

DL-RS Rigid Strip LED Series

What is it used for?

DL-RS Rigid Strip is a dimmable linear LED fixture suitable for wet, damp or dry locations. These fixtures can be used on the outside of buildings, in undercabinet, cove, soffits, and shelf lighting as well as backlighting of signs and panels. The DL-RS can be linked for longer runs.

What is unique about it?

The important differences between JESCO's DL-RS and other similar-looking products are as follows:

- 1) **UL listing** – We have several installation options specifically aimed at US residential and commercial NEC code compliant specifications.
- 2) **Complete Vertical and Horizontal Product Offering** – We offer the DL-RS series in nominal lengths of 12", 24", 36", and 48", in color temperatures of 2700°K, 3000°K, 4000°K and 6000°K; static colors of Red, Green, Blue and Yellow as well as a color changing RGB version.
- 3) **Product design** – These fixtures have the thinnest profile in the market today. Also, our unique plug and play system simplifies installation and is a favorite with installers across the country.
- 4) **Long runs** – These fixtures have a maximum run length of 24 linear feet.
- 5) **Accessories** – JESCO offers a deep line of wet location **accessories** with a multitude of contractor hardwire and plug-connected installation options all intended to simultaneously satisfy the designer, the installer and the electrical inspector - all while pleasing the owners bank account and eye.
- 6) **Simplicity** - The DL-RS is intended to take the complications out of using LED strip lighting. No more concerns about optional accessories such as channels, special connectors and lenses. Protecting the LEDs from dust and dirt compromising the tape is no longer an issue.

Can I dim it?

Can I connect it to my building control system?

Yes. JESCO's PWM (Pulse-width modulation) dimmer, the **LC-DIM-5A**, offers full range dimming. Options within our dimming products facilitate installation conditions ranging from a simple knob on a power cord (LC-DIM-5A), through to residential architectural wallplate dimming (LC-DIM-5A-HW & DS-DV-TV) and on through to the largest imaginable commercial building control systems (LC-DIM-5A-HW + any control system with 0-10V interface).

The DL-RS prefers to be controlled by 0-10V capable building control systems, but it is also able to communicate to **dimnable magnetic power supplies** as well as multiple other industry standard protocols, if need be.

From the very simplest knob mounted under a counter through to interfacing with complex energy management systems JESCO has a solution – contact JESCO customer service for assistance with your next lighting control specification. If you have any questions on dimming choices contact our technical department directly at support@jescolighting.com



How many dimming interfaces can I put on one wallplate dimmer?

JESCO has tested up to 7 x LC-DIM5A-HW interfaces per each 0-10V wallplate dimmer (LC-DIM-5A-HW & DS-DV-TV for instance).

In reality, because the [LC-DIM-5A](#) is a high impedance input product drawing only a few milliamps (~7mA) per device, it is likely possible to connect many more than 7 devices to most systems on the market. We have not tested operation beyond 7 devices at JESCO though.

The LC-DIM5A-HW is both a current-source and current-sink compatible device – enabling it to work successfully on most control manufacturer's equipment.

What is the standard operating voltage for the DL-RS?

24 volts DC is the standard operating voltage for the product line. For the DL-RS system we recommend our [DL-PS-xx/24](#) series of power supplies. Refer to the specification sheets for JESCO's DL-PS line of LED power supplies and drivers for more information.

Typically the necessary power supply will install on a single 15 or 20 Amp circuit.

24V power distribution was selected in order to render the longest, brightest and most consistently lit fixture runs while at the same time complying with the complex UL and NEC code restrictions you will come across on job sites.

JESCO DL-PS power supplies can operate at 120 volts, 277 volts and other European and international power utility company supply voltages. Many of our DL-PS plug-connected power supplies also have the ability to accept world-market power cords (by others) permitting operation in multiple territories with one single product – one product for the entire world in other words.

What is the maximum run length possible using DL-RS series?

The DL-RS is linkable and has a maximum run length of 24 linear feet.

This 24ft length refers to fixture length and does not include any connections between the fixtures thereby extending the overall reach of the product. The overall maximum reach needs to be determined by a qualified electrician based on layout of your run.

Is there a minimum installed run length for the DL-RS series?

The minimum installed length is 1 foot.

How can I mount the fixtures end-to-end without any gaps?

Each DL-RS comes with two, 2-inch lead wires providing a waterproof input and output connection. These wires exit the side of the fixture allowing for fixtures to easily mount end-to-end to form one continuous run which provides a uniform and unbroken output of light.



How can I connect lengths around obstacles?

Do you have a jumper cable?

The DL-RS product line has an extensive offering of [connecting cables](#) for every application – from 18” to 96”. Also, available are 2Y and 3Y power splitter cables for separating of runs.

How do I mount the DL-RS?

The DL-RS mounts with our mounting clips. Two 0° and two 45° clips are provided with each fixture, kit [DL-RS-MC-1](#). We also offer an optional kit of 90° and fully adjustable clips which help meet any mounting situation, kit [DL-RS-MC-2](#). Magnetic mounting strips, [ACC-MT-MAG-01-SET](#), are also available

Is the DL-RS waterproof?

Yes, the DL-RS is IP65 rated and designed for use in wet and damp locations.

Please note that the fixture cannot be submersed in water.

Can the DL-RS be mounted in indoor applications?

Yes. For another alternative please refer to our [SG-LED and SGA-LED](#) Sleek Ultra LED product line which is specifically designed for indoor installation applications.

Can I plug the DL-RS directly in to a standard 120V US outlet?

Yes, for indoor applications we provide desktop or wall plug drivers that produce the 24V DC power which plug into a standard wall outlet. See JESCO [DL-PS-xx/24](#) series of plug and play LED drivers.

Is there anything special I need to do when mounting the fixture outdoors?

Yes and No. There is no need to silicone around the fixture to keep it waterproof. All the LEDs have a transparent coating that protects them from dust, dirt, and water.

The main requirement is that the end of each run must be capped off using the Outdoor End Cap, [DL-PS-OD-EC](#), which is provided with each fixture. The other requirement is that the power supply and connection to the DL-RS is installed to meet local codes.

What gauge wire do I run between the LED and the power supply?

In order to eliminate voltage drop, cables specifications of 14/2 AWG and up are typically used.

Your contractor will assist you in specifying the correct gauge of cable required to remotely locate the power supply relative to your fixture location and to determine how to eliminate voltage drop from remote supplies.

Typically you should think in terms of 20’ – 50’ max feeds to/from remote locations, although any distance is theoretically possible with your contractor’s assistance in specification of correct supply cables.



What are the different colors of light offered?

We offer our LED fixture in a White Kelvin color temperatures of 2700°K, 3000°K, 4000°K and 6000°K.

The lower the color temperature the warmer the color - 3000°K is considered warm white and 6000°K is considered cool white.

We also offer the DL-RS series in monochrome colors – red, blue, green and yellow – see our specification sheets for details.

Lastly, we offer an RGB color changing version – refer to [DL-RS-xx-RGB](#).

Can I cover the LEDs with a lens?

Yes, the DL-RS comes standard without a lens but a white opal acrylic lens is available with the fixture by adding the code “-C” at the end of the fixture part number. The lens provides for an even glow exiting the fixture and greatly diminishes unwanted "point of light" visibility.

How do I replace the DL-RS?

Typically, you will not see any failures in our DL-RS for many, many years. In the rare event of a premature failure, a section can be replaced within an installed run by simply unplugging the bad section and replacing it with a new one.

What are the recommended applications for the DL-RS?

Recommended applications for the DL-RS series include outside of buildings, coves, display cases, offices, stores and restaurants, architectural features, corporate showrooms and exhibition display, counters, accenting point of purchase display, signage applications, backlighting of glass and acrylic panels or cut out forms, lighting toe-kick areas, undercabinet task lighting.

How long do your LEDs last?

JESCO LEDs in the DL-RS family are designed to meet or exceed a Rated Lumen Maintenance Life or L₇₀ of 50,000 hours (Meaning the LEDs will maintain at least 70% of their original light output after the fixture has been on for 50,000 hours).

That being said, exceeding the operating temperature values may damage the LEDs by reducing the lifespan, lumen output, and/or adversely impact color consistency. It is recommended that adequate airflow and heat sinking be taken into consideration in the installation and application of this product. Improper thermal management may lead to premature product failure and void the warranty. See the product specification sheets for more information.



Do the colors of your LEDs vary?

We offer LEDs in specific white color temperatures. All our LEDs are designed to maintain their color over time and across the maximum length of a run.

We exceed the market's highest standards by specifying the exact color bins when we select LEDs so that they do not fluctuate more than $\pm 200^\circ$ for warm color temperatures and $\pm 300^\circ$ for cool color temperatures. This meets or exceeds the recognized standards for color quality and guarantees uniformity and consistency of hue and color temperature across LEDs, fixtures, and manufacturing runs.

That being said, inherent to any commercial strip/tape product, individual LEDs within a strip may vary slightly but the overall color temperature of the strip/tape will fall within our tight specifications listed above.

Why choose LED over any other type of lighting?

LEDs have caused a revolution in lighting. JESCO has helped lead that revolution. We were one of the first manufacturers to make the shift to the LED light source many years ago. Our LEDs are of the highest quality and they are time-tested to be dependable.

There are many reasons to make the switch to LED products. Some of the reasons include:

Technological Impact

LEDs are solid state, light emitting chips that are not encased in fragile glass enclosures or use delicate and inefficient filaments. LEDs are vibration resistant. They also do not need to warm up as they are an instant-on light source. LEDs currently offer life expectancy of 50,000 hours, on average. LEDs offer much more control of correlated color temperatures and provide the option to add color(s) either monochromatically or through RGB technology. The chips are miniscule in size which allows manufacturers to design much smaller fixtures and allows designers and end users much greater flexibility incorporating and installing these fixtures on their projects.

Financial Impact

The long life expectancy means a higher rate of return on investment – installed fixtures can last, at least, 10 years (depending on the design, the lifespan of the power source and the duty cycle of the fixture) with no maintenance. No maintenance means no labor costs and no replacement lamp costs associated with installed fixtures and lamps over the life of the fixture. Fixtures mounted in high or hard-to-reach locations are the prime candidates for LED lighting. LEDs are very efficient light sources and are cool to the touch unlike incandescent light sources which release 90% of their energy generated as heat. Due to the inherent cooler running temperatures of LEDs, HVAC system design loads can be scaled down. LEDs use much less energy per fixture than standard light sources guaranteeing savings in electrical costs far into the future. Lastly, many local energy providers are currently offering rebates to customers making the switch to LED fixtures.

Environmental Impact

LEDs are easily recyclable. They contain no mercury or lead which require special handling and disposal. LEDs do not emit harmful UV/IR which discolors fabric, furniture and artwork. The U.S. Department of Energy [estimates](#) that rapid adoption of LED lighting in the U.S. by 2027 could deliver savings of about \$265 billion, avoid the building of 40 new power plants and reduce lighting electricity demand by 33% in 2027.

All or even one of the above stated reasons may be the right reason for you to choose a fixture with an LED light source.



The last important factor when choosing an LED fixture is scrutinizing the manufacturer of the LED chip and the incorporation of this chip into the design of the lighting fixture. As the United States EPA and DOE Energy Star program states on its website “Bad design can lead to a wide range of problems, some immediately observable and some not. Poorly designed products often come with exaggerated claims while failing to deliver on the quality specifications provided.” Our LED products are designed around the LED light source and not the other way around making for a well-designed, color consistent and extra long-life fixture with a proven track record. With all our LED products, JESCO offers layout assistance and technical support helping make specification, as well as installation, simple.

Therefore, always look for reputable and trusted sources of LEDs and LED fixtures - be it JESCO Lighting or anyone else.

