

The BIVAR logo is displayed in a bold, white, sans-serif font against a dark blue background. The letters are closely spaced, with the 'I' and 'V' being particularly prominent.

# BIVAR



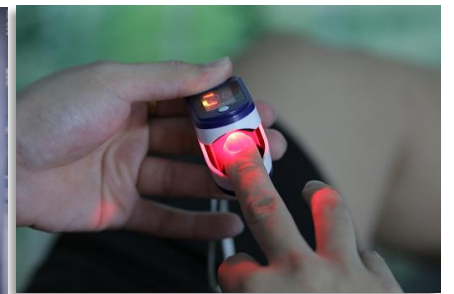
# Corporate Overview

**Your True Partner for LED Illumination**



User Interface requirements are increasing in complexity.

We build customer-driven solutions that add value by empowering designs that shape the world around us.



# Who we are

Essential Component Products.  
Innovative Advanced Solutions.  
Decades of Experience, since 1965

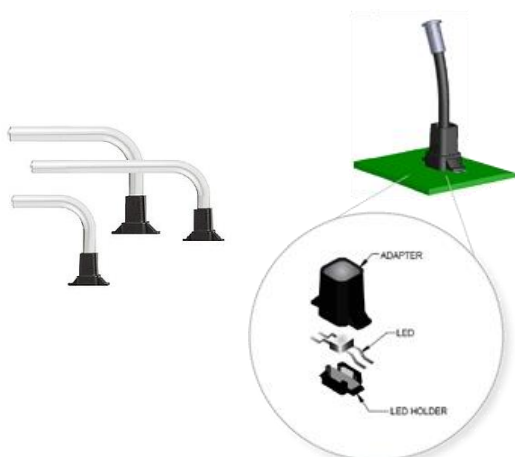
Bivar is an Electronics Manufacturer with a specialized engineering approach to better accelerate customer project development and meet the ever-present challenges of technology.

Our comprehensive selection of high-quality innovative essential component products includes LED Indication, Circuit Board Hardware, and Component Hardware. Bivar provides OEM customers an Advanced Solutions team built upon decades of design expertise and impactful problem-solving achievement.

# Many customers don't even know they have a need for LED Illumination

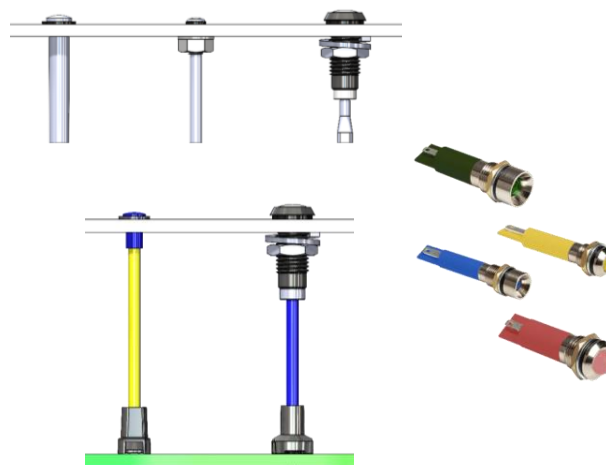
## ZeroLightBleed™

Adapter channels light directly to the lens for maximum light transmission. This eliminates disruptive light bleed known to cause false readings, muted and blended colors, and unwanted glow in the enclosure. Optional built-in SMD LED delivers convenience, resource savings for procurement/assembly, and enhanced durability for high vibration applications.



## Ingress Protection

Bivar IP Rated Light Pipe and Panel Mount Indicator products and systems solve problems and offer design options for strength and protection from the ingress of particulates, electrostatic discharge, vibration, and physical impact.



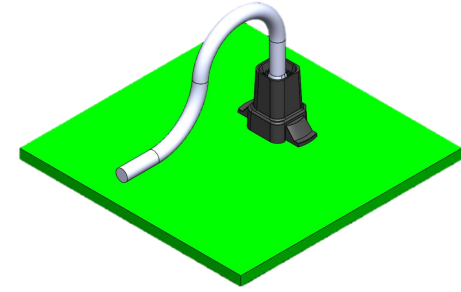
## Custom Designs

Bivar Products are designed with customer-specific applications in mind. They are easily customized to meet your requirements. Whether it's dimensional adjustments, integrated assemblies, or full customization, Bivar design experts are ready to assist you with your next design project.

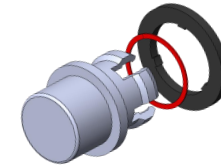


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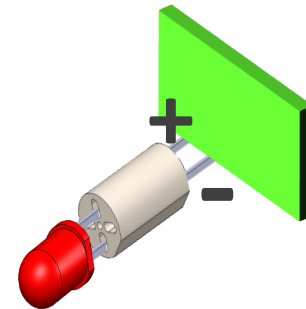
# New Products



SZR Series



SGLC Series



ELM-P Series

# SZR

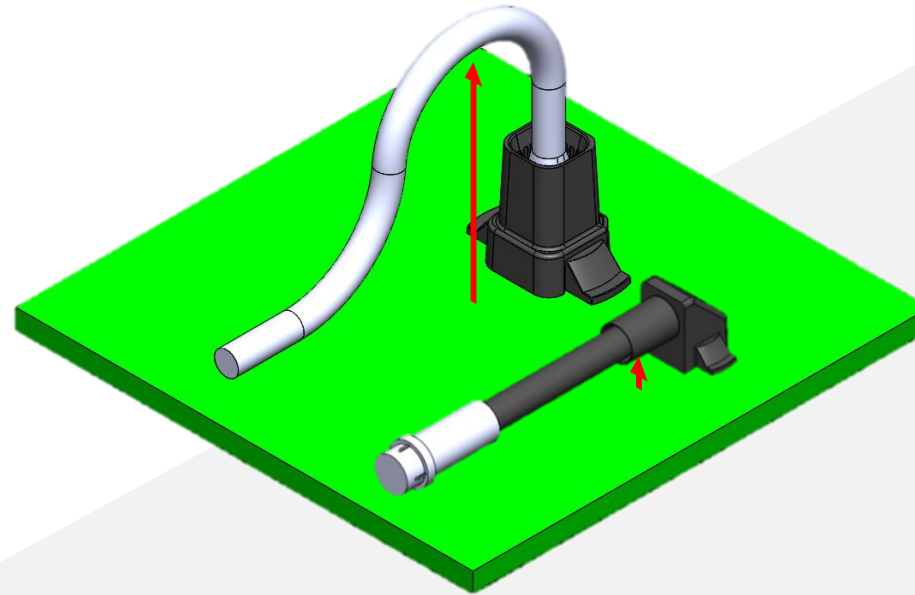
## Features and Benefits

### LOW PROFILE AND RIGHT ANGLE

Route light pipes in small and tight housing

### ZEROLIGHT BLEED TECHNOLOGY

Prevents from light bleed to the adjacent light pipes



### MECHANICAL ADVANTAGE

Gradual bend on light pipe allows a more natural light path and helps maintain efficiency

### MODULAR

Different lengths, lenses, LEDs etc. are available to be used with this system

# SGLC-LD LEAK DETECTOR

## Features and Benefits

### PLACEMENT

Inside portion of gasket will change color to red upon contact with moisture.

### RING-SHAPED

Ring shape to sit closely around the inside diameter of the sealing gasket.

### THIN DESIGN

Liquid indicator and sealing gasket will not impair maximum transmission of light.

### PRE-ASSEMBLED

Liquid indicator comes pre-installed for ease of use.



### MECHANICAL COMPONENT

Removes need for power at the panel, while protecting LED from electro-static discharge.

### RED COLOR

Liquid indicator turns from white to red making it visually easy to identify liquid intrusion.

### MATERIAL

Once turned red the liquid indicator remains red even if surface area becomes dry.

# ELM-P

## Features and Benefits

### **POLARITY IDENTIFIER**

Prevents accidental placement of component with wrong polarity as the spacers cover the polarity on PCB.

### **ROUND-SHAPED**

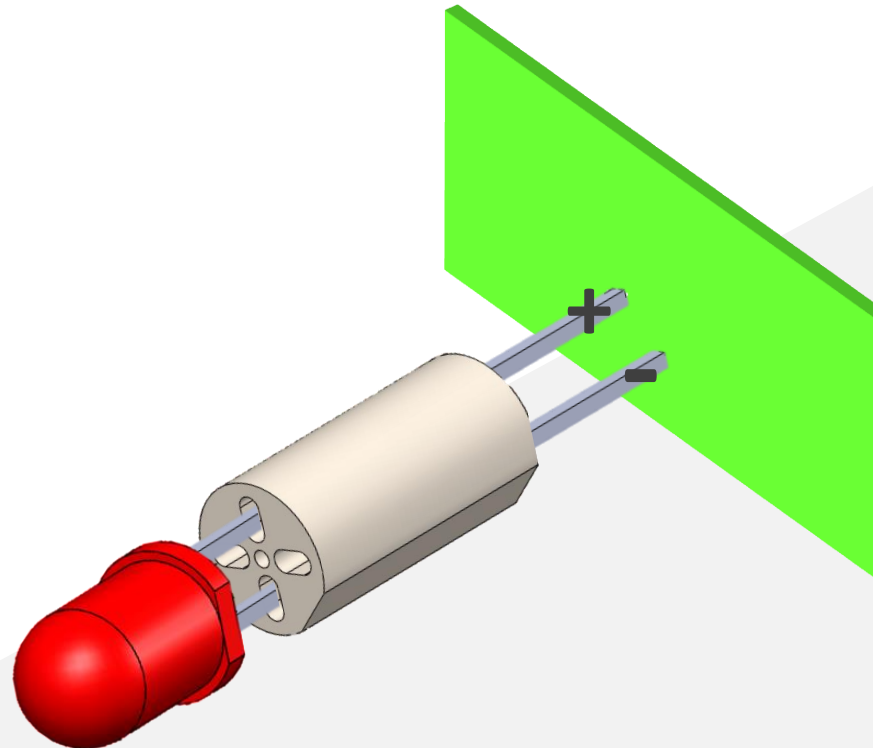
Provides more stability for the components like LEDs as their base is also round.

### **MULTIPLE PITCHES**

Allows different components to be used.

### **COMPONENT PROTECTION**

Protects components from damaging



### **SELF-RETAINING**

In shock or vibration environment this feature keeps components from damaging

### **INSULATOR**

Provides insulation to exposed conductors.

### **MULTIPLE SIZES**

Can be used with different LEDs or alternatives (ceramic caps or other electronic components).



# Application Success

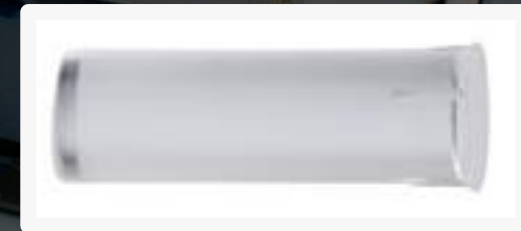


# Industrial Automation Success Story



IP67 sealed Rigid Light Pipe  
Part Number: PLTR5-250-PR2

**Electronic sensor light pipe in an industrial control environment with IP67 requirement for dust, dirt, hosing down of equipment and design constraints**



Flush Mounted Rigid Light Pipe  
Part Number: PLPC3-250

**Customer needed small, flush-mounted solution for membrane overlay without any bumps under their membrane.**

# Agriculture Success Story



LED Indication, Rigid Light Pipe  
Part Number: LPV4-0400FP

A Sprinkler control systems manufacturer required a light transmission system with zero light bleed and lowest profile light pipes.

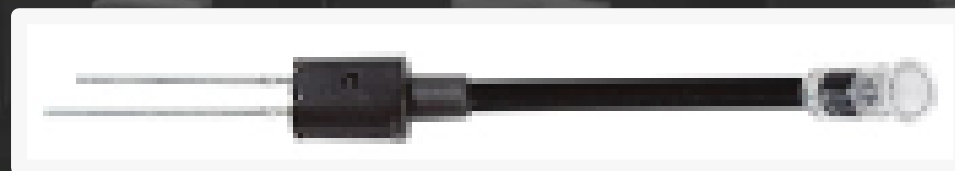


# Data Center Success Story



Board Mounted Rigid Light Pipe  
Part Number: LPV2-0600DP

Customer needed a power indicator on the front panel that could work with a surface mount LED with minimum light loss in the enclosure.



Flexible Light Pipe System  
Part Number: FLPV3.0-SG

UPS and Surge Protection equipment doesn't allow for a PCB near rear panel. Solution was 3" flexible light pipe to place the LED back from the panel and provide indicator impervious to ESD and EMI without fitting a nut on the already crowded panel.

# Healthcare Success Story

**BIVAR**



LED Indication

Part Number: PLPC1-100

**A medical device manufacturer was looking for a way to transmit light using the smallest possible rigid light pipe to show indication on the face of the panel. (0.9mm diameter and 0.1" length)**



# Entertainment Success Story

**BIVAR**

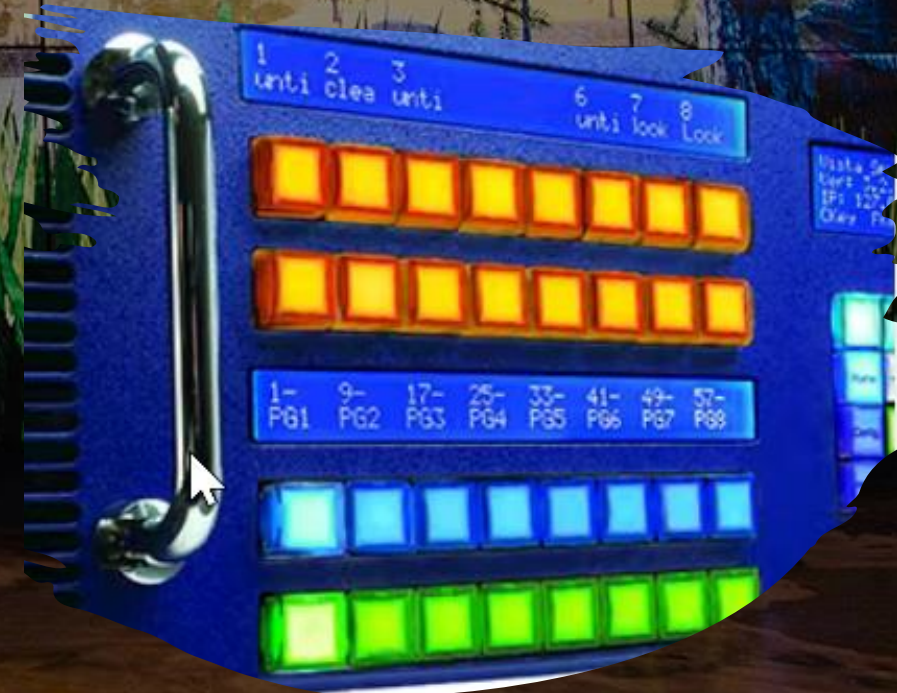


LED Indication

Part Number: LPV2-0550FP

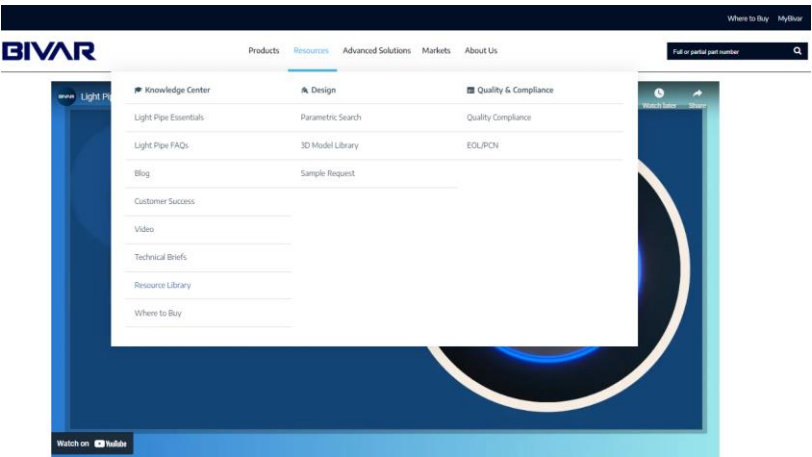
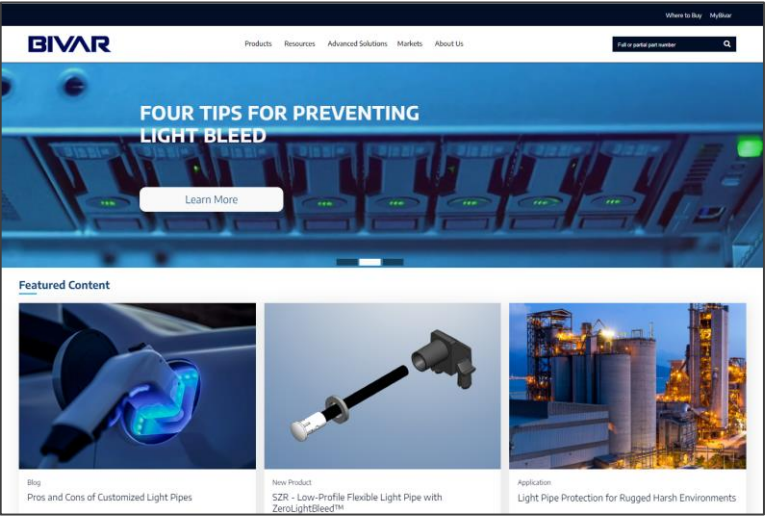
LED Indication, Rigid Light Pipes

**An Image Processor and Projector manufacturer was looking for a way to transmit light with zero crosstalk.**

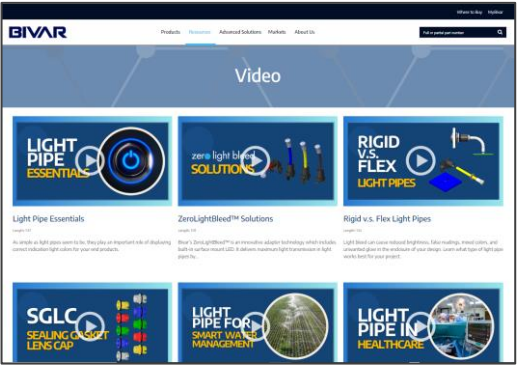


# New Website

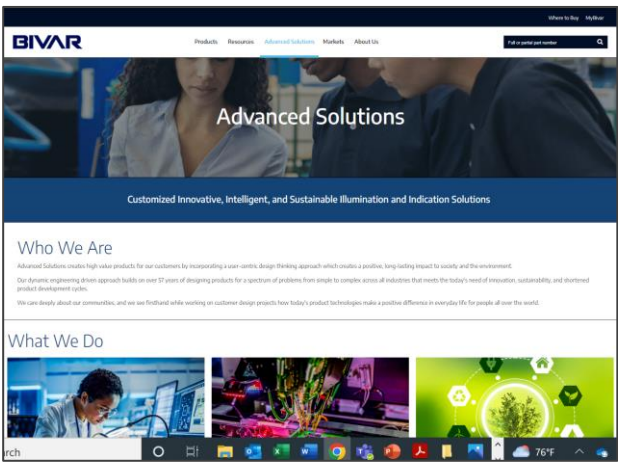
## Redesigned Homepage



## Resources Expansion



## Advanced Solutions

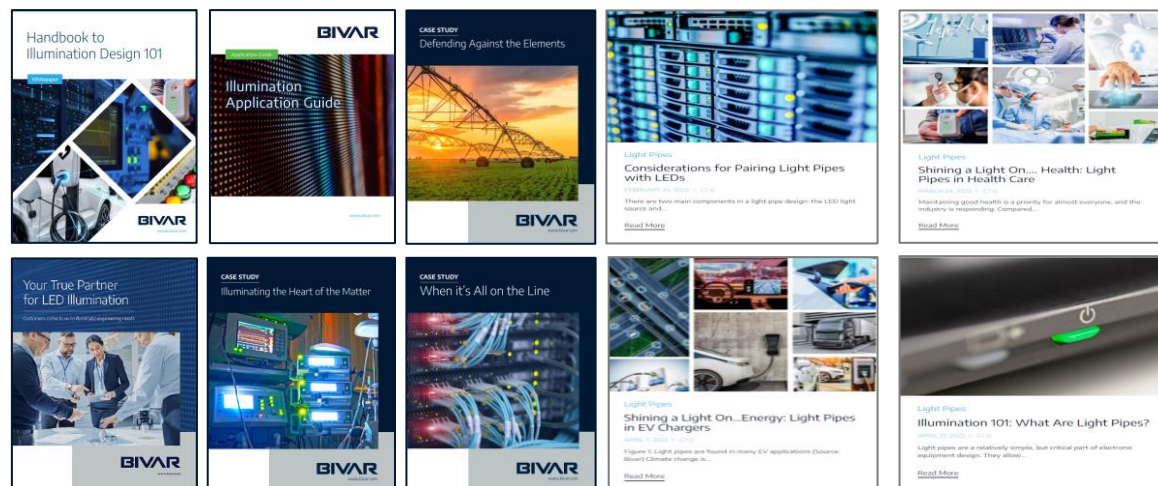


## QA Compliance Forms



## Educational Resources

**Bivar is the place customers come to learn, source, and connect with LED Illumination design experts.**



**Monthly Newsletter** – Content, Product Highlights



**Website Revision**– Resources



**Blog Posts** – 2X Per Month



**Videos** – Illumination Fundamentals



**Case Study** – Webpage, Links, Video Adaptation