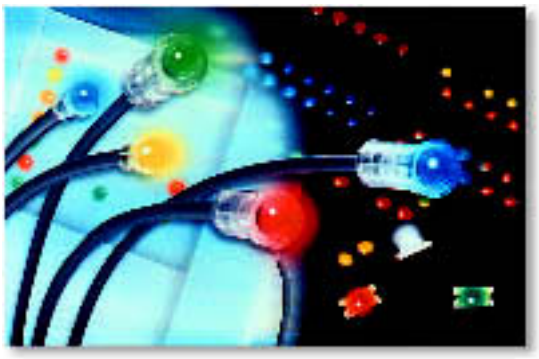
FLP Series



Flexible Light Pipes for Through-Hole and Surface Mount

- *Highly Transmissive Optical Grade Materials*
- *Secure Press-Fit Panel Mounting*
- *Wide, Ultra-Bright Color Selections*
- *Through-Hole And Surface Mount Versions*
- *Wide Selection Of Lens Shapes And Sizes*
- *Custom Lenses Available (Subject To Quotation And Minimum Orders)*

Award winning Flexible Light Pipes were introduced in 1999 to eliminate daughter cards and hard-wired front panel LEDs and to provide designers unmatched flexibility in indicator placement and design. BivarOpto's patented flexible light pipe technology allows for LEDs to be placed anywhere on a PCB or within an enclosure. Installation is by means of a simple press-fit application. Retention is vibration and shock resistant. Non-conducting 94V-0 Polycarbonate lenses protect static sensitive components from accidental ESD damage by eliminating potential contact with circuitry. For more information on Bivar's Flexible Light Pipe technology visit us on line at www.bivar.com.

Mounting Information:
Front Panel: 0.040 [1mm] - 0.125 [3.2mm]
SMD Adapter Hole Size: 0.094" (2.4mm) diameter + 0.002 (0.05mm), - 0.000 (0.0mm) on 0.296" (7.5mm) centers ±0.002

Material Specifications Plastic Optical Fiber:
Fiber Core: PMMA 94-HB
Fiber Cladding: Fluorinated Polymer TFE
Fiber Jacket: 94V-0 PVC Alloy

Material Specifications Housings & Adapters:
SMFLP: UL 94V-0 rated, Black 6 Nylon
Oxygen Index: +28%
FLP: UL 94V-0 rated, Black 6 Nylon
Oxygen Index: +28%

Application Notes:
Available in lengths from 2.5" [63.5mm] to 328.0' [100m]

After initial captured light loss of approximately 4% for the fiber and 4% for the Fresnel detail there is no significant degradation over practical lengths.

Minimum bend radius of fiber is 10x the diameter or 0.800 [20.3mm]

0603, 0805 and 1206 size SMD LEDs are recommended for use with the SMD adapter with minimum brightness levels of 20 mcd.

Ordering Information:

FLP	5	R	6.0	-	SR
Series	Lens	Orientation	Length		Color

Series Choices:
FLP (Through-hole)
SMFLP (Surface Mount Adapter)

Lens Choices:

"Blank"	3mm clear lens
5	7mm clear lens
O	oval clear lens
R1	rectangular 2x7 clear lens

Orientation: (Through-hole only)

R	Right Angle
V	Vertical

Length:
Expressed in inches from 2.5" to 3940.0" ±0.250 [6.35mm] per 1.0' [304.8mm]

Color Options and Suffixes:

Suffix	Color	Peak (nm)	Typ. Vf
SR	Super Red	660nm	1.7
SG	Super Green	568nm	2.2
SY	Super Yellow	585nm	2.1
H	High Efficiency Red	635nm	2.0
SA	Super Amber	610nm	2.2
UBW.6K	Ultra Blue	470nm	3.5
UT	Ultra Turquoise	505nm	3.5
UG	Ultra Green	563nm	2.2

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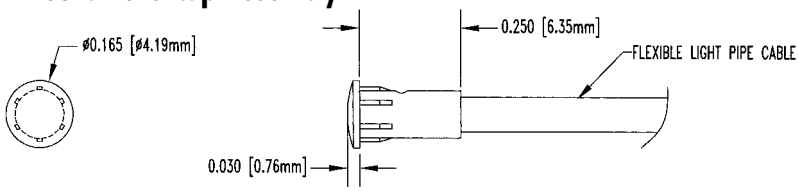
FLP Series

Press-Fit Panel Mount Light Pipes For Through-Hole And SMD LEDs

- *Oval, Square And Round Lens Choices*

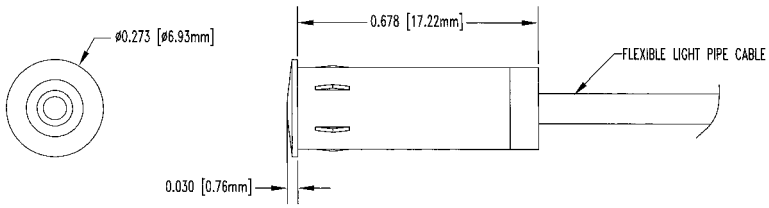
FLP Series

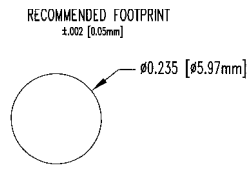
3mm Round Lens Cap Assembly



FLP-5 Series

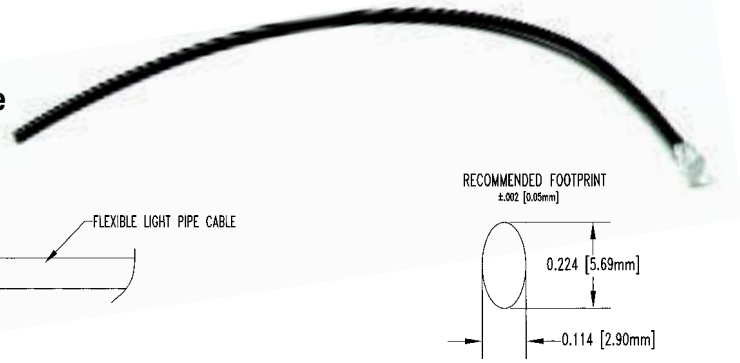
7mm Round Lens Cap Assembly

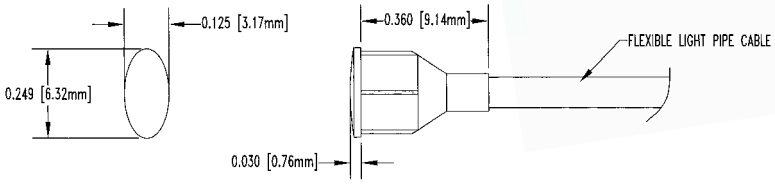




FLP-0 Series

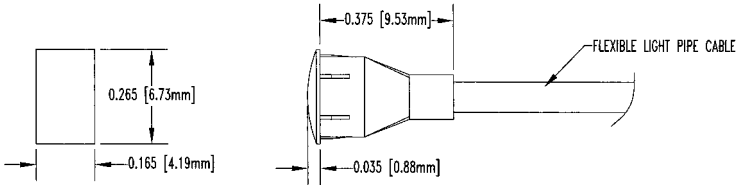
Oval Lens Cap Assembly For Flexible Light Pipe

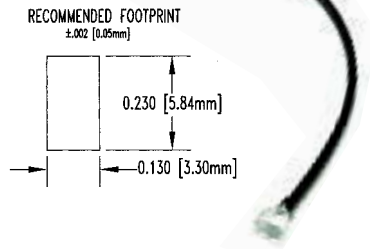




FLP-R1 Series

Rectangular Lens Cap Assembly For Flexible Light Pipe





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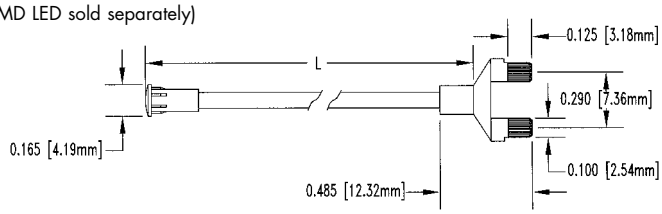
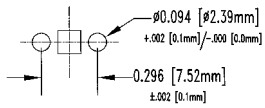
SMFLP Series
Flexible Light Pipe SMD LED Adapter

*3mm version shown
(SMD LED sold separately)

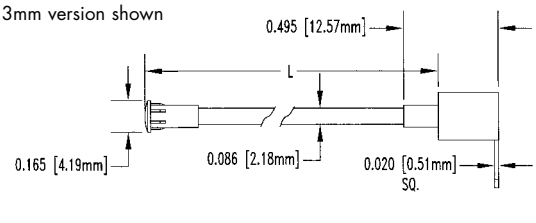


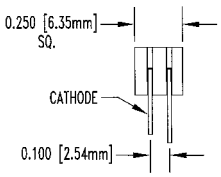
RECOMMENDED FOOTPRINT FOR SMFLP SERIES



FLPR-XXX Series
Right Angle Flexible Light Pipe Assembly

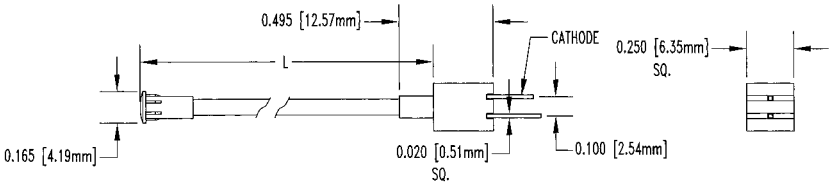
*3mm version shown



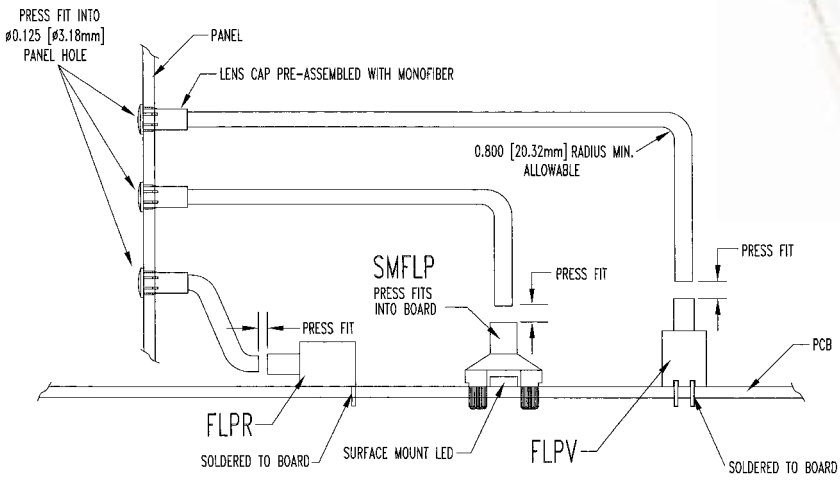


FLPV-XXX Series
Vertical Flexible Light Pipe Assembly

*3mm version shown



FLP Series
Functional Diagram



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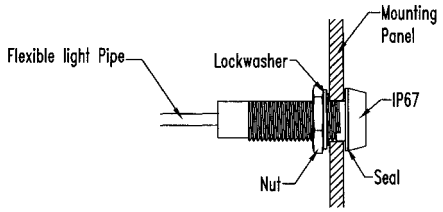
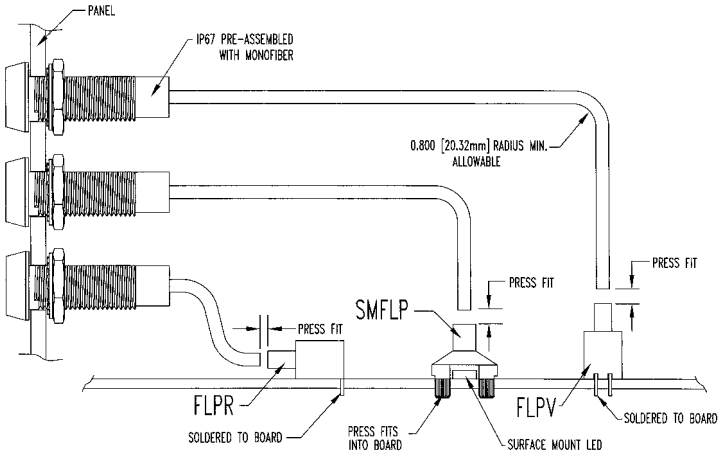
IP67 Series
Watertight Panel Mount Assembly

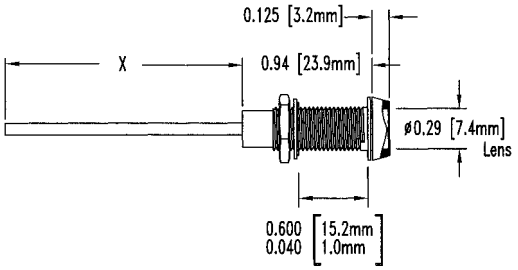
- *Certified IP67 Watertight And Splash Proof Design*
- *Micro-Frensel Lens Focusing And Near 160° Viewing Angle Patented Technology*
- *Transports Original LED Intensity Up To 328 Feet (100m)*
- *Black Anodized Or Nickel Plated Brass Finish*

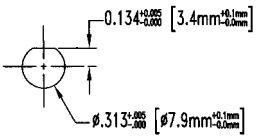


Panel Mount Detail

IP67 Series
Functional Diagram



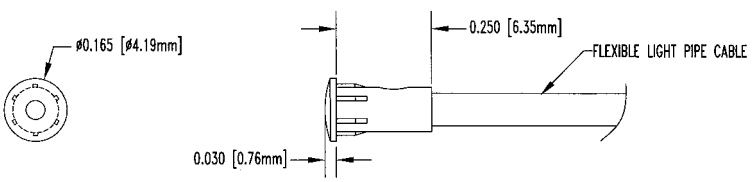


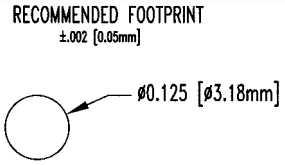


Recommended Panel Cut-Out

FLP-IR Series
Infrared Round Lens Cap Assembly

- *Micro-Frensel Lens Design Allows Uninterrupted IR Beam Transmission*





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