

EPL-ADC-48-2L-LED-D-V2

Explosion Proof LED Paint Spray Booth Light - C1D1, C2D1 - Dimmable - DALI Network

Product ID: 153745



Larson Electronics LLC manufactures a wide variety of products, including custom built to spec designs. The pictures displayed for this unit are a general representation of form factor for the product line and may not accurately represent this exact configuration in every detail due to custom builds and changes between similar products in our standard catalog. The specifics for this configuration are listed in the specification table and supporting documentation (CAD files, Dimensional Drawing, Name Plate Diagram, Wiring Diagram, etc.). This means that specific details (receptacles, plugs, wires, connections, mounting brackets, external finishes, etc.) may not be accurately represented in images vs specifications. Please review specifications and do not order based solely on images.

Specifications / Additional Information

EPL-ADC-48-2L-LED-D-V2 Explosion Proof LED Fixture

NRTL Listed for United States & Canada

Dimensions: W-11.25" x L-52" x H-8.5 "

Weight: 55 Lbs.

Voltage: 120-277V

Total Watts: 56 watts (28 Watts Per Lamp)

Total Lumens: 7,000 (2,875 Per Lamp)

LED Lamp Life Expectancy: 50,000+ Hours

Luminous Efficacy: 125 Lumens per Watt

Color Temp: 5600K, 4500K, 3000K

Color Rendering Index: >80

Beam Angle: 150°

Power Efficiency: 90%

Power Factor: >0.95

Ambient Operating Temp Range: -30° C to +85°C

Operating Temp Rating: T6 Rated

Minimum Operating Temp: -30°C

Maximum Case Temp: +90°C

Housing Material: Cast Aluminum End Caps, Aluminum Reflectors - Copper Free

Lens Material: Hardened Borosilicate Glass Tubes

Gasket Material: Buna Rubber O-Rings

Mounting: Surface Standard - Pendant Optional

Wiring Hub: 1/2" NPT

Ratings/Approvals

Class 1 Division 1, Groups C and D T6

Class 1 Division 2, Group A,B,C,D

Class 2, Division 1 & 2, Groups E,F,G

NRTL Certified to UL 595 Marine Type (Saltwater)

NRTL Certified to UL 844

NRTL Certified to UL 1598 Marine Type

Certified Canadian Standards

Listed for Paint Spray Booths

California Title 24 Compliant

IP67 Rated - Waterproof

T6 Temperature Rating

NEMA 4X

LEL Listed LED Lamps

Approved for Confined Spaces

Silicone Free

0-10V Dimmable

Factory Sealed Fixture

Made in the USA

Password Protected Network Controls

No Programming Required

Modbus TCP/IP Connectivity

DALI or Push Dim

PWM Output Signal

Signal Converter Specs

Watts: 0.5W

Input Voltage: 90-306V AC or 127-431V DC @ 47- 63Hz

Current: 0.1A

Input Signal: DALI or Push Dim

Output Channels: 4

Output Signal: PWM

Output Logic: Active High or Active Low

Dimming Range: 1-100%

Relay Switch: 240V AC, On/Off

Operating Temperature: -30° to +60°

Housing Material: Fully Isolated Plastic

Connection: Terminals (TB1, TB2 and JP1)

Analog Output Module Specs

Dimensions: 1.41" x 3.88" x 3.1"

Weight: 4.8 oz

Network Type: 10/100 Base-T Ethernet Port (Static IP address assignment or DHCP, HTTP Port Selectable)

Protocols: HTTP, XML, Modbus TCP/IP

Voltage: 9-28V DC

Max Current: 92mA-163mA @ 24V DC (10 Mbps Network Speed; 126mA-198mA @ 24V DC (100 Mbps Network Speed)

Configurable Channels: 5

Output Ranges: 0-5V, 0-10V, $\pm 5V$, $\pm 10V$, 4-20mA (Software Selectable)

Resolution: 16-bit DAC (0-65535)

Current Output (Voltage Mode): 10mA Max (Min Load = 1K), 30mA Max Short Circuit

Voltage Output Inaccuracy: $\pm 0.2\%$ FSR Includes Offset Error, Gain Error and Non-linearity Error

Max Load Capacitance: 20nF (no load), 5nF (1K load)

Current Output Range: 4-20mA

Output Compliance Voltage: 11.50V Minimum

Isolated Power Supply: Internal DC to DC Converter

Isolation: Galvanic, 1500V AC

ESD Protection: Integrated, 15kV Protection

Output Protection: Integrated Over-temperature, Open-line and Short Circuit Protection

Output Alarms: Open Current Loop, High Internal Temperature

Output @ Power Up: Programmable

LED Indicators: (8) Power On, Fault Condition (Channels 1-5), Network Linked, Network Activity

Operating Temperature: -40°C to 65.5°C

Housing Material: Lexan 940 Polycarbonate Plastic

Mount: Surface, Wall or DIN Rail

Password Protection: Yes @ Setup (Base 64 Encoding, 13 Characters)

Connectors: 12-position/Removable (Power/Outputs), 8-pin RJ-45 (Network)

Special Orders - Special Requirements

Contact us for special requirements

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Made in the USA

The Larson Electronics EPL-ADC-48-2L-LED-D-V2 Explosion Proof LED Paint Spray Booth Light is a NRTL Listed to United States and Canada connected lighting solution for Class 1 Division 1 & 2 and Class 2 Division 1 and 2 locations. Equipped with a DALI-PWM signal converter, this explosion proof LED light has a T6 temperature rating and carries a paint spray booth light certification. Controls for the dimmable explosion proof LED unit is facilitated by an analog output module using Modbus TCP/IP protocol. No programming is required during setup.

This four foot, two lamp dimmable LED fixture is ideal for operators seeking a top quality explosion proof light that will reduce operating costs, improve lighting

quality and reduce downtime incurred from frequent servicing intervals. The EPL-ADC-48-2L-LED-D-V2 is equipped with Larson Electronics' specially designed dimmable LED T-series bulbs which produce 7,000 lumens.

This two lamp explosion proof LED linear fixture is lighter in weight, has a slimmer profile, and produces more light than traditional explosion proof fluorescent fixtures. The four foot long LED tube design bulbs included with this unit are rated at 50,000 hours of service life, which is over twice as long as standard T8 bulbs. This fixture carries a T6 temperature rating and is approved for Class I Division 1, Groups C and D, Class I, Division 2, Group A, B, C and D, and Class II, Division 1 and 2, Groups E, F and G environments where flammable or combustible gases, vapors, dusts, fibers, and flying exist or stand the potential to exist. This LED linear fixture is approved for use in confined spaces. [Click here to read the NEC description for explosion proof and hazardous locations.](#)

Aevum Network Controlled Lighting Solution: The Aevum Network Controlled Lighting Solution from Larson Electronics enables connected and intelligent illumination using cutting-edge and existing networks. Using Modbus TCP/IP or DALI (for fixtures with dimming features), businesses can seamlessly control lights and sensors from remote locations, without traditional light switches. Web-based panels facilitate real-time monitoring of connected equipment and allows operators to switch units on/off, configure activation settings and more. Businesses may utilize their own systems and software with these controllers, ensuring robust flexibility and cost savings (no contracts). The Aevum Network Controlled Lighting Solution can improve productivity in the workplace by automating basic lighting controls and making lighting controls widely accessible in the facility, via local networks or the internet. Operators also have the option to monitor the status of fixtures from a remote location, which can improve maintenance and reduce downtimes. Larson Electronics offers equipment and accessories required for a DALI network.

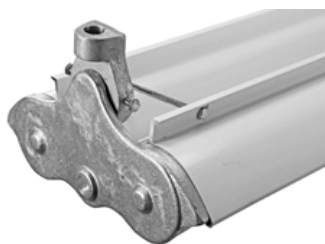
Controls: Controls for the LED fixture is accessible using a web-based control panel. Compatible with HTTP, XML, or Modbus TCP/IP protocols, network configuration is accessible using web-based pages (no programming required). Operators can monitor or setup controls from a remote area using the internet or local IP network and any standard web browser. Protective features include: integrated 15kV protection (ESD protection), integrated over-temperature, open-line and short circuit. Output alarms can be set for open current loop and high internal temperature. LED indicator lights on the device provide the real-time information about power, fault condition for all 5 channels and network link/activity. Password protection for the setup page is available (13 characters maximum). Operators can upload scripts during setup using the web-based panel.

Signal Converter: The LED lighting system is equipped with a signal converter, which converts DALI signals to PWM signals. This component features built-in push dim functionality and a comprehensive dimming range of 1-100%. A total of four output channels can be found on the DALI-PWM signal converter. Selectable output PWM logic includes active high (factory setting) or active low.



Surface Mount

[Click Photo to Enlarge](#)



[Click Photo to Enlarge](#)





Pendant Mount

The included dimmable LED lamps have a 50,000+ hour service life, both of which result in extreme efficiency and greatly reduced maintenance costs. These fluorescent style LED lamps have internal drivers, eliminating external power components. The solid state design of the LED lamps give this fixture superior resistance to damage from vibration, extremes in temperature and a lamp service life over twice that of standard fluorescent bulbs. This second generation lamp is offered in 5600K cool white, 4500K natural white, and 3000K warm white. Our standard unit ships with 5600K unless different color temperature is specified.

These dimmable 28 watt LED tubes work with standard 0-10 dimming controllers. Lumen output is 125 lumens per watt for a total of 3,500 lumens per bulb. While fluorescent lamps are omni-directional and illuminate 360°, the LED style replacement lamps are directional and offer a 160° beam spread. This allows for directed illumination where it is needed and not wasting light via reflectors or over illuminating areas. This dimming LED tube uses electronic silicon control dimming. We have tested these lamps on all Lutron and Leviton electronic dimmers, such as the Leviton 6633-PLW. Please note: the dimmer switch must be installed outside the hazardous environment or use an explosion proof dimmer switch. Larson Electronics offers an explosion proof dimmer switch that can be installed within the hazardous location.

Unlike the glass tube design of traditional fluorescent lamps, these LED T-Style lamps have no filaments or fragile housings to break during operation. Instead of using a combination of gases to produce light, light emitting diodes (LEDs) use semi-conductive materials that illuminate when electric current applied and emitting light. The LED assembly is mounted to the "tube" constructed from extruded aluminum, with a polycarbonate lens protecting the LEDs. With LED lights, there is no warm up time or cool down time before re-striking and provide instant illumination when powered on, adding to the reliability of LED technology. By nature, LED light sources run significantly cooler than fluorescent lamps, reducing the chance of accidental burns and increased temperatures due to heat emissions. This solid state design of light emitting diodes provides a more reliable, stable, durable, and energy efficient light source over traditional fluorescent lighting.

The 28 watt LED lamps produce 30% more illumination than standard T8 bulbs while offering lower amp draw and increased reliability. Each lamp produces 3,500 lumens at 125 lumens per watt, for a combined 7,000 total lumen light output. An EPL-48-2L-T8 explosion proof fluorescent light, with a combined total of 64 watts, draws 0.54 amps at 120 volts AC. This LED version of the same light, with a total of 56 watts, draws only 0.47 amps at 120 volts AC at full intensity. The EPL-ADC-48-2L-LED-D-V2 operates on any voltage from 120V or 277V AC 50/60hz without any modifications.

Network: The analog output module is equipped with five configurable channels. This unit works with 10/100 Base-T ethernet ports and allows static IP address assignment or DHCP, HTTP port selectable during setup. Compatible with 9-28V DC, the module features a 12-position, removable connector for power and outputs, as well as an accessible 8-pin RJ45 port. Operators can mount the device on walls, surfaces or din rails for space-saving benefits.

Energy Consumption Comparison

	<u>T5HO</u>	<u>T8</u>	<u>LED</u>
Wattage	108 watts	64 watts	56 watts
Amp Draw @ 120V AC	0.90 amps	0.54 amps	0.47 amps

Amp Draw @ 220V AC	0.49 amps	0.29 amps	0.25 amps
Amp Draw @ 240V AC	0.45 amps	0.27 amps	0.23 amps
Amp Draw @ 277V AC	0.39 amps	0.24 amps	0.20 amps
Lamp Life Expectancy	20,000 hours	24,000 hours	50,000 hours
Operation cost per year(12hs/day @ 12c/kWh)	\$56.77	\$33.64	\$29.43

Our EPL-ADC-48-2L-LED-D-V2 LED light fixture is NRTL Listed for U.S. and Canada approved for use in paint spray booths. Please note, according to the NEC, using threaded rigid pipe does not require additional seal offs with this fixture. An EYM and seal off is necessary for flex conduit or other non-rigid pipe implementations.

Mounting Options: Unless otherwise specified, our standard, most popular configuration is the bracket end mounting shown enlarged below. We also offer a pendant mount for those needing to suspend the fixture away from the ceiling surface (i.e. suspend from pipe or conduit). Additional mounting configurations can be customized to meet the requirements on the application. Please contact us for special mounting configurations.

Adjustable Surface Mount Brackets: Each bracket is cinched to the bracket mounting peg on each side of the light. The angle of the bracket is set by tightening two cap screws on either side of the bracket. The cap screws act as a set screw. The bracket itself is mounted via a single bolt hole at the top the bracket. There are two brackets, one on each end of the light. Once the brackets are mounted to a surface (ceiling, floor or wall), the light fixture can be removed from the brackets by loosening the cap screws that hold the bracket to the mounting peg.

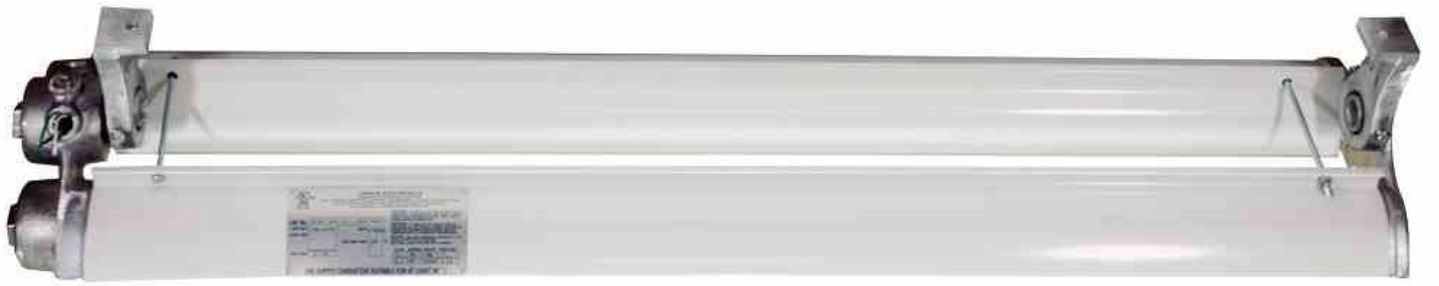
Suspension Mounting: Pendant mount fixtures hang from the ceiling and are suspended by rigid pipe. Each fixture features a 1/2" NPT junction box on one end, and a 1/2" NPT adjustable L-bracket on the other end of the fixture. Operators bring rigid pipe down to the threaded mounting hubs. Wiring is fed down through the rigid pipe to the junction box and tied in to the fixture's lead wires, completing the electrical connection. The adjustable L-shape mounting bracket provides support for the opposite end of the fixture.

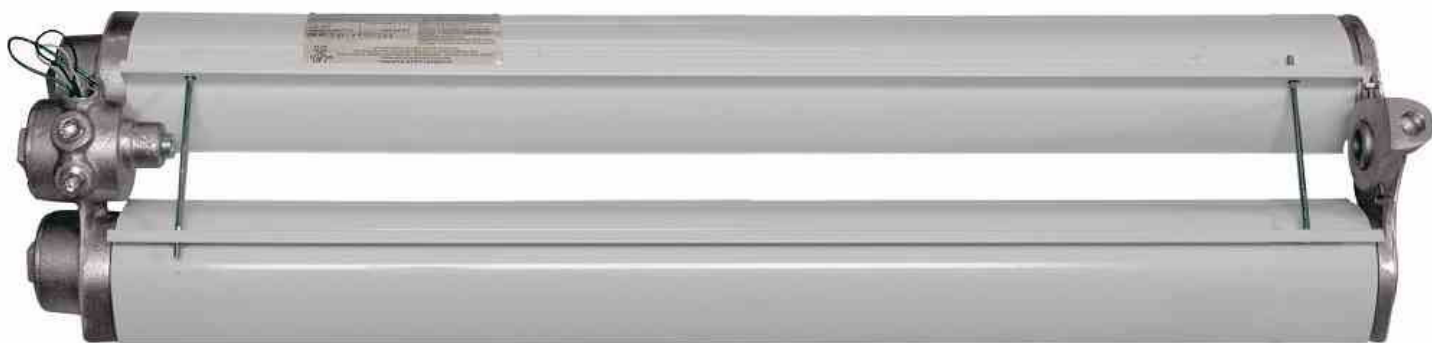
Suggested Applications: DALI lighting networks, remote lighting networks, warehouses, industrial buildings, paint spray booths, aircraft maintenance, oil drilling rigs, refineries, solvent and cleaning areas, chemical manufacturing, waste treatment plants, gas processing plants.

At Larson Electronics, we do more than meet your lighting needs. We also provide replacement, retrofit, and upgrade parts as well as industrial grade power accessories. Our craftsmen can custom build any lighting system and/or accessories to fit the unique demands of your operation. A commitment to honesty, quality, and dependability has made Larson Electronics a leader in the lighting and electronics business since 1973. Contact us today at 800-369-6671 or message sales@larsonelectronics.com for more information about our custom options tailored to meet your specific industry needs.









Frequently Asked Questions (FAQ)