ILC-460/461™ Intelligent DMX Decoder

Native DMX-C™ support from Crestron's DIN-GWDL / Enhanced DMX support from ETC or other DMX-512 Systems for Clarte Lighting's Absolute Light Fixtures

Remote Power/Control for multiple full-color constant current Class 2 LED fixtures

Multiple fixtures can be connected to a single ILC-460 up to 230 feet away from controller

Build in CCT and Circadian color computer

DIN-Rail form factor can be remotely mounted for group fixture control

Gamma-corrected Color Output for the smoothest dimming to .001% totally without Flicker

21+ Embedded DMX Personalities

Product Description

Background

The ILC-46x™ is a DIN-rail mounted DMX512-A-RDM decoder that is designed to support 1 or more (typically up to 4 but with some fixtures even more) *remote* CLASS 2 supported luminaires (fixtures) without the requirement of any additional power connections. Unlike standard DMX decoders that typically only control R/G/B/W components (without a color computer or gamma correction), the ILC-460 embeds a 32-bit sophisticated color computer that enables Hue Accurate Dimming without color shift, .001% flicker-free dimming, and precise gamma correction for all connected fixtures(s). A rich complement of 21+ DMX embedded Personalities enables the decoder to perform accurately across multiple color spaces (**HSV**, **RGBW**, while providing accurate calibrated Color Temperature/**CCT** output and innovative calibrated **Circadian** capabilities) and ensures device compatibility with nearly any DMX Encoder (DMX Master) available in the market. Sophisticated color management technology derived from Converging Systems' seminal work in the color graphics and color printing industries allows cross-platform compatibility with **Crestron** (using the Crestron DIN-GWDL gateway supporting the Crestron DMX-C protocol) as well as with **All other** lighting/automation/theatrical panel platforms using third-party DMX encoders or Converging Systems' e-Node 2100/4100 gateways.
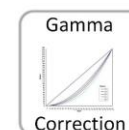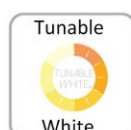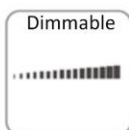
Easy Setup and Configuration

The controller's incredibly small size enables the unit to be positioned seamlessly within a soffit, equipment rack, J-Box or control panel separate from the fixture(s) themselves. When used with Crestron Home™, no additional set-up is required. The Crestron Home processor automatically handshakes with the ILC-46x and auto-configures all required parameters as appropriate. For other platforms, a built-in microprocessor allows easy remote programming using RDM that allows nearly seamless setting of starting DMX addresses & DMX personalities using popular RDM tools from City Theatrical, Swisson or similar devices.

Operation/Applications

The system is designed to operate either as an integrated DMX decoder placed near or *up to 230 feet away* from connected fixtures. Connectivity with Crestron Home & Crestron's DIN-GWDL (DMX encoder) is seamless and requires no additional equipment or RDM tools. Connectivity with other lighting/automation systems (Lutron, NICE/Elan, Control4, RTI, Savant, URC, etc.) is possible through a single Converging Systems e-Node 2100/4100 DMX Gateway (encoder) or other popularly available DMX decoders available in the marketplace. The DMX512-A standard permits up to 32 ILC-460 DMX decoder to be daisy-chained without the use of an optical splitter.

Feature

- 21+ DMX Personalities including HSV, CCT, RGBW, RDM selectable
- Full tunable white (1600K to 7000K) and Circadian Color control (measurement from Big Island, HI/ natural sun measurements)
- Remote Class 2 configuration—all connected fixtures need no supplemental Class 1 or Class 2 power
- Choice of dual RJ-45 (ILC-460) or dual "Phoenix-type" screw connectors for DMX I/O (ILC-461)

- Embedded 32-bit color computer
- Fixtures can be placed up to 230 feet from each (head-end) ILC-46x which can be placed in lighting rack or electrical panel
- One to four (and even more in some cases) fixtures can be connected to each ILC-46x
- .001% dimming (64K dimming steps-compared to 100 or 200 with standard DMX systems)
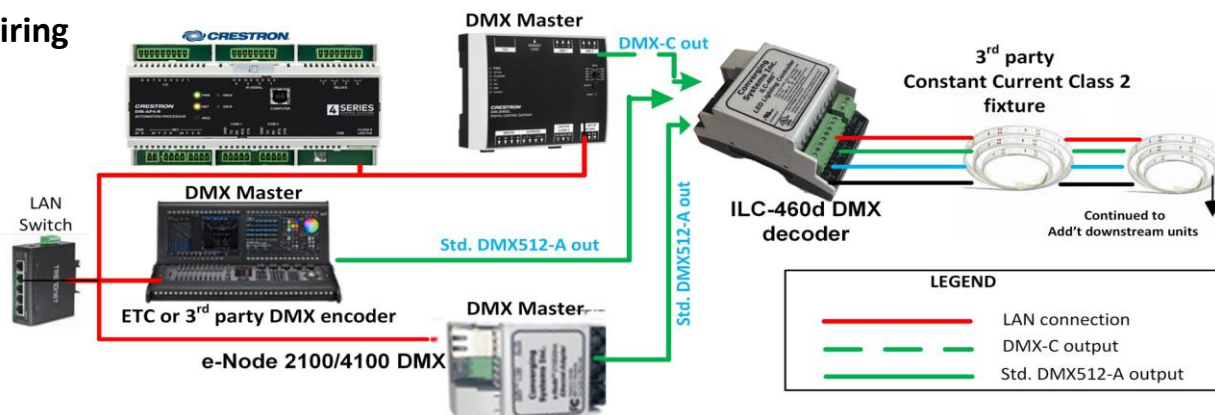- Designed and Manufactured in California

Hue Accurate Dimming	Dimmable	Full Color	Tunable	Circadian	Support	Gamma	Safety	Philips
No Color Shift Dimming		16.7M	White			Correction		License

Specifications

Feature	Detail
DMX Decoder for remote Class 2 fixtures	Fixture Compatibility[1] -Absolute Light 5-wire fixtures -Absolute Light 8-wire fixtures -Consult factory for other Constant Current fixtures
RDM Support	Parameters can be set up remotely using standard RDM tools available from City Theatrical, Swisson and others
Current Sensing	Built-in current sensing circuitry automatically shuts off system in case of faults or shorts
Failsafe I/O	Unique circuitry automatic component protection in case of shorts or faults on connected fixtures
Platform Compatibility	-DMX512-A-RDM compatible -Crestron Native support with Crestron DIN-GWDL -Crestron Naïve support with e-Node 2100/4100 without the DIN-GWDL -Converging Systems' e-Node 2100/4100 DMX gateways
Communication (between ILC-46x and DMX Master devices)	Cat 5 or similar twisted-pair wiring conforming to DMX-512A wiring can be run between the DMX master (encoder) and the first ILC-46x (and each connected ILC-460 downstream)
Model Numbers -ILC-460 (DMX I/O –RJ-45) -ILC-461 (DMX I/O-Screw-type)	ILC-460 uses 2 x RJ-45 females ILC-461 uses 2 x hi-density 3-pin "Phoenix"-type screw conn.

Feature	Detail		
Power Requirements **Note**: DC Class 2 power is only required for (**each**) ILC-46x. No additional AC or DC power is required for attached fixtures	PSU	Par 16 *fixtures	Other fixtures
	24Vdc/96watts	1-2	**
	48Vdc/96watts	3-4	**
	*Standard output is 700/800 ma per channel **Consult factory		
Adjustment Precision	Variable as per DMX personality (ranges from 8 to 16-bit per parameter)		
RDM Control/Setup	-Starting DMX address -Selection of any one of 21+ DMX Personalities		
CRI measurement Lumen Output	➢ .90% and typically >96% ➢ Consult Fixture vendor		
Size Weight Manufacturing	➢ 3.53"(89.66mm) x 1.40" (35.56mm) x 2.39" (60.71mm) (not including extendable DIN lugs) ➢ 3.3 oz. (93 gm) ➢ Designed and Manufactured in CA		
Compliance	UL Listed (UL File 2108). CSA (C22.2#9.0),RoHS, PCB UL-94VO certified. Rated to work with UL-rated Category 2 power supplies (PSU),		

Overview

Wiring

Application

The ILC- x00 family of LED controllers and associated LED luminaires of single color, full color and adjustable color temperature are ideal for a variety of applications. They are widely used in a variety of application areas where *precise color settings*, *3rd-party lighting and automation control, networkable functionality, expandability* and *bi-directional feedback* are demanded. You application may be easily adapted from our core technology. Contact us for more information.

Note: [1] Contact factory for specific fixtures supported, maximum number of fixtures per controller, required power supplies and wiring directions.

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