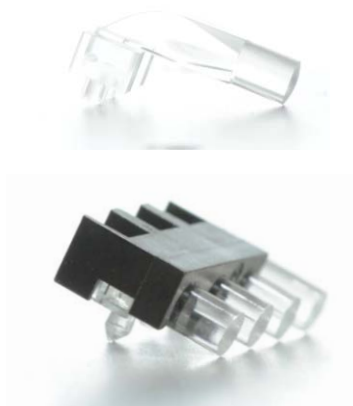




## Light Pipe Selector Guide

Optopipe® Lightpipes





## Why Light Pipes?

Visual status indication provides for safe and reliable operation of electrical equipment, instruments, and electronic devices and also serves diagnostic purposes as well. While lamp holders, which utilize separate incandescent or neon bulbs and lens caps, dominated the market in the majority of the 20th century, LED-based light sources are predominantly used today to provide visual indication.

## Technical Solutions

Light-pipes provide front-panel indication where:

- Traditional indicators are too large or other space constraints exist
- Indication is required over, around, or beneath front-panel components
- EMI/RFI concerns require location of the light source away from the front-panel
- Indication is desired after all mechanical design considerations were made

We also design light-pipes for non-diagnostic applications, including lighted company logos. Light loss between the LED and light-pipe interface must be considered and there is also additional transmission loss through the pipe or wherever there is a bend. The shape of the light-pipe also influences the output. Dialight's design engineers will recommend the best LED for use with each light-pipe.

## Configuration and features

Almost any configuration or size can be accommodated and we currently offer standard solutions in:

|                  |                    |                        |               |                 |
|------------------|--------------------|------------------------|---------------|-----------------|
| Single Element   | Round Lens         | Vertical               | Shielded      | Over RS-232     |
| Multiple Element | Square Lens        | Horizontal             | Textured Lens | Over SFP Cage   |
| Single Row       | Rectangular Lens   | Vertical Right Angle   | Polished Lens | Under PCB Mount |
| Multiple Row     | Illuminated Corner | Horizontal Right Angle |               |                 |

## Mounting Consideration

Most light-pipes are mounted to a PCB by pressing into holes drilled into the PCB. Depending on the application, epoxy is also indicated for additional support. Some light-pipes are designed to press into the front-panel and rest on the PCB, just above the LED(s). Heat-staking is another process that is used to mount light-pipes in specific applications.

## Index

### 02 Product Overview

#### Optopipe® Lightpipes

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### 06 PCB Mount Multiple Position Vertical

### 08 PCB Mount Multiple Position Horizontal

### 14 Panel Mount Single Position

### 15 Panel Mount Multiple position

#### Micro LED® LEDs

### 16 Recommended Micro LED® Surface Mount LEDs

#### New Products

### 18 Optopipe® Light pipe Actuator Extensions

The following pages are organized as a product overview. Additional information including detailed specs, are available at: [www.dialight.com](http://www.dialight.com).

The most recent version of this selector guide can be found at:

[www.dialight.com/assets/brochures\\_and\\_catalogs/indication/lightpipe\\_selector\\_guide.pdf](http://www.dialight.com/assets/brochures_and_catalogs/indication/lightpipe_selector_guide.pdf)

## Dialight Optopipes®

Dialight's expertise in LED indication and lighting is apparent in our line of engineered light-pipes. Dialight has been a leading manufacturer of lightpipes for network communication and electronic equipment for more than 10 years. Our 200 standard and custom solutions are complemented by new designs resulting from customer requirements or market developments. Dialight's optical and mechanical engineers use the latest modeling tools to develop mechanical and optical simulations that ensure expected performance of the design. SLAs are available to represent the physical and optical characteristics of the design. Dialight also has an extensive optics lab for post-design measurement and analysis. With various single and multiple position products for either Panel Mount or PCB Mount oriented lightpipes already in production, we also have the added capability to manufacture custom solutions to meet your specific requirements.

### Features and Benefits

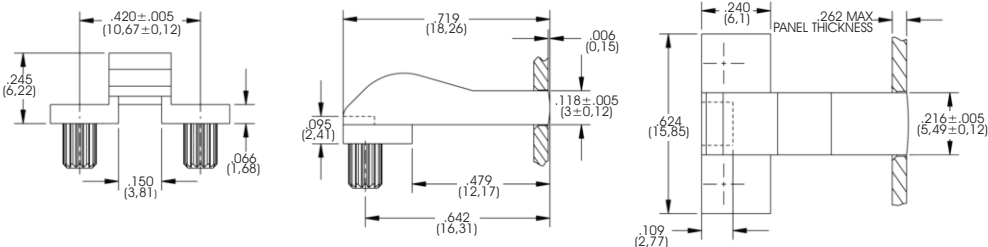
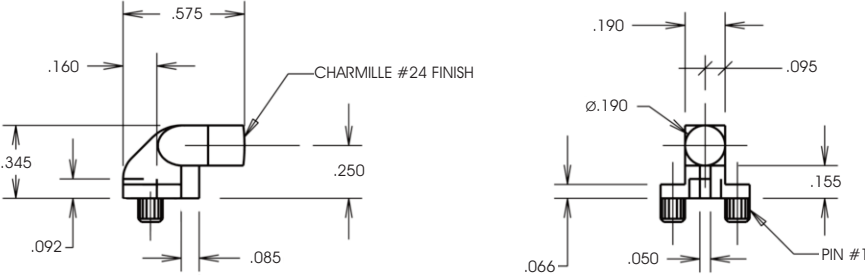
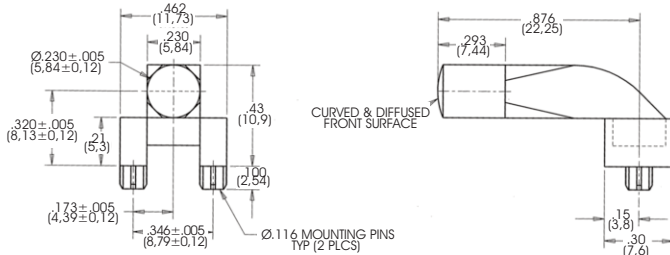
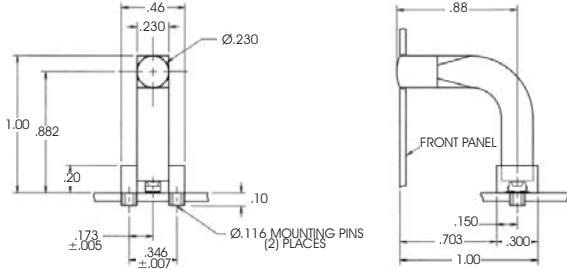
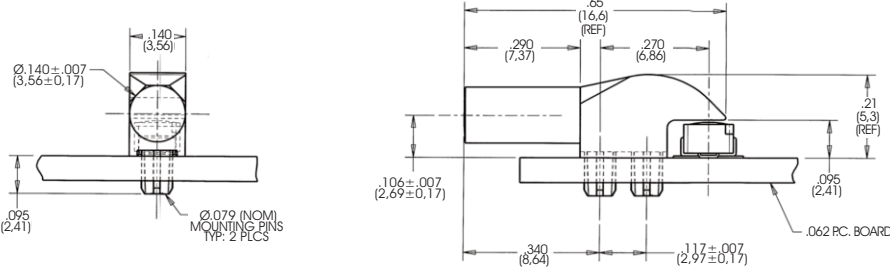
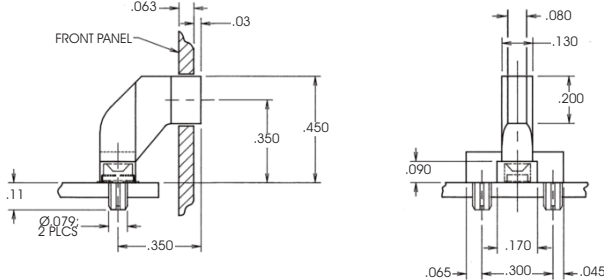
- Impervious to failure due to shock and vibration
- Up to 90% more efficient than traditional light sources when delivering monochromatic light
- Low-voltage and minimal power consumption
- Light is produced through photonic emission, not as a by-product of a radiating heat source
- Molded from RoHS compliant UL94-V0 Water Clear Polycarbonate with an oxygen index of 35%.

### Typical Applications

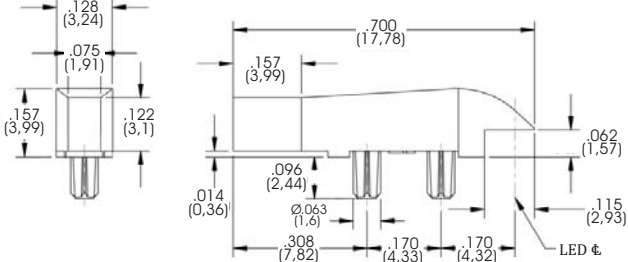
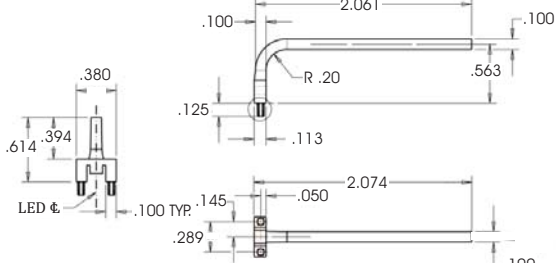
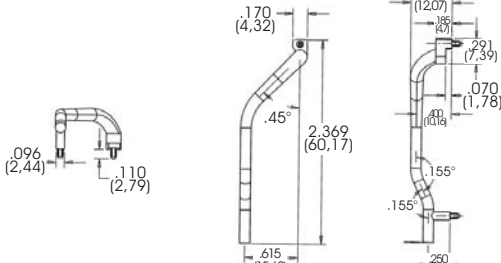
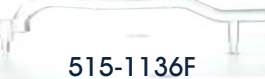
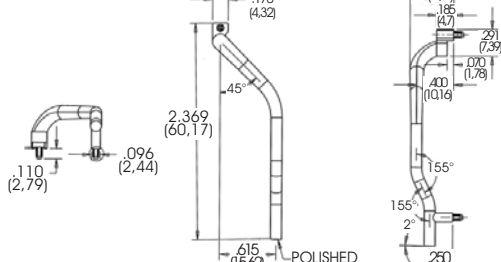
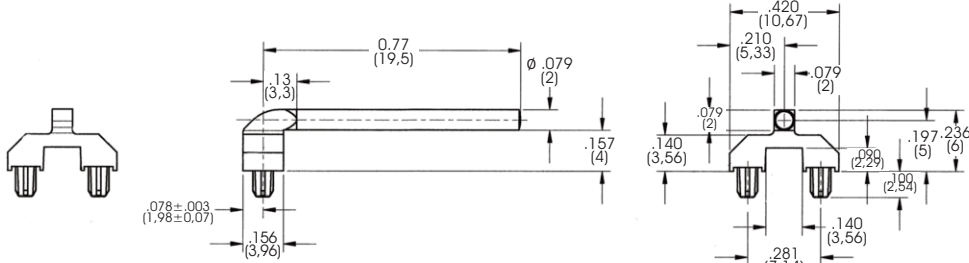
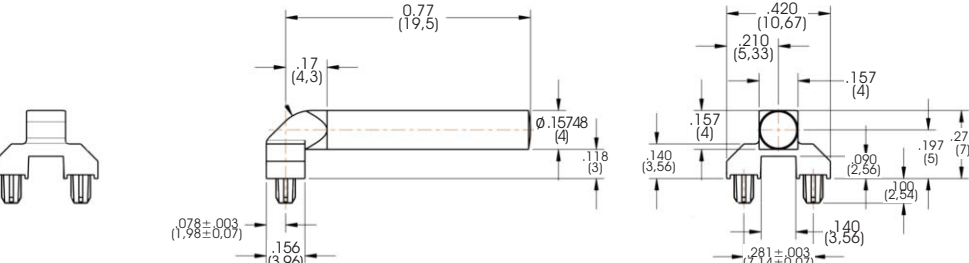
- Data center Infrastructure
  - Servers - Rack mount; blade; tower
  - Storage – High-performance storage subsystems for high- end enterprise
- Networking Equipment for enterprise data centers and telecom communication centers
  - Switches, routers, and network control equipment interconnected using fiber optic and high speed wiring
- Storage Networking Hardware
  - Fiber channel host bus adapter cards (HBAs); converged network adapter cards (CNAs); iSCSI adapter cards; InfiniBand adapter cards
- Next-Gen Wireless
  - Wireless Infrastructure
- Electronic Test & Measurement Instruments
- Communications Testing Equipment
- Process controls
- Automation
- Medical
- Handheld devices

To compliment our wide range of Lightpipes, Dialight is also the worldwide leader in applied LED technology including Circuit Board and Panel Mount Indicators, Surface Mount LEDs, LED signaling products for the transportation industry and LED lighting fixtures for industrial users. Dialight's Lightpipes are available through our extensive line of Sales Representatives and Distributors world-wide. For a complete listing that includes the ability to check stock status at our Distribution partners, please visit our website at [www.dialight.com](http://www.dialight.com). The most current version of this catalog will always be available at: [www.dialight.com/assets/brochures\\_and\\_catalogs/indication/lightpipe\\_selector\\_guide.pdf](http://www.dialight.com/assets/brochures_and_catalogs/indication/lightpipe_selector_guide.pdf)

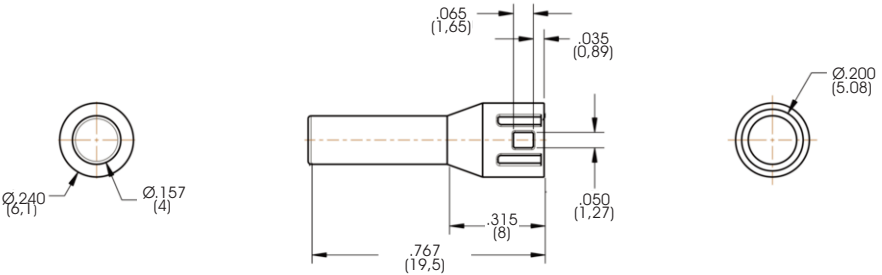
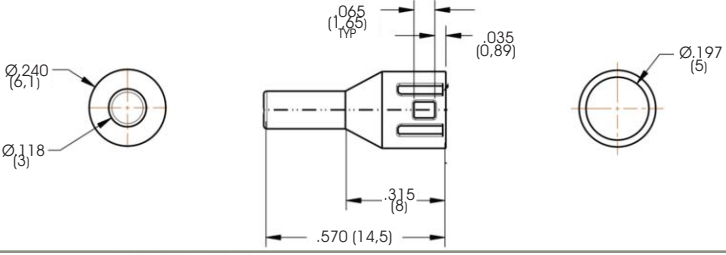
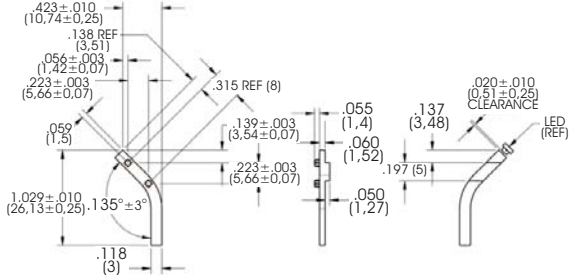
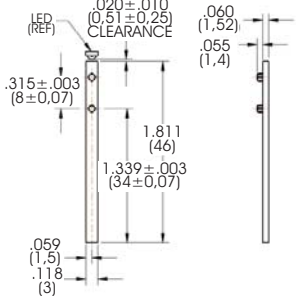
PCB Mount Single Position Horizontal

| Part Number                                                                                      | Drawing                                                                              | Suggested LED                  |
|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------|
| <br>515-1001F   |    | 597-3XX1-207F<br>597-77X1-207F |
| <br>515-1011F   |    | 597-3XX1-207F<br>597-77X1-207F |
| <br>515-1038F   |   | 597-3XX1-207F<br>597-77X1-207F |
| <br>515-1039F  |  | 597-3XX1-207F<br>597-77X1-207F |
| <br>515-1049F |  | 597-3XX1-207F<br>597-77X1-207F |
| <br>515-1054F |  | 597-3XX1-207F<br>597-77X1-207F |

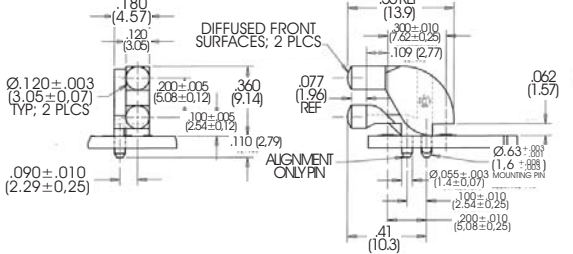
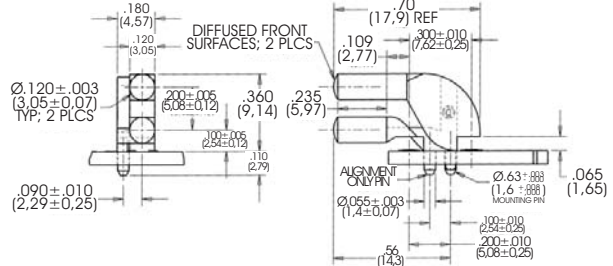
\* 'X' represents a variable part number. See page 17 for LED details.

| Part Number                                                                                                    | Drawing                                                                              | Suggested LED*                         |
|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------|
|  <p><b>515-1105F</b></p>       |    | <p>597-3XX1-507F<br/>597-77X1-507F</p> |
|  <p><b>515-1111F</b></p>       |    | <p>597-3XX1-207F<br/>597-77X1-207F</p> |
|  <p><b>515-1135F</b></p>      |   | <p>597-3XX1-507F<br/>597-77X1-507F</p> |
|  <p><b>515-1136F</b></p>     |  | <p>597-3XX1-507F<br/>597-77X1-507F</p> |
|  <p><b>515-1141-195F</b></p> |  | <p>597-3XX1-207F<br/>597-77X1-207F</p> |
|  <p><b>515-1142-195F</b></p> |  | <p>597-3XX1-207F<br/>597-77X1-207F</p> |

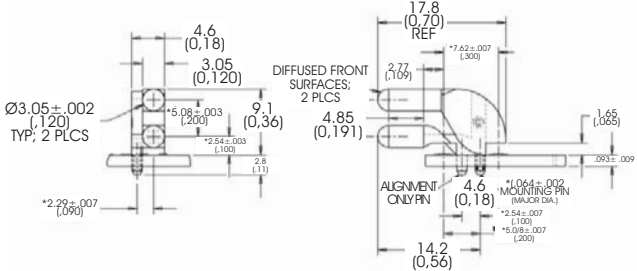
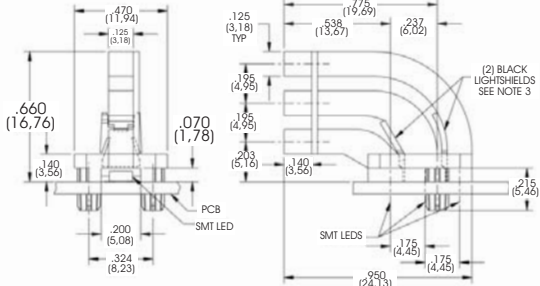
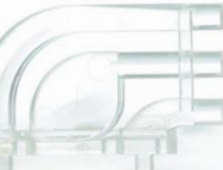
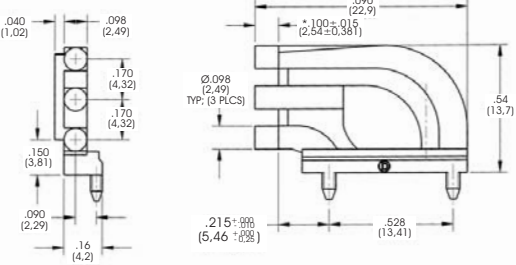
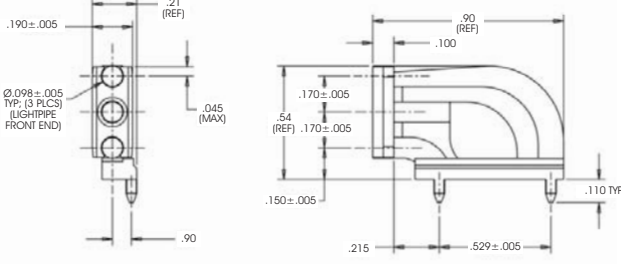
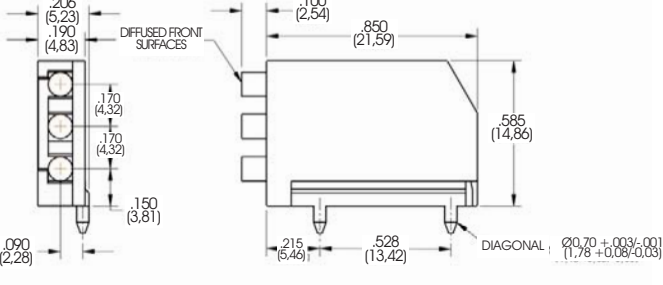
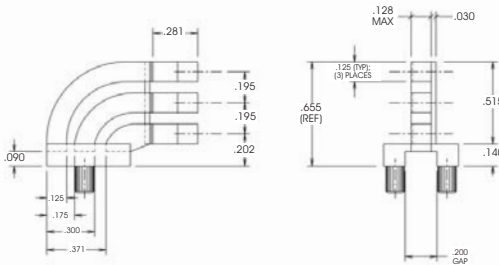
\* 'X' represents a variable part number. See page 17 for LED details.

| Part Number                                                                                               | Drawing                                                                              | Suggested LED*                                  |
|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------------------------------------------------|
| <br><b>515-1140-195F</b> |    | ITT K5V2<br>Lighted Tactile Switch              |
| <br><b>515-1149-145F</b> |    | ITT K5V2<br>Lighted Tactile Switch              |
| <br><b>515-1151F</b>      |   | 597-2751-607F<br>597-2712-607F<br>597-2723-607F |
| <br><b>515-1154F</b>   |  | 597-2751-607F<br>597-2712-607F<br>597-2723-607F |

## PCB Mount Multiple Position Vertical

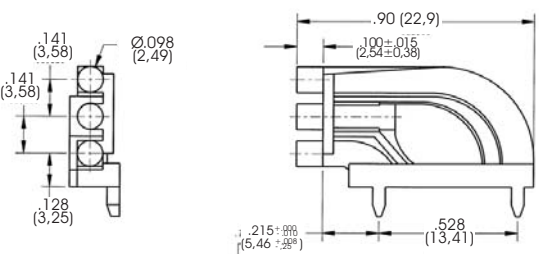
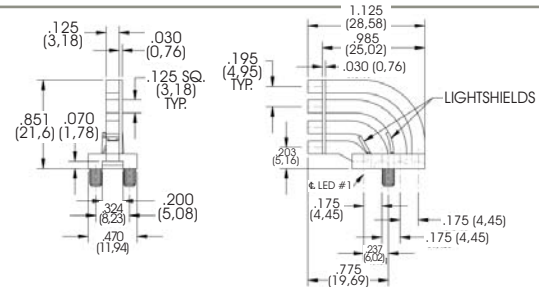
|                                                                                                         |                                                                                      |                                |
|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------|
| <br><b>515-1061F</b> |  | 597-3XX1-507F<br>597-77X1-507F |
| <br><b>515-1094F</b> |  | 597-3XX1-207F<br>597-77X1-207F |

\* 'X' represents a variable part number. See page 17 for LED details.

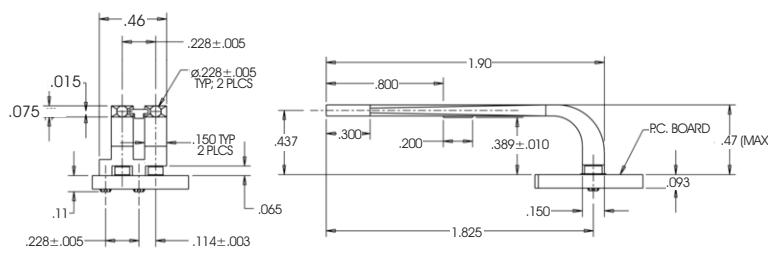
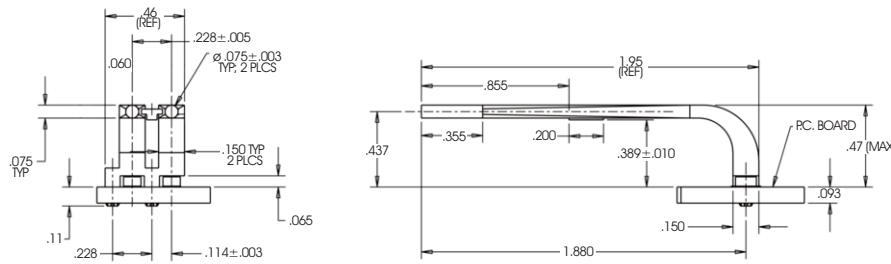
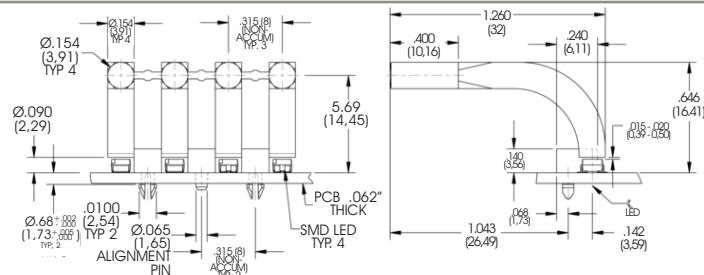
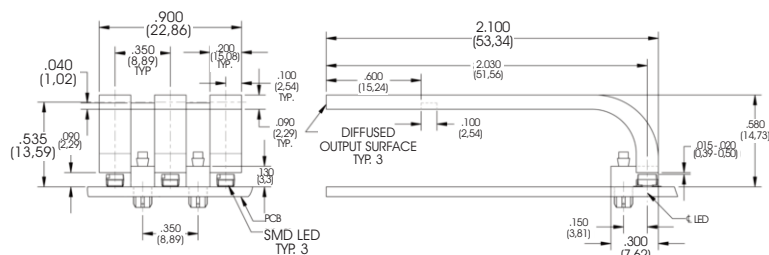
| Part Number                                                                                                     | Drawing                                                                              | Suggested LED*                         |
|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------|
|  <p><b>515-1114F</b></p>       |    | <p>597-3XX1-507F<br/>597-77X1-507F</p> |
|  <p><b>515-1108F</b></p>       |    | <p>597-3XX1-507F<br/>597-77X1-507F</p> |
|  <p><b>515-1064F</b></p>      |   | <p>597-3XX1-507F<br/>597-77X1-507F</p> |
|  <p><b>515-1064-801F</b></p> |  | <p>597-3XX1-507F<br/>597-77X1-507F</p> |
|  <p><b>515-1064-804F</b></p> |  | <p>597-3XX1-507F<br/>597-77X1-507F</p> |
|  <p><b>515-1009F</b></p>     |   | <p>597-3XX1-207F<br/>597-77X1-207F</p> |

\* 'X' represents a variable part number. See page 17 for LED details.



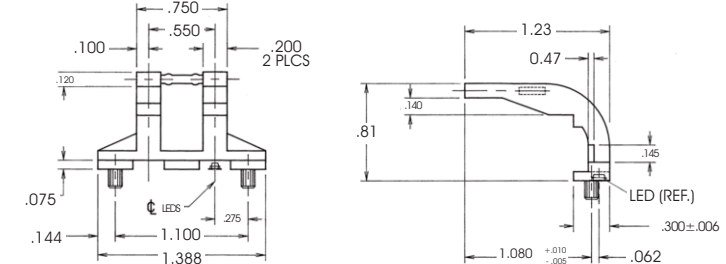
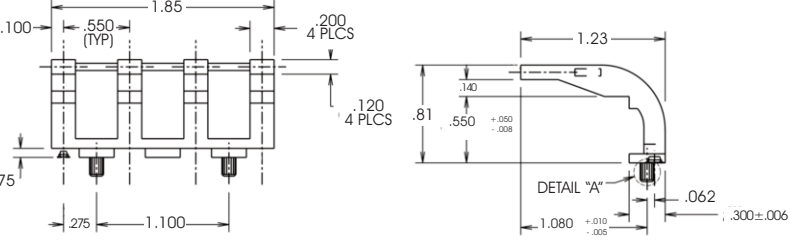
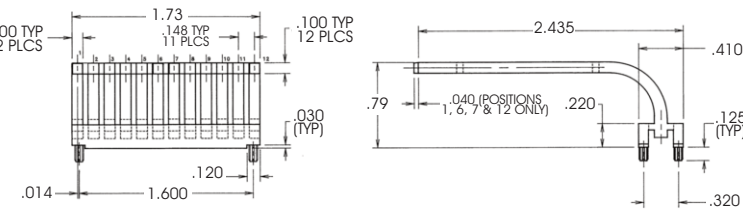
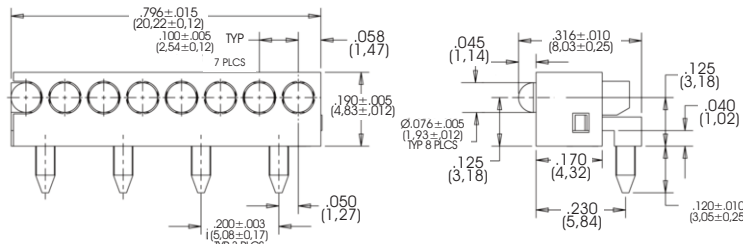
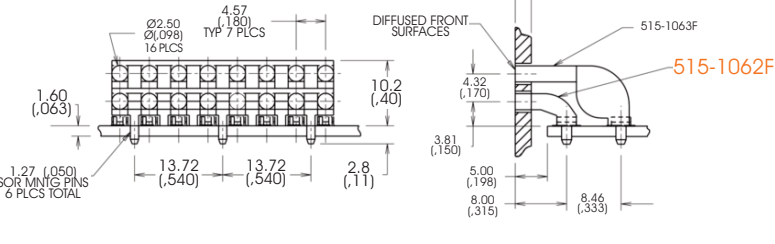
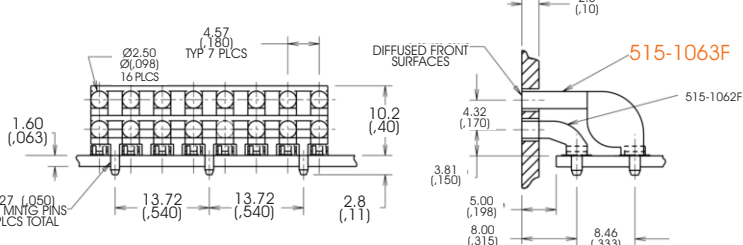
| Part Number                                                                                        | Drawing                                                                            | Suggested LED                  |
|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------|
| <br>515-1064-807F |  | 597-3XX1-507F<br>597-77X1-507F |
| <br>515-1023-803F |  | 597-3XX1-107F<br>597-77X1-107F |

## PCB Mount Multiple Position Horizontal

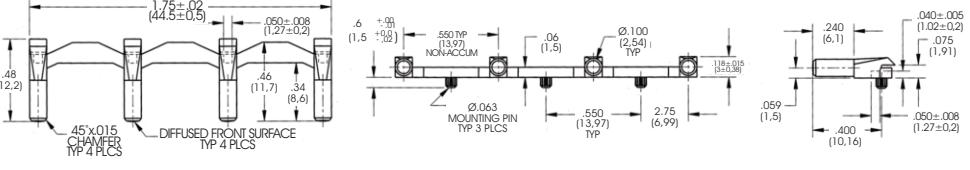
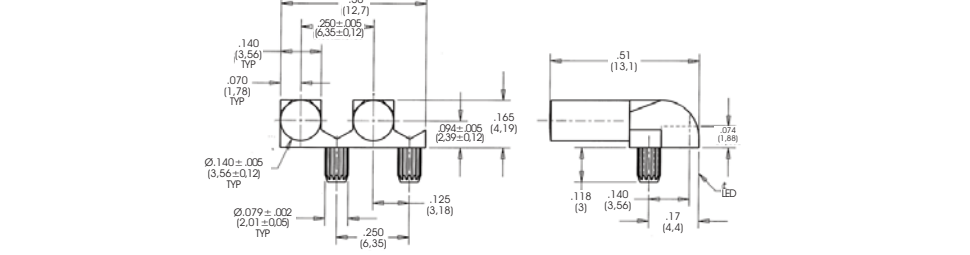
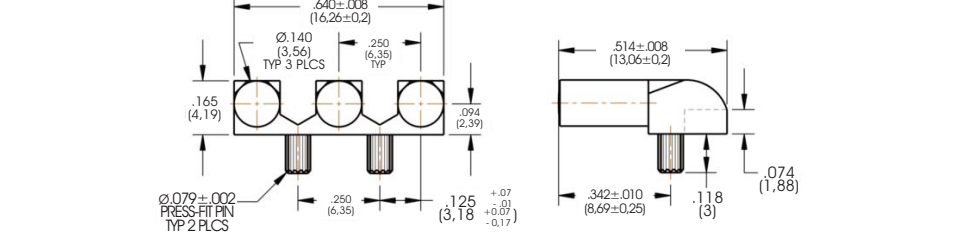
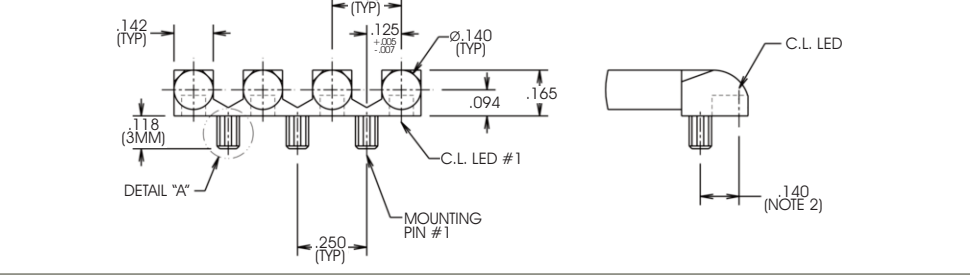
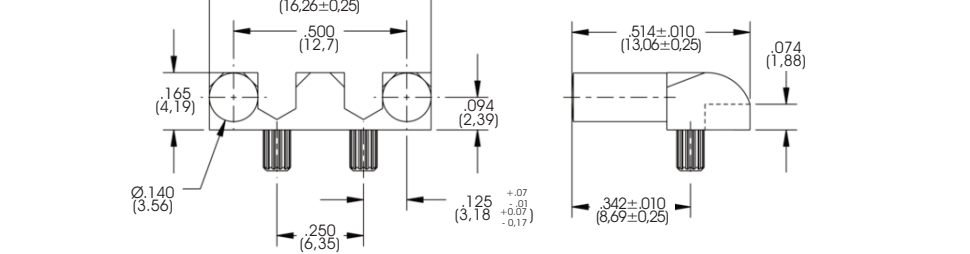
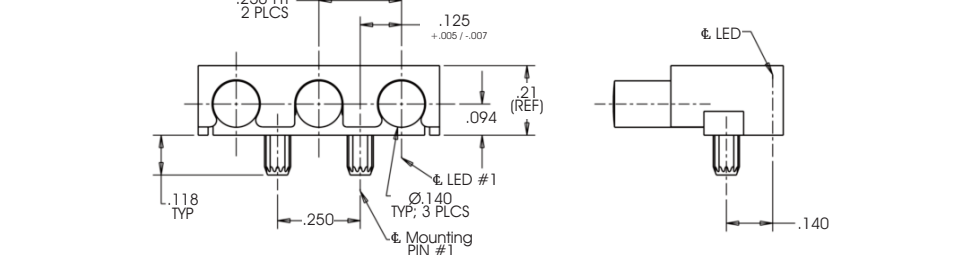
|                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                         |                                                                  |
|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| <br>515-1090F     |                                                                                                                                                                                                                                                                                      | 597-3XX1-507F<br>597-77X1-507F                                   |
| <br>515-1090-801F |                                                                                                                                                                                                                                                                                     | 597-3XX1-507F<br>597-77X1-507F                                   |
| <br>515-1052F     |  | 597-3XX1-207F<br>597-77X1-207F<br>597-3XX1-507F<br>597-77X1-507F |
| <br>515-1078F     |                                                                                                                                                                                                                                                                                     | 597-3XX1-207F<br>597-77X1-207F                                   |

\* 'X' represents a variable part number. See page 17 for LED details.

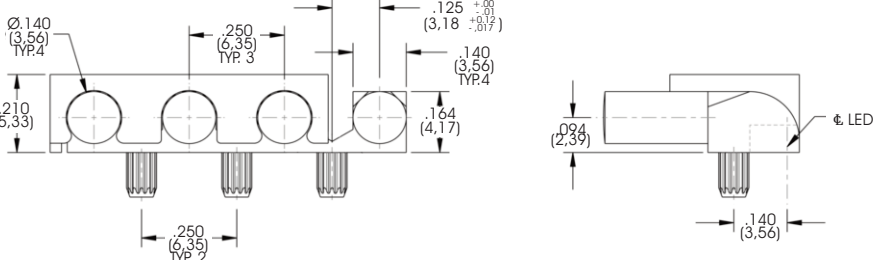
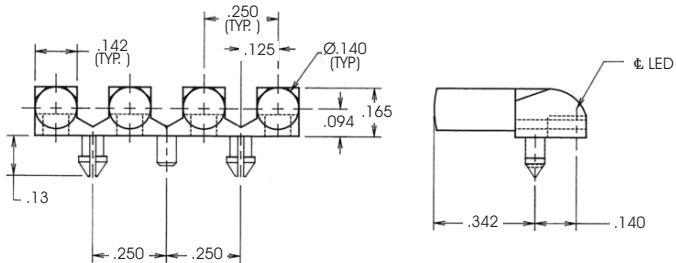
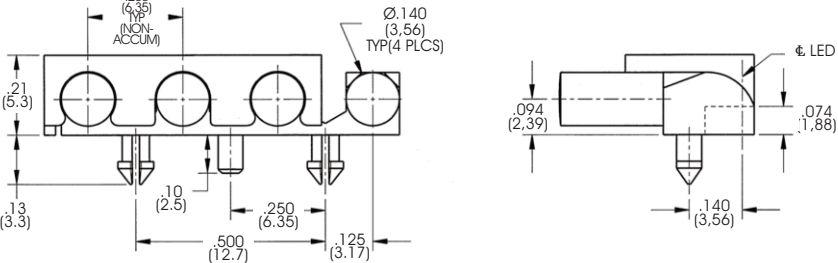
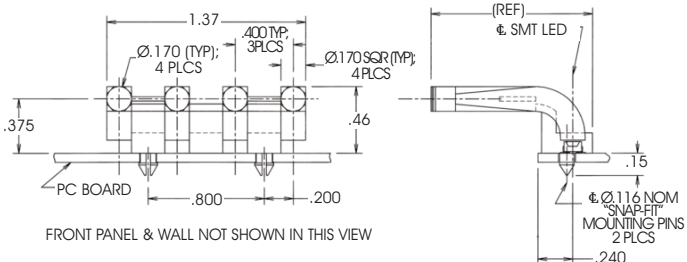
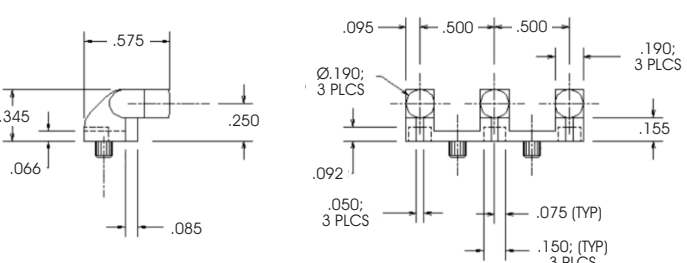
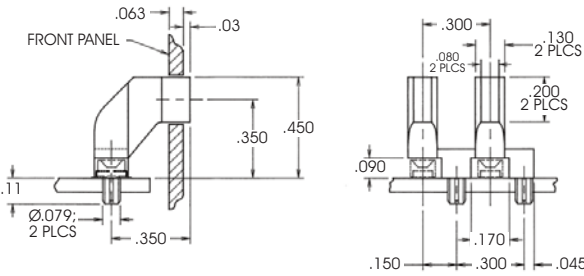


| Part Number                                                                                                 | Drawing                                                                              | Suggested LED                                                              |
|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
|  <p><b>515-1070F</b></p>   |    | <p>597-3XX1-507F<br/>597-77X1-507F</p>                                     |
|  <p><b>515-1022F</b></p>    |    | <p>597-3XX1-507F<br/>597-77X1-507F</p>                                     |
|  <p><b>515-1045F</b></p>   |   | <p>597-3XX1-207F<br/>597-77X1-207F</p>                                     |
|  <p><b>515-1086F</b></p> |  | <p>597-5111-407F<br/>597-5202-407F<br/>597-5311-407F<br/>597-5411-407F</p> |
|  <p><b>515-1062F</b></p> |  | <p>597-3XX1-507F<br/>597-77X1-507F</p>                                     |
|  <p><b>515-1063F</b></p> |  | <p>597-3XX1-507F<br/>597-77X1-507F</p>                                     |

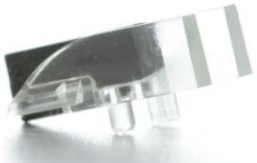
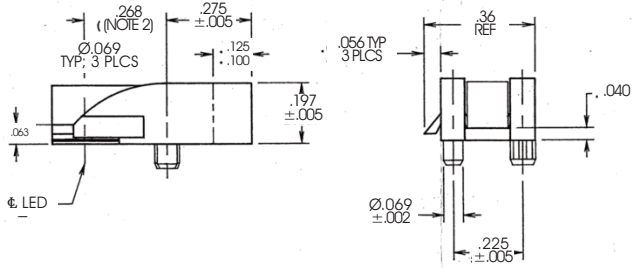
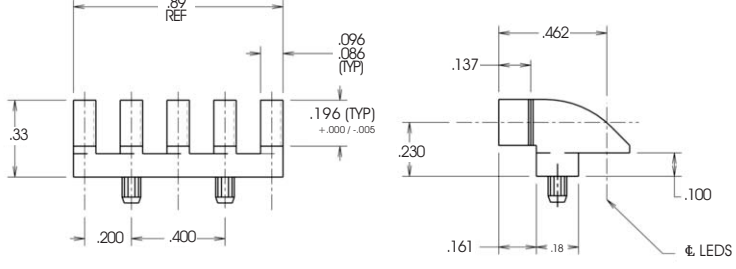
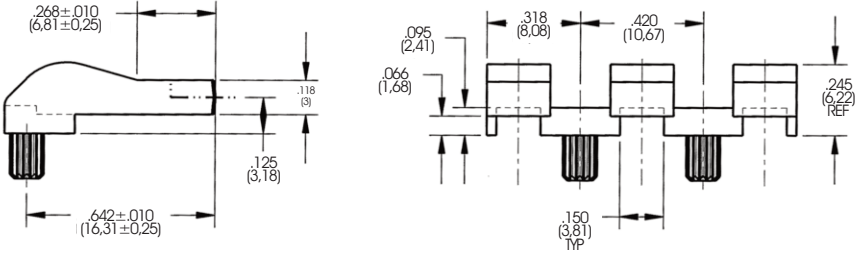
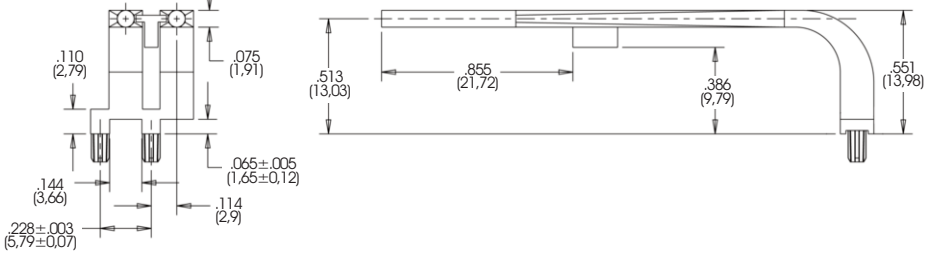
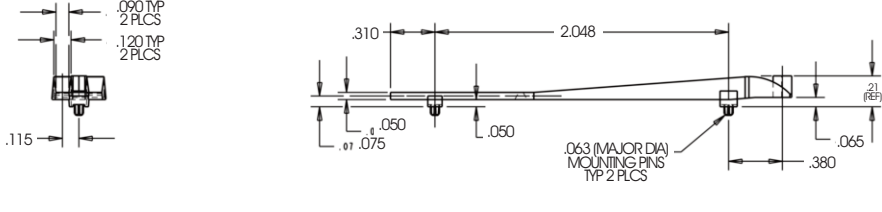
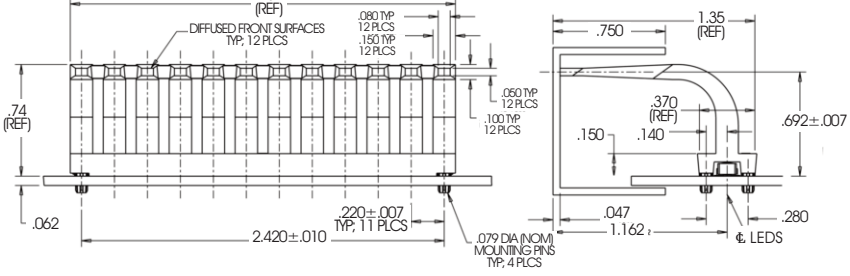
\* 'X' represents a variable part number. See page 17 for LED details.

| Part Number                                                                                                    | Drawing                                                                              | Suggested LED                                                                     |
|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|  <p><b>515-1030F</b></p>       |    | 597-5XXX-407F                                                                     |
|  <p><b>515-1071F</b></p>       |    | 597-3111-407F<br>597-3201-407F<br>597-3311-407F<br>597-3401-407F                  |
|  <p><b>515-1069F</b></p>      |   | 597-3111-407F<br>597-3201-407F<br>597-3311-407F<br>597-3401-407F                  |
|  <p><b>515-1020F</b></p>     |  | 597-3111-407F<br>597-3201-407F<br>597-3311-407F<br>597-3401-407F                  |
|  <p><b>515-1020-804F</b></p> |  | 597-3XX1-407F                                                                     |
|  <p><b>515-1020-805F</b></p> |  | 597-3111-407F<br>597-3201-407F<br>597-3311-407F<br>597-3401-407F<br>598-8210-107F |

\* 'X' represents a variable part number. See page 17 for LED details.

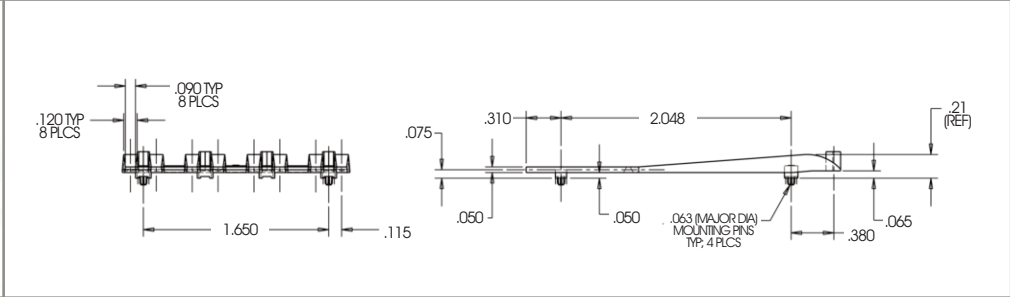
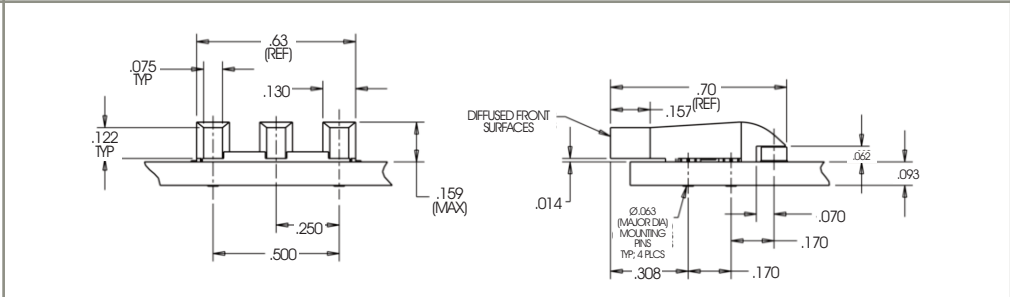
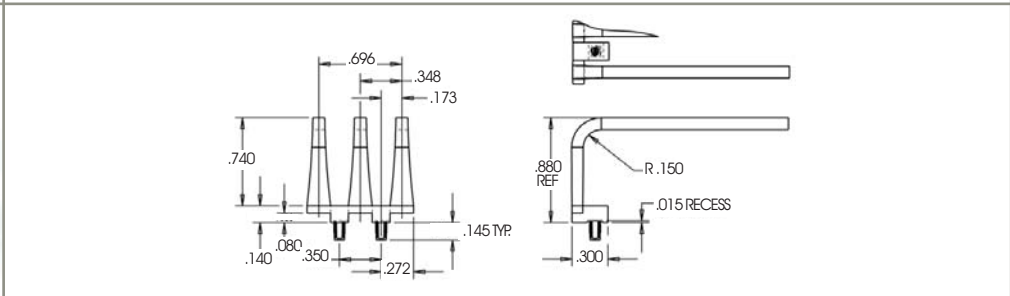
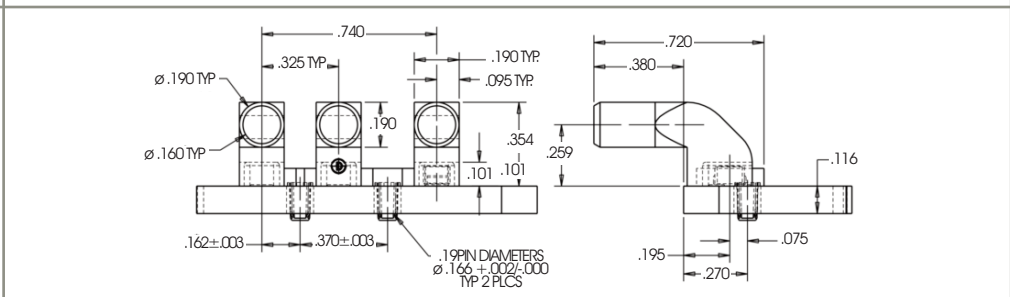
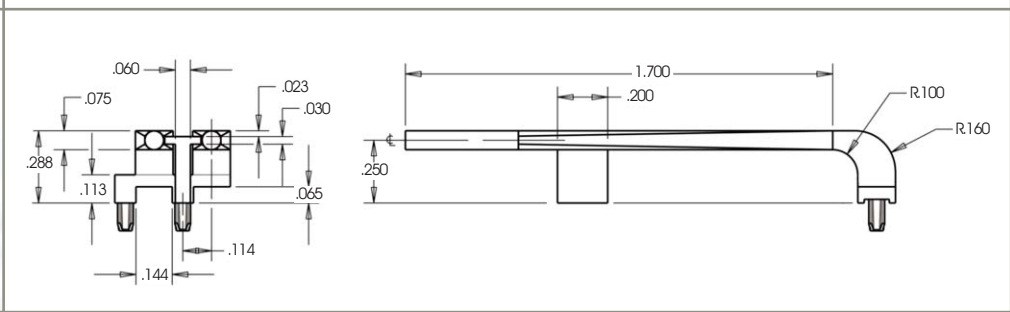
| Part Number                                                                                                    | Drawing                                                                              | Suggested LED                                                              |
|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
|  <p><b>515-1020-806F</b></p>  |    | <p>597-3XX1-407F<br/>597-5X11-407F<br/>597-5202-407F<br/>598-8210-107F</p> |
|  <p><b>515-1048F</b></p>      |    | <p>597-3XX1-407F<br/>597-5X11-407F<br/>597-5202-407F</p>                   |
|  <p><b>515-1048-801F</b></p> |   | <p>597-3XX1-407F<br/>597-5X11-407F<br/>597-5202-407F<br/>598-8210-107F</p> |
|  <p><b>515-1037F</b></p>     |  | <p>597-3XX1-207F<br/>597-77X1-207F</p>                                     |
|  <p><b>515-1010F</b></p>     |  | <p>597-3XX1-207F<br/>597-77X1-207F</p>                                     |
|  <p><b>515-1051F</b></p>    |  | <p>597-3XX1-207F<br/>597-77X1-207F</p>                                     |

\* 'X' represents a variable part number. See page 17 for LED details.

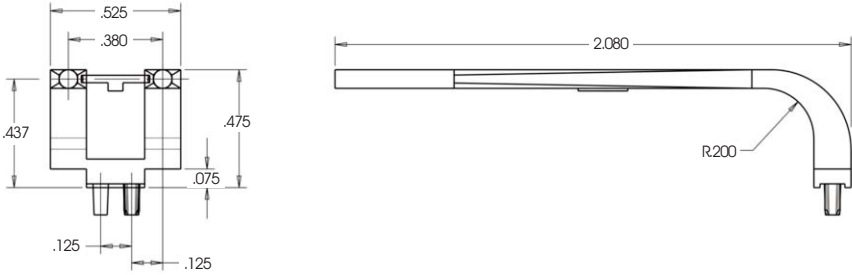
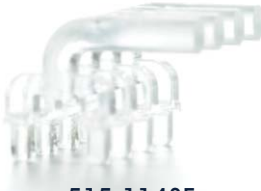
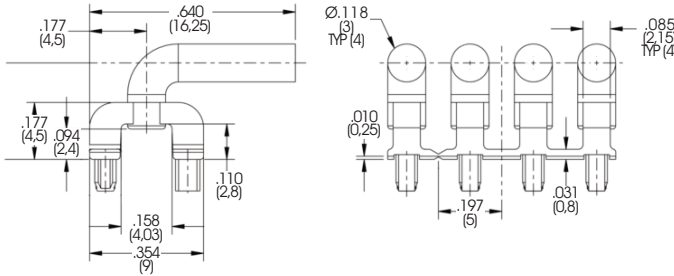
| Part Number                                                                                                  | Drawing                                                                              | Suggested LED*                                           |
|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------------------------|
|  <p><b>515-1005-801F</b></p> |    | <p>597-3XX1-507F<br/>597-77X1-507F<br/>597-3XX1-407F</p> |
|  <p><b>515-1029F</b></p>    |    | <p>597-3XX1-207F<br/>597-77X1-207F</p>                   |
|  <p><b>515-1000F</b></p>    |   | <p>597-3XX1-207F<br/>597-77X1-207F</p>                   |
|  <p><b>515-1118F</b></p>   |  | <p>597-3XX1-507F<br/>597-77X1-507F</p>                   |
|  <p><b>515-1110F</b></p>   |  | <p>597-3XX1-507F<br/>597-77X1-507F</p>                   |
|  <p><b>515-1093F</b></p>   |  | <p>597-3XX1-207F<br/>597-77X1-207F</p>                   |

\* 'X' represents a variable part number. See page 17 for LED details.

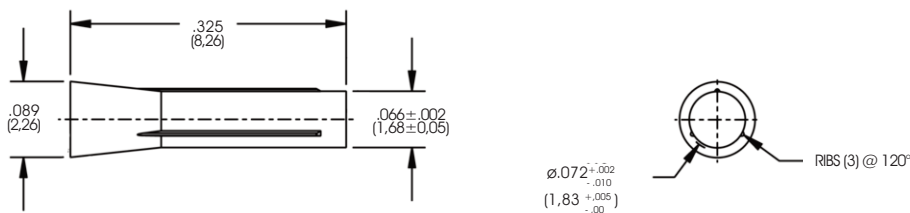
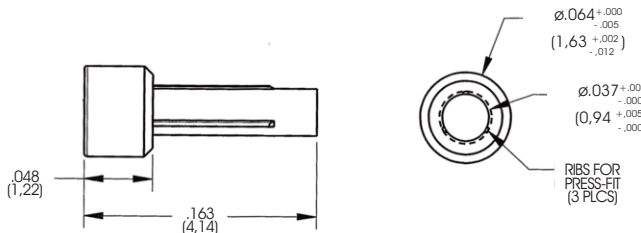
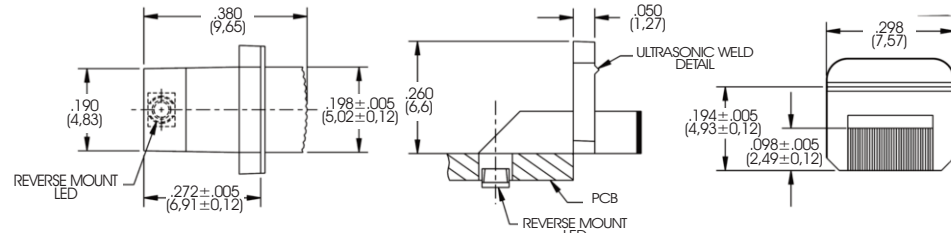
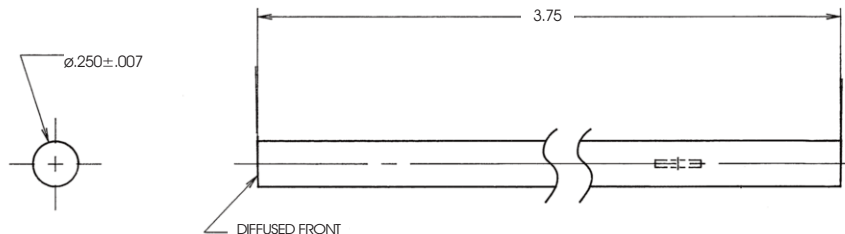


| Part Number                                                                                         | Drawing                                                                              | Suggested LED*                         |
|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------|
|  <p>515-1097F</p>   |    | <p>597-3XX1-507F<br/>597-77X1-507F</p> |
|  <p>515-1106F</p>  |   | <p>597-3XX1-507F<br/>597-77X1-507F</p> |
|  <p>515-1113F</p> |  | <p>597-3XX1-207F<br/>597-77X1-207F</p> |
|  <p>515-1120F</p> |  | <p>597-3XX1-207F<br/>597-77X1-207F</p> |
|  <p>515-1126F</p> |  | <p>597-3XX1-507F<br/>597-77X1-507F</p> |

\* 'X' represents a variable part number. See page 17 for LED details.

| Part Number                                                                                   | Drawing                                                                            | Suggested LED*                 |
|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------|
| <br>515-1132F |  | 597-3XX1-507F<br>597-77X1-507F |
| <br>515-1143F |  | 597-3XX1-207F<br>597-77X1-207F |

## Panel Mount Single Position

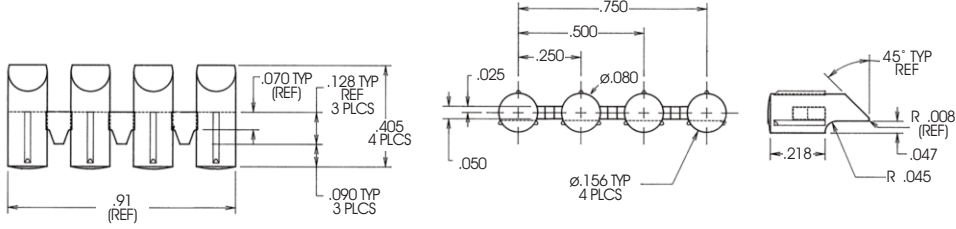
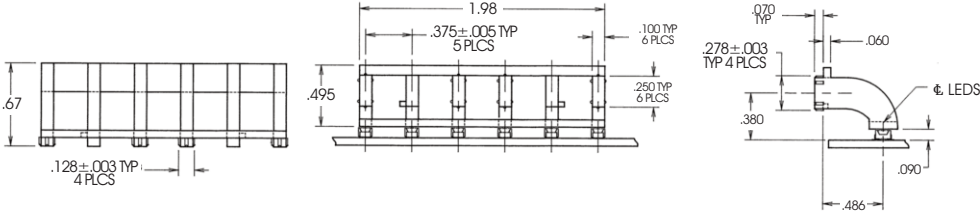
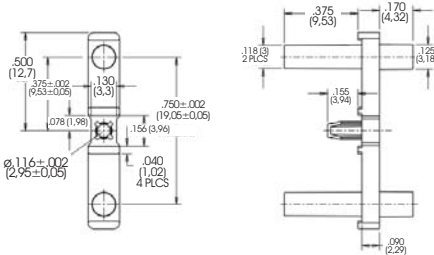
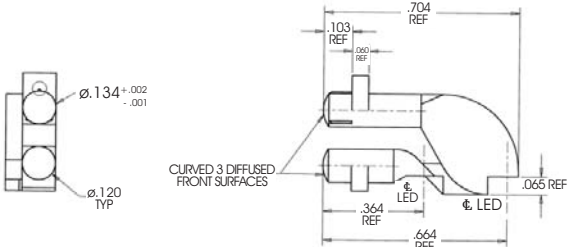
|                                                                                                  |                                                                                      |                                                                                                    |
|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| <br>515-1027F  |   | 597-2XX1-407F<br>597-2X01-207F                                                                     |
| <br>515-1016F |  | 597-2XX1-407F<br>597-2X01-207F                                                                     |
| <br>515-1004F |  | 597-3111-407F<br>597-3201-407F<br>597-3311-407F<br>597-3401-407F<br>597-6XX1-607F<br>597-77X3-607F |
| <br>515-1047F  |  | 597-3XX1-207F<br>597-77X1-207F<br>597-3XX1-507F<br>597-77X1-507F                                   |

\* 'X' represents a variable part number. See page 17 for LED details.







| Part Number                                                                                      | Drawing                                                                              | Suggested LED*                                                   |
|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------|
| <br>515-1040F    |    | 597-3XX1-207F<br>597-77X1-207F<br>597-3XX1-507F<br>597-77X1-507F |
| <br>515-1046F   |    | 597-3XX1-207F<br>597-77X1-207F<br>597-3XX1-507F<br>597-77X1-507F |
| <br>515-1133F   |   | 597-3XX1-207F<br>597-77X1-207F<br>597-3XX1-507F<br>597-77X1-507F |
| <br>515-1156F |  | 597-3XX1-507F<br>597-77X1-507F                                   |

\* 'X' represents a variable part number. See page 17 for LED details.

## Recommended Micro LED® Surface Mount LEDs

|                                                                                    | Dialight Part Number | Color        | Material      | Dom. λ Typ. (nm) | Intensity Typ. (mcd) | Forward Voltage Typ. (V) | Viewing Angle (Deg.) | Height (mm) | Test Current (mA) | Type         |
|------------------------------------------------------------------------------------|----------------------|--------------|---------------|------------------|----------------------|--------------------------|----------------------|-------------|-------------------|--------------|
| 1206 Series Package (3.2mm X 1.6 X Height) Reverse Mount                           |                      |              |               |                  |                      |                          |                      |             |                   |              |
|  | 597-6001-607F        | Red          | AlInGaP       | 631              | 150                  | 2.0                      | 70                   | 1.1         | 20                | Single Color |
|                                                                                    | 597-6201-607F        | Orange       | AlInGaP       | 605              | 260                  | 2.0                      | 70                   | 1.1         | 20                | Single Color |
|                                                                                    | 597-6301-607F        | Green        | InGaP         | 525              | 410                  | 3.0                      | 70                   | 1.1         | 20                | Single Color |
|                                                                                    | 597-6401-607F        | Yellow       | AlInGaP       | 587              | 240                  | 2.0                      | 70                   | 1.1         | 20                | Single Color |
|                                                                                    | 597-6501-607F        | Yellow-Green | AlInGaP       | 572              | 104                  | 2.2                      | 70                   | 1.1         | 20                | Single Color |
|                                                                                    | 597-6601-607F        | Blue         | InGaP         | 470              | 112                  | 3.0                      | 70                   | 1.1         | 20                | Single Color |
|                                                                                    | 597-6901-607F        | White        | InGaP         | x .304,y.301     | 70                   | 3                        | 70                   | 1.1         | 5                 | Single Color |
|                                                                                    | 597-7703-607F        | Red/Green    | AlInGaP       | 631/571          | 55/45                | 2.0                      | 130                  | 1.1         | 20                | Bi-Color     |
|                                                                                    | 597-7783-607F        | Red/Blue     | AlInGaP/InGaP | 631/470          | 45/45                | 2.0/3.3                  | 130                  | 1.1         | 20                | Bi-Color     |
| 5mm Through Hole LEDs                                                              |                      |              |               |                  |                      |                          |                      |             |                   |              |
|  | 521-9247F            | Red          | -             | 635              | 60                   | 2.6                      | 35                   | 5           | 10                | Single Color |
|                                                                                    | 521-9249F            | Yellow       | -             | 588              | 90                   | 2.1                      | 16                   | 5           | 20                | Single Color |
|                                                                                    | 521-9251F            | Green        | -             | 565              | 70                   | 2.7                      | 24                   | 5           | 10                | Single Color |

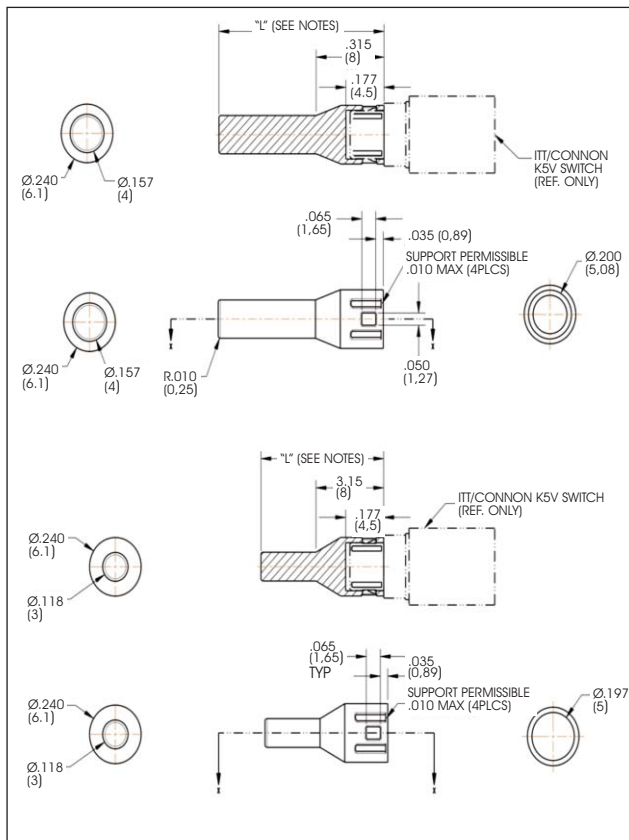
## Recommended Micro LED® Surface Mount LEDs

| ChipLED                                                                             | Dialight Part Number | Color                  | Material                    | Dom. $\lambda$ Typ. (nm) | Intensity Typ. (mcd) | Forward Voltage Typ. (V) | Viewing Angle (Deg.) | Height (mm) | Test Current (mA) | Type         |
|-------------------------------------------------------------------------------------|----------------------|------------------------|-----------------------------|--------------------------|----------------------|--------------------------|----------------------|-------------|-------------------|--------------|
| <b>0603 Series Package (1.6mm X 0.8mm X Height)</b>                                 |                      |                        |                             |                          |                      |                          |                      |             |                   |              |
|    | 597-5004-407F        | Red                    | AlInGaP                     | 626                      | 50                   | 1.9                      | 152                  | 0.7         | 20                | Single Color |
|                                                                                     | 597-5112-407F        | Red                    | AlGaAs                      | 647                      | 11.7                 | 1.7                      | 152                  | 0.7         | 20                | Single Color |
|                                                                                     | 597-5203-407F        | Orange                 | GaAsP                       | 606                      | 3.4                  | 2.2                      | 152                  | 0.7         | 20                | Single Color |
|                                                                                     | 597-5213-407F        | Orange                 | AlInGaP                     | 605                      | 65                   | 1.9                      | 152                  | 0.7         | 20                | Single Color |
|                                                                                     | 597-5223-407F        | Yellow                 | AlInGaP                     | 590                      | 65                   | 1.9                      | 152                  | 0.7         | 20                | Single Color |
|                                                                                     | 597-5312-407F        | Green                  | GaP                         | 567                      | 6.4                  | 2.1                      | 152                  | 0.7         | 20                | Single Color |
|                                                                                     | 597-5412-407F        | Yellow-Green           | GaP                         | 572                      | 11.7                 | 2.1                      | 152                  | 0.7         | 20                | Single Color |
| <b>0805 Series Package (2.0mm X 1.25mm X Height)</b>                                |                      |                        |                             |                          |                      |                          |                      |             |                   |              |
|    | 597-5111-407F        | Red                    | AlGaAs                      | 647                      | 11.7                 | 1.7                      | 150                  | 0.8         | 20                | Single Color |
|                                                                                     | 597-5202-407F        | Orange                 | GaP                         | 606                      | 3.7                  | 2.2                      | 150                  | 0.8         | 20                | Single Color |
|                                                                                     | 597-5311-407F        | Green                  | GaP                         | 567                      | 6.4                  | 2.1                      | 150                  | 0.8         | 20                | Single Color |
|                                                                                     | 597-5411-407F        | Yellow                 | GaP                         | 572                      | 11.7                 | 2.1                      | 150                  | 0.8         | 20                | Single Color |
| <b>1206 Series Package (3.2mm X 1.6mm X Height)</b>                                 |                      |                        |                             |                          |                      |                          |                      |             |                   |              |
|    | 598-8210-107F        | Red                    | AlInGaP                     | 635                      | 40                   | 2.2                      | 140                  | 0.7         | 20                | Single Color |
| <b>1206 Series Package with Lens (3.0mm X 1.6mm X Height)</b>                       |                      |                        |                             |                          |                      |                          |                      |             |                   |              |
|    | 597-3111-407F        | Red                    | GaAlAs                      | 647                      | 33.6                 | 1.7                      | 70                   | 1.5         | 20                | Single Color |
|                                                                                     | 597-3201-407F        | Orange                 | GaAsP/GaP                   | 606                      | 9                    | 2.2                      | 70                   | 1.5         | 20                | Single Color |
|                                                                                     | 597-3311-407F        | Green                  | GaP                         | 567                      | 12                   | 2.1                      | 70                   | 1.5         | 20                | Single Color |
|                                                                                     | 597-3401-407F        | Yellow                 | GaAsP                       | 590                      | 6                    | 2.2                      | 70                   | 1.5         | 20                | Single Color |
|                                                                                     | 597-3021-407F        | Red                    | AlInGaP                     | 626                      | 240                  | 1.9                      | 60                   | 1.5         | 20                | Single Color |
|                                                                                     | 597-3003-407F        | Red                    | AlInGaP                     | 626                      | 50                   | 1.9                      | 150                  | 0.8         | 20                | Single Color |
|                                                                                     | 597-3212-407F        | Orange                 | AlInGaP                     | 605                      | 65                   | 1.9                      | 150                  | 0.8         | 20                | Single Color |
|                                                                                     | 597-3222-407F        | Amber                  | AlInGaP                     | 590                      | 65                   | 1.9                      | 150                  | 0.8         | 20                | Single Color |
|                                                                                     | 597-3612-407F        | Blue                   | InGaP                       | 470                      | 133                  | 3.3                      | 50                   | 1.5         | 20                | Single Color |
|                                                                                     | 597-3325-407F        | Green                  | InGaP                       | 525                      | 415                  | 3.3                      | 50                   | 1.5         | 20                | Single Color |
|                                                                                     | 597-3312-407F        | Green                  | AlInGaP                     | 561                      | 42                   | 2.1                      | 60                   | 1.5         | 20                | Single Color |
|                                                                                     | 597-3202-407F        | Orange                 | AlInGaP                     | 605                      | 240                  | 1.9                      | 60                   | 1.5         | 20                | Single Color |
| <b>1208 Series Package (3.0mm X 2.0mm X Height)</b>                                 |                      |                        |                             |                          |                      |                          |                      |             |                   |              |
|  | 597-2111-407F        | Red                    | GaAlAs                      | 647                      | 12.4                 | 1.7                      | 130                  | 1           | 20                | Single Color |
|                                                                                     | 597-2201-407F        | Amber                  | GaAsP/GaP                   | 606                      | 3                    | 2.2                      | 130                  | 1           | 20                | Single Color |
|                                                                                     | 597-2311-407F        | Green                  | GaP                         | 567                      | 5.2                  | 2.1                      | 130                  | 1           | 20                | Single Color |
|                                                                                     | 597-2401-407F        | Yellow                 | GaAsP/GaP                   | 590                      | 3                    | 2.2                      | 130                  | 1           | 20                | Single Color |
|                                                                                     | 597-2712-607F        | Red/<br>Green/<br>Blue | AlInGaP/<br>InGaP/<br>InGaP | 624/<br>525/<br>470      | 110/<br>280/<br>100  | 2/<br>3.5/<br>3.5        | 130                  | 1           | 20                | Tri-Color    |
|                                                                                     | 597-2751-607F        | Red/Green              | AlInGaP                     | 631/571                  | 45/35                | 2                        | 130                  | 1           | 20                | Bi-Color     |
|                                                                                     | 597-2723-607F        | Yellow/Green           | AlInGaP                     | 589/571                  | 75/35                | 2.0                      | 130                  | 1           | 20                | Bi-Color     |
| <b>1208 Series Package with Reflector (3.0mm X 3.0mm X Height)</b>                  |                      |                        |                             |                          |                      |                          |                      |             |                   |              |
|  | 597-3021-507F        | Red                    | GaAsP                       | 653                      | 6.3                  | 2                        | 110                  | 1.3         | 20                | Single Color |
|                                                                                     | 597-3111-507F        | Red                    | AlGaAs                      | 662                      | 16                   | 1.75                     | 110                  | 1.3         | 20                | Single Color |
|                                                                                     | 597-3211-507F        | Orange                 | GaAsP                       | 612                      | 10                   | 2                        | 110                  | 1.3         | 20                | Single Color |
|                                                                                     | 597-3301-507F        | Green                  | AlInGaP                     | 573                      | 25                   | 2.2                      | 110                  | 1.3         | 20                | Single Color |
|                                                                                     | 597-3401-507F        | Yellow                 | GaAsP                       | 588                      | 6.3                  | 2.1                      | 110                  | 1.3         | 20                | Single Color |
| <b>PLCC-2 Series Package with Reflector (3.5mm X 2.8mm X Height)</b>                |                      |                        |                             |                          |                      |                          |                      |             |                   |              |
|  | 597-3001-207F        | Red                    | GaAsP/GaP                   | 620                      | 10                   | 2                        | 120                  | 1.9         | 20                | Single Color |
|                                                                                     | 597-3121-207F        | Red                    | AlGaAs                      | 645                      | 35.5                 | 1.75                     | 120                  | 1.9         | 10                | Single Color |
|                                                                                     | 597-3211-207F        | Orange                 | GaAsP/GaP                   | 606                      | 18.3                 | 2                        | 120                  | 1.9         | 10                | Single Color |
|                                                                                     | 597-3301-207F        | Green                  | GaAsP/GaP                   | 570                      | 19.6                 | 2                        | 120                  | 1.9         | 10                | Single Color |
|                                                                                     | 597-3401-207F        | Yellow                 | GaAsP/GaP                   | 587                      | 12.6                 | 2                        | 120                  | 1.9         | 10                | Single Color |
|                                                                                     | 597-3601-207F        | Blue                   | InGaP                       | 465                      | 11                   | 3.5                      | 120                  | 1.9         | 10                | Single Color |
|                                                                                     | 597-3231-207F        | Yellow                 | AlInGaP                     | 587                      | 100                  | 2                        | 120                  | 1.9         | 20                | Single Color |
|                                                                                     | 597-3901-207F        | White                  | InGaP                       | x: 0.32<br>y: 0.31       | 135                  | 3.5                      | 120                  | 1.9         | 20                | Single Color |
|                                                                                     | 597-7701-207F        | Red/Green              | GaAsP/GaP                   | 628/570                  | 11.3/11.3            | 2                        | 120                  | 1.9         | 10                | Bi-Color     |
|                                                                                     | 597-7721-207F        | Yellow/Green           | GaP/GaAsP                   | 590/570                  | 16/16                | 2.1/2.0                  | 120                  | 1.9         | 20                | Bi-Color     |
|                                                                                     | 597-7731-207F        | Red/Yellow             | GaAsP                       | 628/590                  | 10.5/10.5            | 2.0/2.0                  | 120                  | 1.9         | 10                | Bi-Color     |
|                                                                                     | 597-7741-207F        | Orange/Green           | GaAsP/GaP                   | 606/570                  | 11.3/17.6            | 2                        | 120                  | 1.9         | 10                | Bi-Color     |
|                                                                                     | 597-7761-207F        | Orange/Green           | GaAsP/GaP                   | 605/557                  | 11.3/17.6            | 2                        | 120                  | 1.9         | 10                | Bi-Color     |
|                                                                                     | 597-7781-207F        | Red/Blue               | InGaP/GaP                   | 633/467                  | 45/11                | 2.0/3.5                  | 120                  | 1.9         | 10                | Bi-Color     |

## Featured Products



### Optopipe® Lightpipe Actuator Extensions



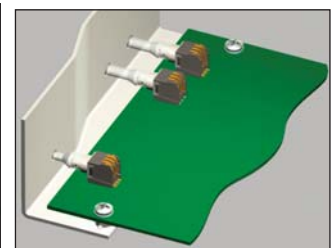
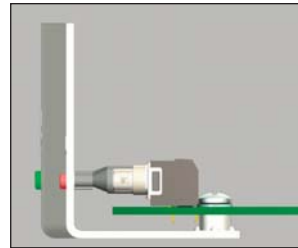
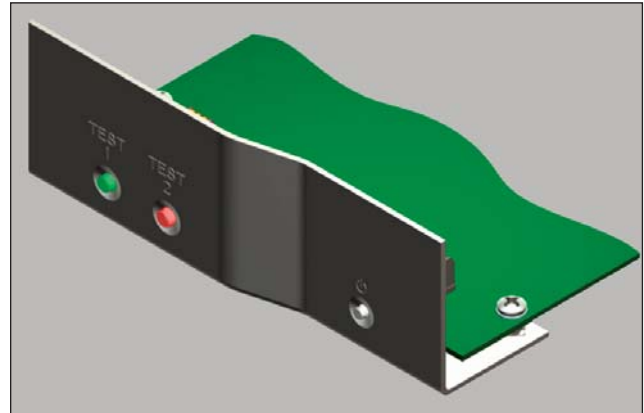
#### Features & Benefits:

- ▷ Fits C&K K5V2 illuminated LED switch
- ▷ Available in 3mm and 4mm diameters
- ▷ Variable length from 10mm to 25mm
- ▷ RoHS compliant
- ▷ Custom color options available (consult factory)
- ▷ Custom length options available (consult factory)
- ▷ Opaque colors available for use with C&K K5V2 nonilluminated switches



#### Application

Dialight Optopipe® actuator extensions are designed for use with C&K K5V2 lighted tactile switches. These snap-in clear lenses do not need to sit on the edge of a PCB and is offered in a variety of sizes to accommodate a range of panel depths. Dialight Optopipe® actuator extensions are ideal for server, storage, network infrastructure, automotive, and medical applications.



#### Order Code

515-114 X-XXX-F

Length in (mm)  
Diameter (mm)

#### Part Numbers: 4mm diameter

| Part Number   | Length |
|---------------|--------|
| 515-1140-100F | 10mm   |
| 515-1140-120F | 12mm   |
| 515-1140-125F | 12.5mm |
| 515-1140-130F | 13mm   |
| 515-1140-195F | 19.5mm |
| 515-1140-225F | 22.5mm |
| 515-1140-235F | 23.5mm |
| 515-1140-250F | 25mm   |

#### Part Numbers: 3mm diameter

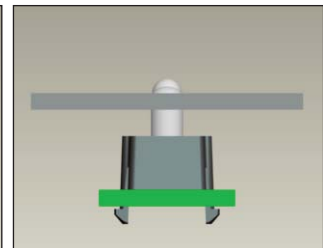
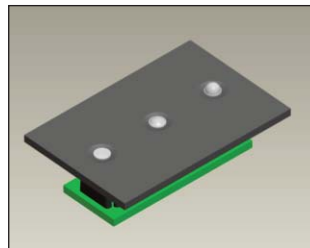
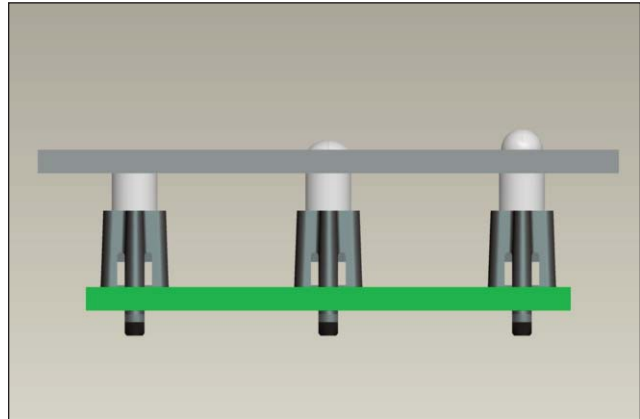
| Part Number   | Length |
|---------------|--------|
| 515-1149-145F | 14.5mm |



## Optopipe® Vertical Lightpipes 3mm Diameter

### Application

Dialight Optopipe® vertical light pipes provide an excellent solution for products that contain a PCB that is parallel to the panel in need of indication. These UL94-V0 Water Clear Polycarbonate light pipes are secured to the PCB using a custom snap-fit base that is easy to install. Vertical light pipes are ideal for building automation and other industrial applications where light needs to be transferred from a parallel PC board, or the environment is subject to shock and vibration. A good way to utilize low voltage and low current LEDs, Dialight's optopipes provide a great way to efficiently transfer light.

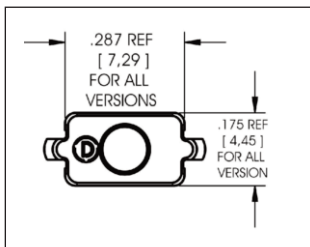
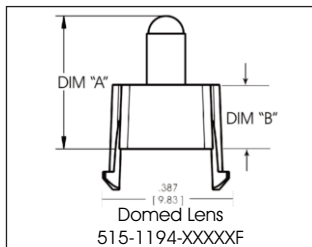
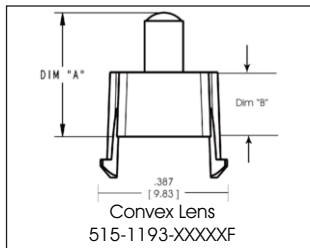
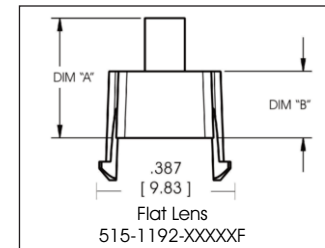


515-119X-X XXXXF

Lens Shape  
2 - Flat  
3 - Convex  
4 - Domed

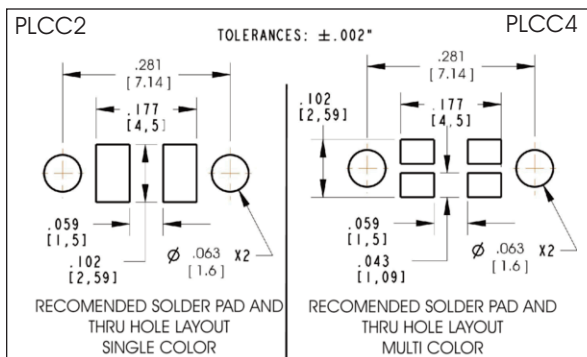
F = Clear, DF = Diffused  
Length inches (mm) see dim A

LED Type  
0 - PLCC2 or PLCC 4  
1 - Chip LED  
2 - Reverse Mount



### Features & Benefits:

- Lengths varying from .250" to 1.250"
- Three lens styles for optimal viewing angles; Flat, Domed, and Convex
- Designed for both single and multi-color LEDs
- Positive snap in mounting to PCB with opaque light barrier
- Low-voltage and minimal power consumption
- Light is produced through photonic emission, not as a by-product of a radiating heat source
- Molded from RoHS compliant UL94-V0 Water Clear Polycarbonate with an oxygen index of 35%.
- Designed to be used with Dialight surface mount led's plcc-2 and plcc-4 pad layout shown, 597-XXXX-207f. See the surface mount selector guide for led operating characteristics. Lower profile surface mount led's in 598 and 597 series can be used as well as, reverse mount led's. Please consult factory for availability.
- Available in clear lens (F) and diffused textured lens (DF)



### Order Codes

| Part Number     | DIM "A" inches (mm) | DIM "B" inches (mm) | Lens Shape |
|-----------------|---------------------|---------------------|------------|
| 515-1192-00250F | .250 (6.35)         | .197 (5)            | Flat       |
| 515-1192-00550F | .550 (13.97)        | .375 (9.53)         | Flat       |
| 515-1192-01000F | 1.000 (25.4)        | .375 (9.53)         | Flat       |
| 515-1194-00300F | .300 (7.62)         | .197 (5)            | Domed      |
| 515-1194-00350F | .350 (8.89)         | .197 (5)            | Domed      |
| 515-1194-00450F | .450 (11.43)        | .197 (5)            | Domed      |
| 515-1194-01000F | 1.000 (25.4)        | .375 (9.53)         | Domed      |

Custom length available, consult factory





## Other Opto Electronic Products Offered by Dialight

*40 Years of LED Experience*

### Prism® Series Right Angle SMT



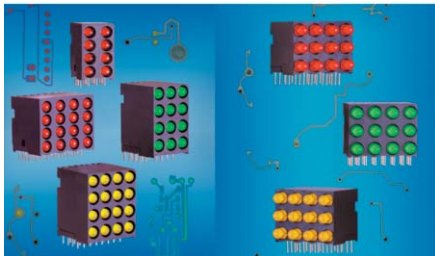
- ▷ Surface mountable solution with integrated optics
- ▷ 2mm & 3mm LEDs
- ▷ Tape and reel / pick and place compatible
- ▷ Can withstand higher temp RoHS solder process and eliminates need for secondary optics or separate process
- ▷ Available with square or round lens, and also in low current version
- ▷ Packaged in single, bi & tri level configurations

▷ RoHS compliant

CBI® Selector Guide

[http://www.dialight.com/Assets/Brochures\\_And\\_Catalogs/Indication/SMT\\_selector\\_guide.pdf](http://www.dialight.com/Assets/Brochures_And_Catalogs/Indication/SMT_selector_guide.pdf)

### Through Hole CBI® Circuit Board Indicators



- ▷ Housed LEDs in variety of configurations including:  
Right angle, vertical & horizontal ganged arrays in single bi, tri, and quad blocks
- ▷ 2mm, 3mm & 5mm
- ▷ Perfect for direct view or backlighting applications
- ▷ Variety of colors and LED types including:  
Single & bi-color, diffused, water-clear, tinted, super-bright, & high efficiency
- ▷ Over 2,500 variations, with custom LED placement available
- ▷ RoHS compliant

CBI® Selector Guide

[www.dialight.com/Assets/Brochures\\_And\\_Catalogs/Indication/CBI\\_Selector\\_Guide.pdf](http://www.dialight.com/Assets/Brochures_And_Catalogs/Indication/CBI_Selector_Guide.pdf)

### Based LED Bulbs 585 & 586 Series



- ▷ Replaces traditional miniature incandescent bulbs with rugged long-lasting and energy-efficient LEDs
- ▷ Design incorporates the most common base styles including:  
T 1 ¾ Midget Flange, Wedge Base and Bi-Pin, T 3 ¼ Mini-Bayonet and Mini-Screw, T2 Telephone Slide and 15 mm Bayonet
- ▷ Voltages from 6, 14 and 28 VDC, 6-36 VDC multi-voltage operation and 125 VAC with non-polarized versions available
- ▷ Colors include – red, green, yellow, blue and white
- ▷ Check *Dialight's Incandescent / Based LED Cross Reference* for our specific replacement part number

Based LED Selector Guide

[http://www.dialight.com/Assets/Brochures\\_And\\_Catalogs/Indication/Based\\_LED\\_selector\\_guide.pdf](http://www.dialight.com/Assets/Brochures_And_Catalogs/Indication/Based_LED_selector_guide.pdf)

### LED Panel Mount Indicators



- ▷ Incorporating the latest LED technology in a tamper-proof enclosure
- ▷ Variety of sizes from .156" – 1"
- ▷ Operating voltages 2-28 VDC, 125 and 230 VAC
- ▷ Some feature a water-tight seal to NEMA 4X / IP66
- ▷ Available in red, green, yellow, orange, blue, cyan and white
- ▷ 556 series is UL recognized, Class 1, Div. II certified versions available
- ▷ Relampable Data Lamp series is available
- ▷ Most use lock washer and nut for secure mounting

LED Panel Mount Indicator Selector Guide

[www.dialight.com/Assets/Brochures\\_And\\_Catalogs/Indication/VER-5x0x.pdf](http://www.dialight.com/Assets/Brochures_And_Catalogs/Indication/VER-5x0x.pdf)

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Dialight:

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[515-1156F](#) [515-1157F](#) [515-1048-801F](#)