, may result in minor or moderate injury or property damage. Also used to alert against unsafe practices.

IGNORING A HAZARD WILL VOID THE WARRANTY.

DANGER: Ensure that the main power supply is off before installing or wiring eW Flex SLX and the power/data supply.

WARNING: eW Flex SLX and the power/data supply must be installed by a qualified electrician or technician in accordance with NEC and relevant local codes.

WARNING: Do not attempt to install or use eW Flex SLX or the power/data supply until you read and understand the installation instructions.

WARNING: Do not use eW Flex SLX if any cables are damaged.

CAUTION: eW Flex SLX has no serviceable parts. Do not attempt to open the nodes.

CAUTION: Ensure that the mounting track, node holders, and eW Flex SLX are securely attached, properly mounted, and free of excessive vibration.

CAUTION: Do not use sharp tools near or on the fixture lens or cable.

CAUTION: Do not hot swap. Ensure that the power supply is off before connecting or disconnecting fixtures.

NOTE: The instructions and precautions set forth in this user guide are not necessarily all-inclusive, all conceivable, or relevant to all applications as Color Kinetics cannot anticipate all conceivable or unique situations.

Owner/User Responsibilities

It is the responsibility of the contractor, installer, purchaser, owner, and user to install, maintain, and operate eW Flex SLX in such a manner as to comply with all state and local laws, ordinances, regulations, and the American National Standards Institute Safety Code.

PLANNING THE INSTALLATION

The eW Flex SLX installation requires planning to ensure timely, successful installation and operation with minimal complications and down time.

Installation Considerations

- Consult an Electrical Inspector to approve all wiring plans.
- Refer to local and state codes for installation compliance.
- Create a Mapping Grid. Use this grid to record light addresses and power supply locations for easy reference.
- Consult Color Kinetics Application Engineering Services as needed at support@colorkinetics.com.

CONFIGURING eW FLEX SLX

The way in which eW Flex SLX is addressed depends on the method of control and the power/data supply that you choose.

DMX Control: The DMX interface is used for installations using a DMX controller, such as an iPlayer 2, ColorDial, or a third party DMX controller.

Ethernet Control: The Ethernet interface is designed to work with Light System Manager or Video System Manager for large installations.

Preprogrammed Control: The preprogrammed unit is best suited for installations using simple effects across all light nodes. The preprogrammed unit controls a maximum of 50 nodes. The preprogrammed shows will vary the intensity and sweep of light across the string.

STEPS TO A SUCCESSFUL INSTALLATION

1. Determine the location of the power supply(s).
2. Install the tracks and/or individual mounts.
3. Install the eW Flex SLX.
4. Connect the eW Flex SLX to the power/data supply.
5. Connect data.

Details for each step are provided in the following sections.

Determining the Location of the Power Supply(s)

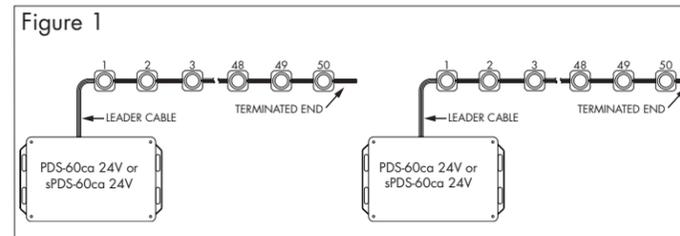
WARNING: Each light node in this product includes electronics which can fail, resulting in extreme heat. Keep nodes away from flammable materials. Failure to do so could result in death or serious injury and will void the warranty.

WARNING: eW Flex SLX should be installed by a qualified electrician or technician in accordance with NEC and relevant local codes. Failure to comply could result in death or serious injury and will void the warranty.

WARNING: Ensure the power is off before installing eW Flex SLX. Failure to do so can result in serious personal injury and major property damage and will void the warranty.

CAUTION: Do not hot swap. Ensure that the power supply is off before connecting or disconnecting fixtures. Hot swapping will result in property damage and void the warranty.

1. Determine a location out of direct view for the power supply(s).
 - One PDS-60ca 24V or sPDS-60ca 24V power/data supply is needed for every single string of eW Flex SLX (50 nodes max.). See Figure 1.



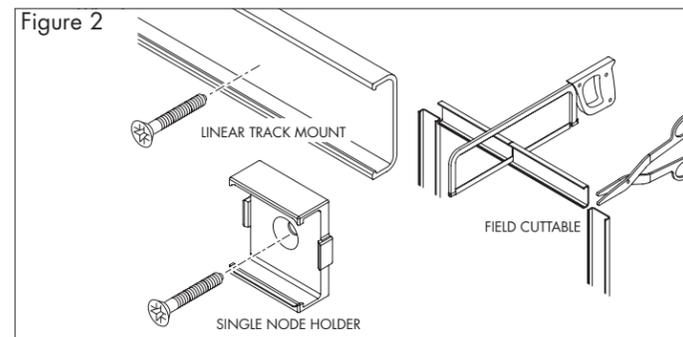
- The power/data supply must be located within 50 feet (15 m) of the first node in the series.

NOTE: Nodes are sequentially addressed going away from the power/data supply. Therefore, placement of the power/data supply in relation to the light nodes and desired effects is critical, especially when using the preprogrammed effects. See Figures 1.

2. Using a pencil or chalk line, mark a centerline path for the nodes to follow. For linear installations, the eW Flex SLX Track is ideal for maintaining linear alignment and cable management. Single Node holders work well with complex geometries. Install the eW Flex SLX on horizontal or vertical surfaces to accommodate your lighting environment.

Installing Tracks and/or Individual Mounts

Tracks: The plastic track can be cut to length in the field. Cut track to desired length. Using flat head screws suitable for the mounting surface, drive screws through the plastic track into the mounting surface. Recommended maximum spacing between screws is 16 inches (41 cm). See Figure 2.



Single Node Mounts: Using double sided tape on the base of the mount, adhere the single node mounts to the mounting surface. Reinforce installation with #6 flat head screws suitable for mounting surface. See Figure 2.

NOTE: Ensure that the distance between single node holders accommodates the cable length from node to node and allows for cable bending when necessary. Use caution to avoid cable strain.

Installing eW Flex SLX

eW Flex SLX can be cut to desired node length. After cutting, you must seal the cable end. When possible, cut and seal the cable prior to installation.

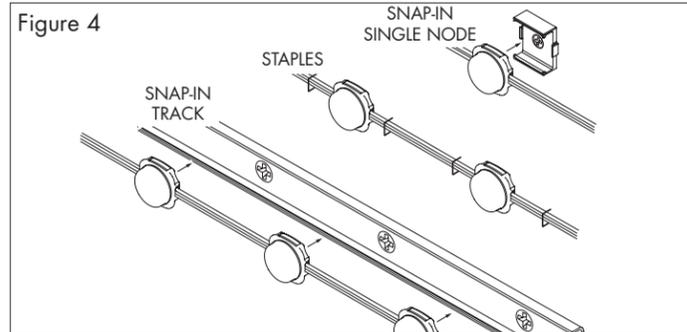
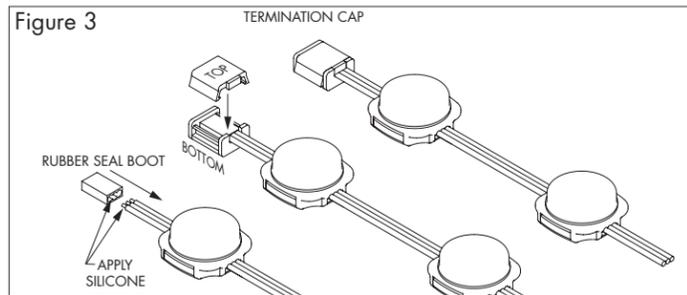
- Using a wire cutter, cut the cable leaving as least one inch of cable after the last node.

NOTE: Ensure that the cut is clean and that there are no frayed wires touching other wires.

WARNING: Ensure the power is off before cutting eW Flex SLX. Failure to do so could result in death or serious injury and will void the warranty.

CAUTION: Do not cut leader cable. Doing so may result in minor or moderate injury or property damage and will void warranty.

- Apply a liberal amount of RTV silicone to the cable ends and to the opening of the rubber seal boot. Insert the boot onto the cable.
- Sit the sealed cable boot into the base of the termination cap provided with eW Flex SLX. Never try to reuse a termination cap.
- Firmly press the termination cap top onto the base until the top snaps into place. If using pliers, use caution not to crack the housing. See Figure 3.
- When using the track or single node mounts, simply push the light nodes into the mounts. See Figure 4.



- When not using the optional node and track mounts, eW Flex SLX can be installed using 1/2" insulated electrical staples. See Figure 4.

Caution: When using staples to install eW Flex SLX, ensure that the staple does not pierce or damage the cable. Failure to do so may result in minor or moderate injury or property damage and will void the warranty.

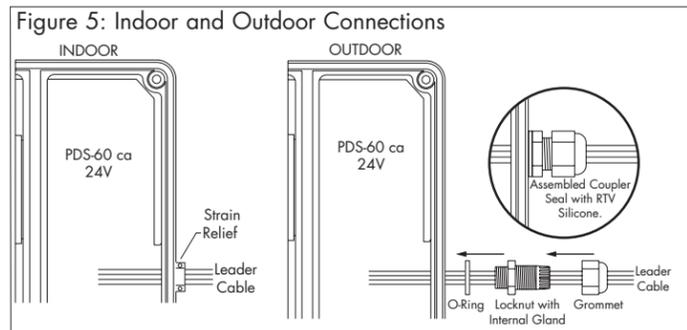
Connecting eW Flex SLX

The PDS-60ca 24V can be used either indoors or outdoors, while the sPDS-60ca 24V can only be used indoors. This section describes how to connect each power/data supply to the fixtures.

Connecting to the PDS-60ca 24V

1. Insert the eW Flex SLX leader cable into the power out/data connection chamber of the power/data supply.

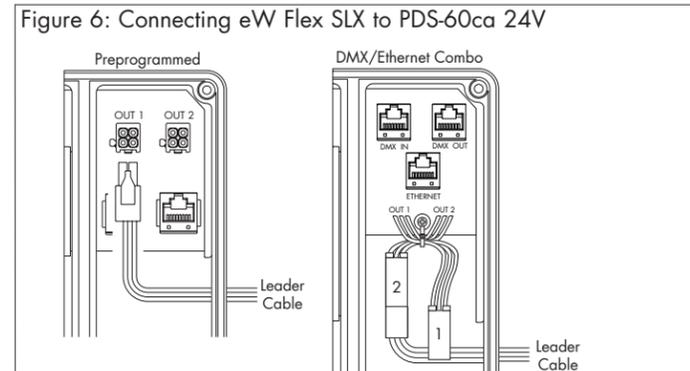
- For indoor rated fixtures, use a standard screw connector strain relief to hold the cable. See Figure 5.



- Outdoor rated fixtures have water-tight couplers on the cables. Ensure that the water-tight coupling is properly installed and sealed with RTV Silicone to ensure NEMA 4 protection. To make the watertight connection:
 - Separate the watertight grommet and locknut.
 - Insert the locknut through the O-ring and into the conduit hole and tighten. Tighten until the O-ring is engaged.

- Ensure that the cable inside of the power/data supply has slack, then tighten the grommet over the locknut. Tighten until the cable is held secure and is functioning in strain relief capacity. The O-ring and internal gland nut must be engaged to create a water-tight seal. See Figure 5.

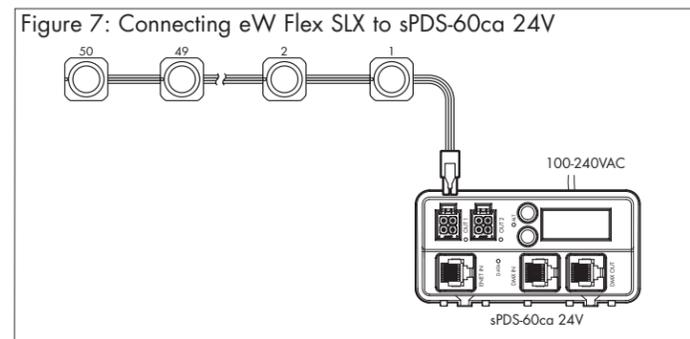
2. Plug the connector on the leader cable into a power output receptacle in the power/data supply. Power outputs on the PDS-60ca 24V are labeled Out 1 and Out 2. See Figure 6.



Connecting to the sPDS-60ca 24V

The sPDS-60ca 24V is rated for indoor use only.

Plug the leader cable into a power output receptacle in the power/data supply. Power outputs on the sPDS-60ca 24V are labeled Out 1 and Out 2. See Figure 7.



Connecting Data

- Data is connected to the eW Flex SLX via the power/data supply.
- Data connections vary depending on the type of data used and the power/data supply used. See the figures below.
 - Figure 8: Preprogrammed Control (using PDS-60ca 24V)
 - Figure 9: DMX Control (using PDS-60ca 24V)
 - Figure 10: Ethernet Control (using PDS-60ca 24V)
 - Figure 11: DMX Control (using sPDS-60ca 24V)
 - Figure 12: Ethernet Control (using sPDS-60ca 24V)

For complete instructions and wiring diagrams for your power/data supply, refer to the appropriate power/data supply user guide and wiring diagrams.

If any problems occur during usage, unplug the product immediately and call or email:

Color Kinetics Technical Support Group:
1-888-FULL RGB or 617-423-9999 or
www.colorkinetics.com/support

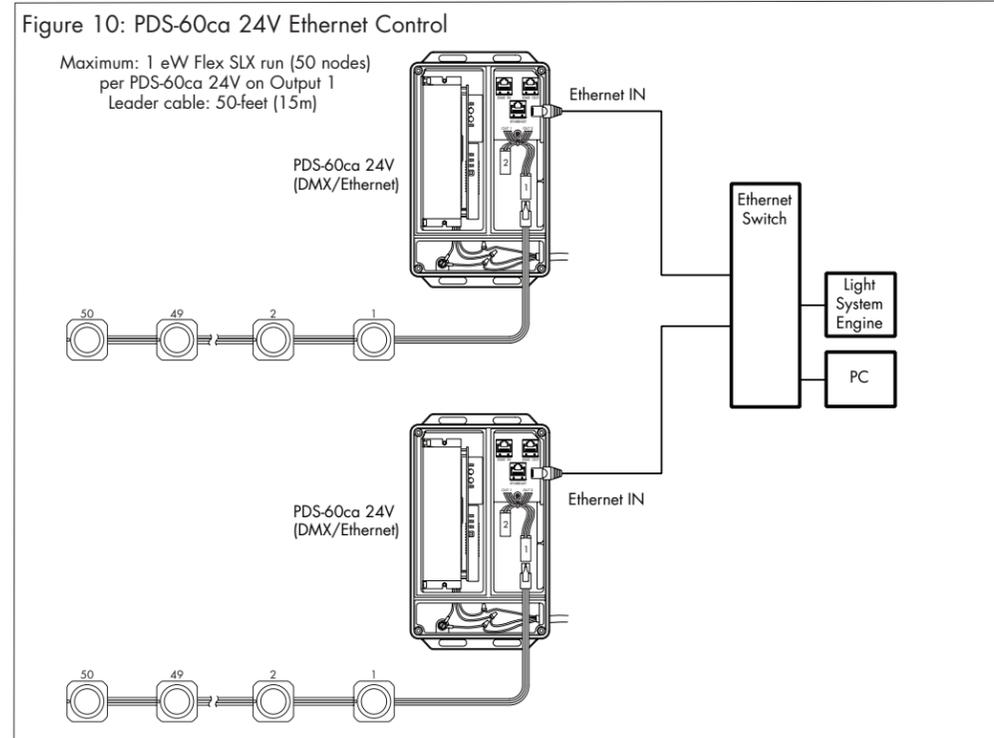
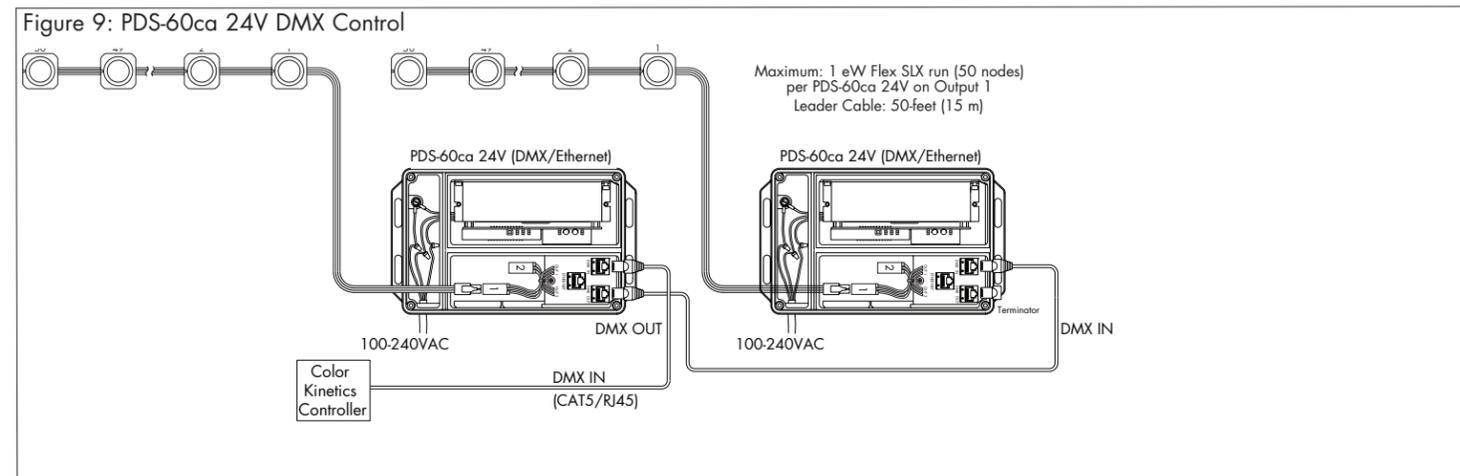
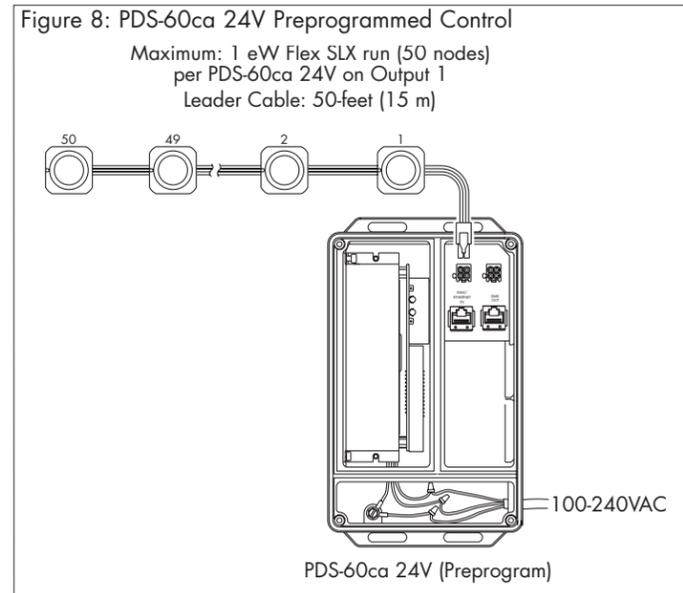


Figure 11: sPDS-60ca 24V DMX Control

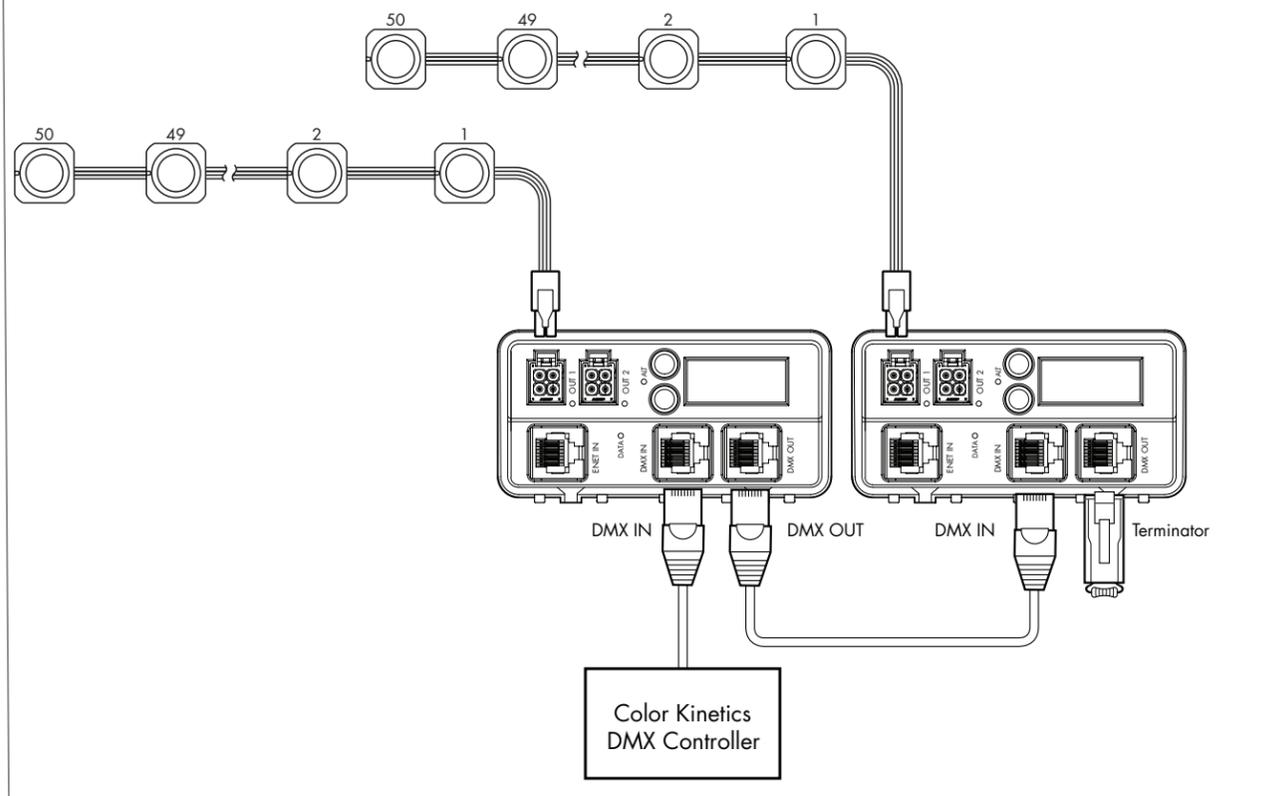
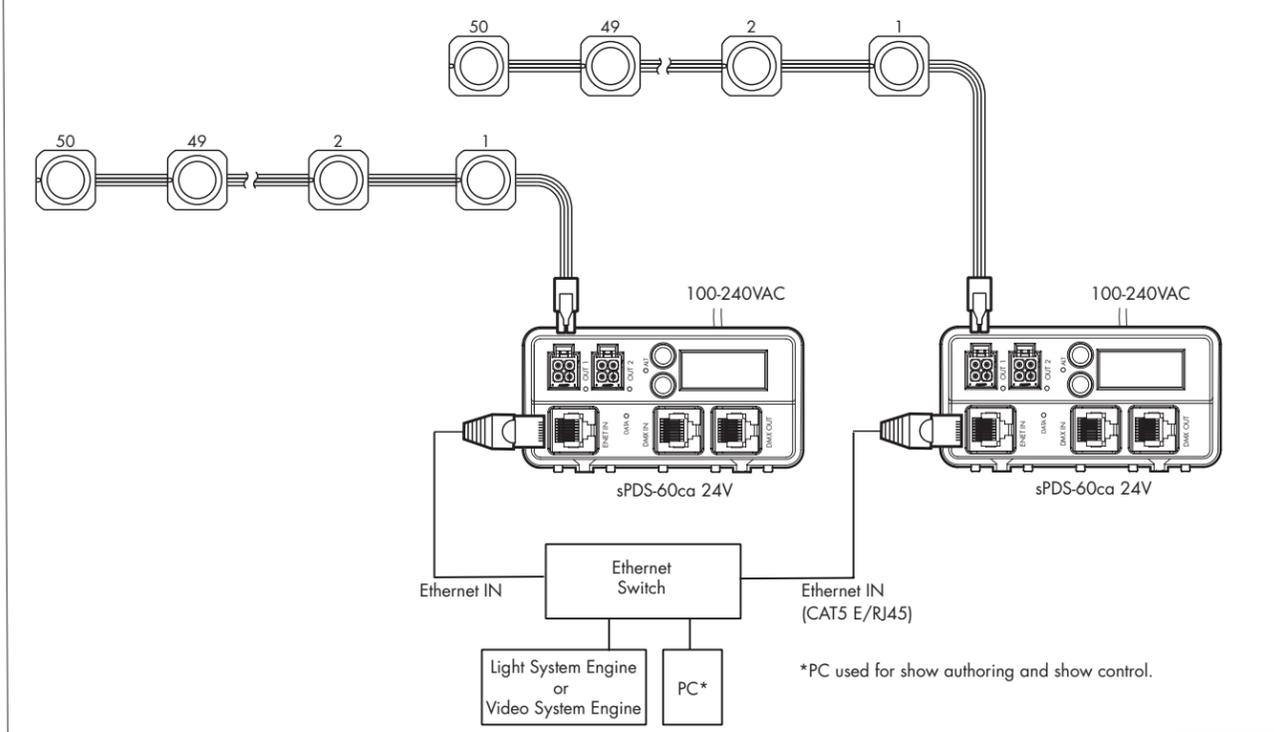


Figure 12: PDS-60ca 24V Ethernet Control



eW FLEX SLX SPECIFICATIONS

COLOR TEMPERATURES	2700K or 4200K
SOURCE	50 Nodes; each with 5 White LEDs
AVAILABLE IN	Clear flat lens or Translucent domed lens
HOUSING	Polycarbonate, approx. 1.10" x 1.22" x .56"H (2.97 cm x 3.12 cm x 1.4 cm)
LISTINGS	UL/cUL, CE
COMMUNICATION SPECIFICATIONS	
DATA INTERFACE	Color Kinetics data interface system
CONTROL	Ethernet, DMX512 or Preprogrammed
ELECTRICAL SPECIFICATIONS (LIGHTS)	
POWER REQUIREMENT	24VDC
POWER CONSUMPTION	50W Max. at full intensity, per 50 node string
POWER SUPPLY	PDS-60ca 24V (Item#: 109-000016 -00/01/02) sPDS-60ca 24V (Item#: 109-000021-02)
ELECTRICAL SPECIFICATIONS (POWER/DATA SUPPLY)	
POWER INPUT	100VAC to 240VAC auto ranging (50Hz-60Hz) Power factor correction (PFC)
POWER OUTPUT	24VDC
HEAT DISSIPATION	25 percent of total power output
HOUSING	NEMA 4 indoor/outdoor rated enclosure
CONNECTORS	Data: RJ45 input/output connectors; Power: 4-pin connector
ENVIRONMENTAL SPECIFICATIONS	
TEMPERATURE RANGE	-40°F to 122°F (-40°C to 50°C) operating temperature
PROTECTION RATING	IP66

LED SOURCE LIFE

In traditional lamp sources, lifetime is defined as the point at which 50% of the lamps fail. This is also termed Mean Time Between Failure [MTBF]. LEDs are semiconductor devices and have a much longer MTBF than conventional sources. However, MTBF is not the only consideration in determining useful life. Color Kinetics uses the concept of useful light output for rating source lifetimes. Like traditional sources, LED output degrades over time (lumen depreciation) and this is the metric for SSL lifetime.

LED lumen depreciation is affected by numerous environmental conditions such as ambient temperature, humidity, and ventilation. Lumen depreciation is also affected by means of control, thermal management, current levels, and a host of other electrical design considerations. Color Kinetics systems are expertly engineered to optimize LED life when used under normal operating conditions. Lumen depreciation information is based on LED manufacturers' source life data as well as other third party testing. Low temperatures and controlled effects have a beneficial effect on lumen depreciation. Overall system lifetime could vary substantially based on usage and the environment in which the system is installed.

Temperature and effects will affect lifetime. Color Kinetics rates product lifetime using lumen depreciation to 50% of original light output. When the fixture is running at room temperature using a color wash effect, the lifetime is in the range of 30,000-50,000 hours. This is based on LED manufacturers' test data. For more detailed information on source life, please see www.colorkinetics.com/lifetime.

WARRANTY

This product is sold pursuant to CK's Standard Terms and Conditions (the "T&Cs") which may be found at <http://colorkinetics.com/howtobuy/buy/terms> and which contain important provisions, including, among others, Limited Warranty, exclusions and limitations on CK's liability for damages, and restrictions on the remedies that are available to you.