



## Specifications

Electrical Ratings	2A @ 36VDC	Actuation Force 16mm	500 ± 100gF
	1A @ 125VAC	19mm	550 ± 100gF
Sealing Degree	IP67	Actuation Travel 16mm	1.6 ± .25mm
		19mm	2.0 ± .25mm
Electrical Life	50,000 cycles typical	Insulation Resistance	≥ 100MΩ min
Contact Resistance	≤ 50mΩ initial	Operating Temperature	-25°C to 55°C
Dielectric Strength	2000Vrms min contact to contact	Storage Temperature	-25°C to 55°C
	2000Vrms min contact to LED		

## Materials

Actuator	Stainless Steel or Nickel Plated Brass or Gold Plated Brass, Aluminum
LED Lens	Polycarbonate (PC)
Threaded Body	Stainless Steel or Nickel Plated Brass or Gold Plated Brass, Aluminum
Terminal Support	Polybutylene Terephthalate (PBT)
Contacts	Silver Alloy
Terminals	Brass, Epoxy Sealed
Hardware	One Hex Nut & One “O” Ring Supplied

## Custom Capabilities Contact Factory

### Cable Assemblies



### Shine Through Symbols



### Custom Laser Etching



### Custom Plastic Convex Actuators



Illuminated Anti-Vandal Pushbutton – 16mm or 19mm

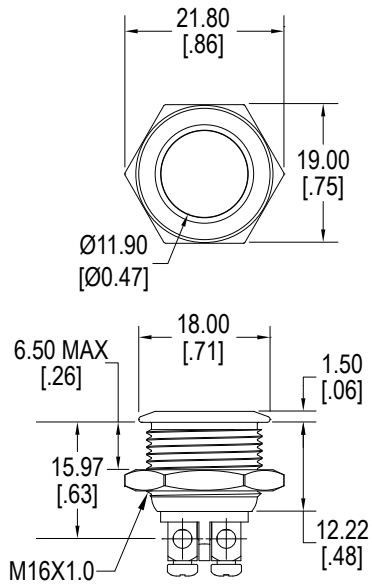
**Ordering Information**

1. Series	BH16	N	R	S	Z	X
BH16 = 16mm BH19 = 19mm						
2. Bezel Style Blank = Standard Bezel H = Straight Bezel						
3. Switch Function N = Momentary						
4. Actuator Style: F = Flush M = Round R = Raised B = Flush, ring illuminated C = Flush dot illuminated E = Raised, ring illuminated Available in 16mm only G = Flush, international stand-by symbol illuminated Available in 16mm only J = Round, ring illuminated Available in 16mm only K = Round, dot illuminated Available in 16mm only L = Raised, dot illuminated Available in 16mm only EC = Epoxy ConvEX contact factory for details						
5. Switch Finish: B = Black anodized aluminum G = Green anodized aluminum Contact factory for availability N = Nickel plated brass P = Gold plated brass R = Red anodized aluminum Contact factory for availability S = Brushed stainless steel U = Blue anodized aluminum Contact factory for availability Y = Yellow anodized aluminum Contact factory for availability						
6. Terminal Options B = Solder Lugs C = Quick Connect Terminal Z = Screw Terminal Not available with RGB LED						
7. LED Color						
X = No LED	RO = Red / Orange dual LED					
R = Red	RY = Red / Yellow dual LED					
Y = Yellow	RG = Red / Green dual LED					
G = Green	RB = Red / Blue dual LED					
B = Blue	OY = Orange / Yellow dual LED					
W = White	OG = Orange / Green dual LED					
O = Orange	OB = Orange / Blue dual LED					
	OW = Orange / White dual LED					
	YG = Yellow / Green dual LED					
	YB = Yellow / Blue dual LED					
	GB = Green / Blue dual LED					
	GW = Green / White dual LED					
	RGB = Red / Green / Blue Available in 16mm only					

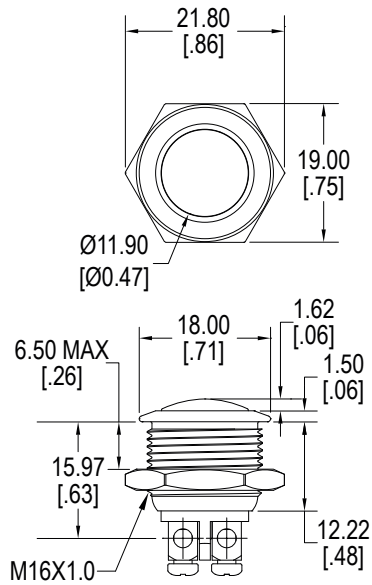
## Dimensions

### 16mm

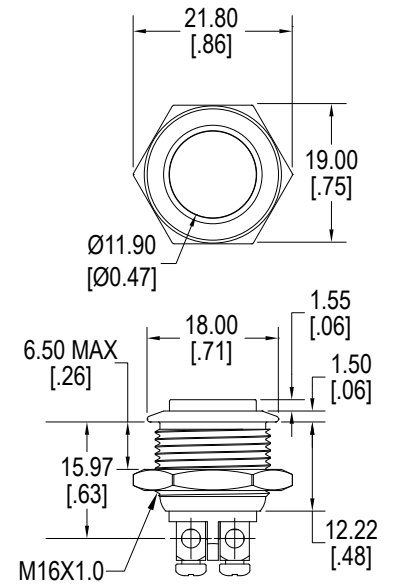
F Actuator



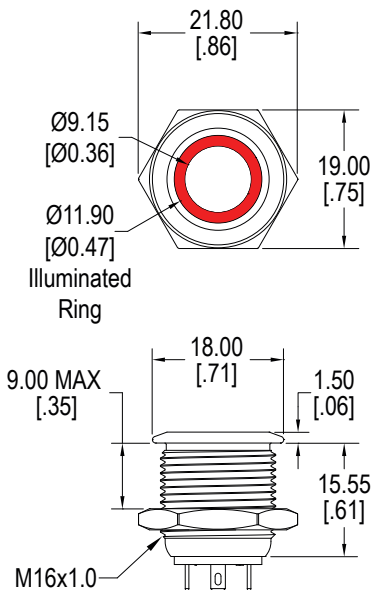
M Actuator



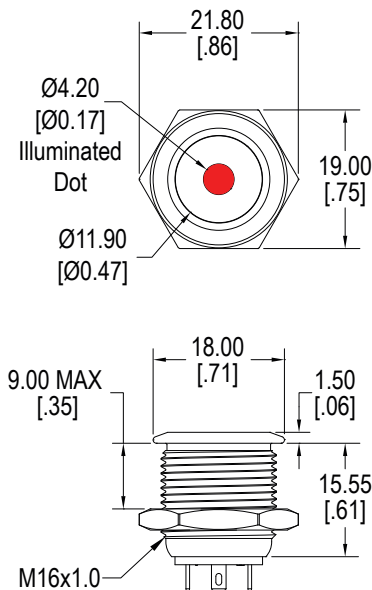
R Actuator



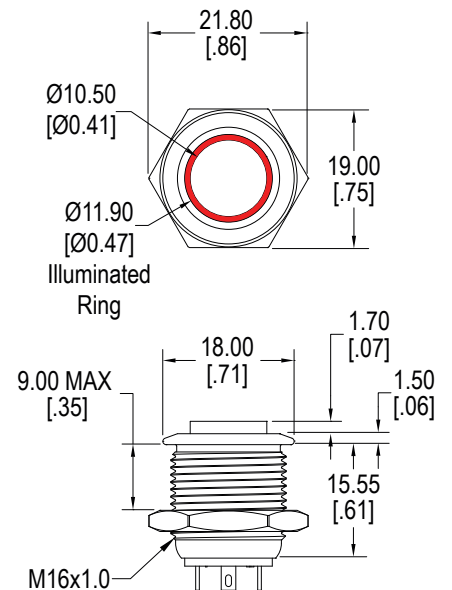
B Actuator



C Actuator



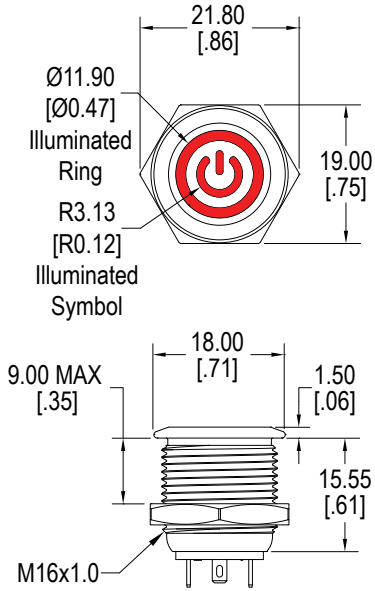
E Actuator



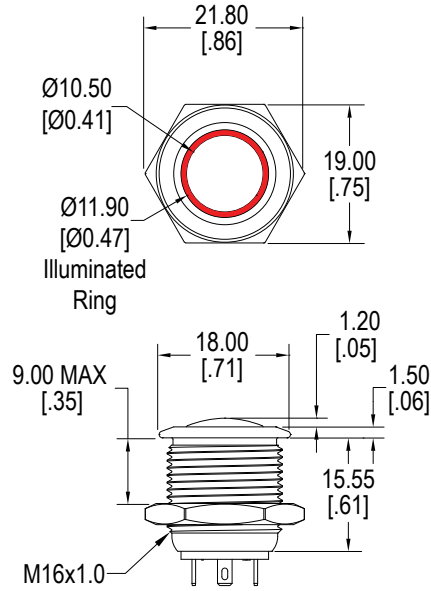
**Dimensions**

16mm

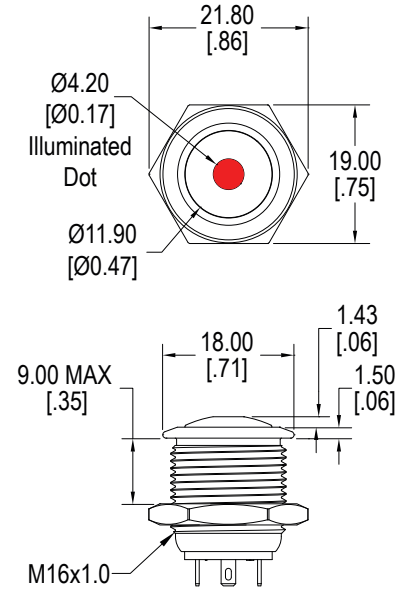
G Actuator



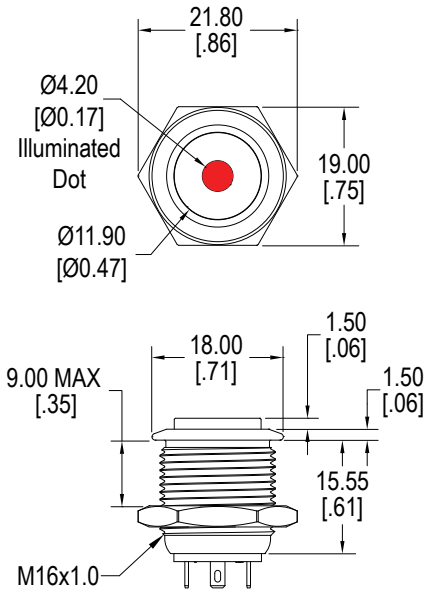
J Actuator



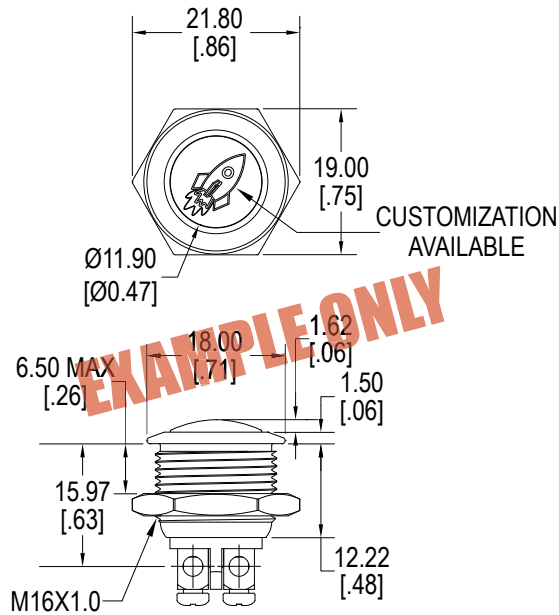
K Actuator



L Actuator



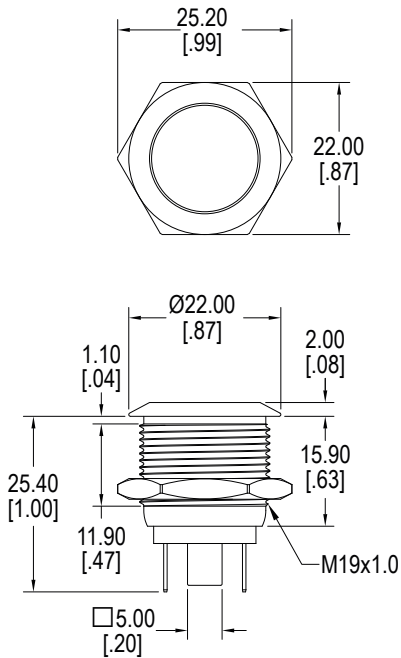
EC Actuator - contact factory



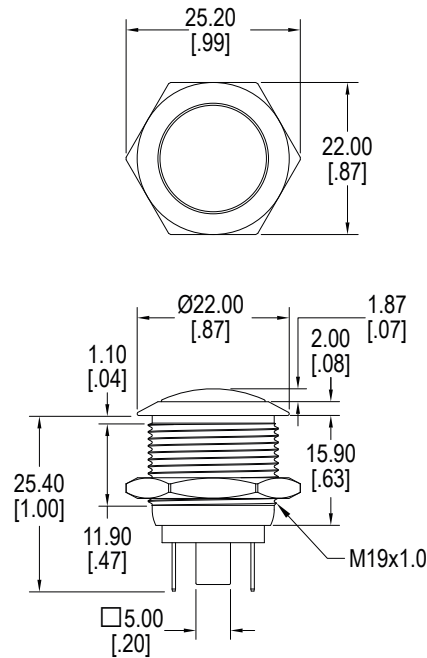
## Dimensions

### 19mm

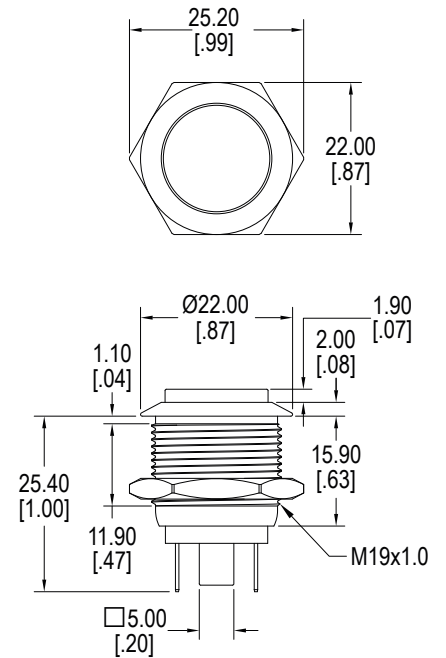
F Actuator



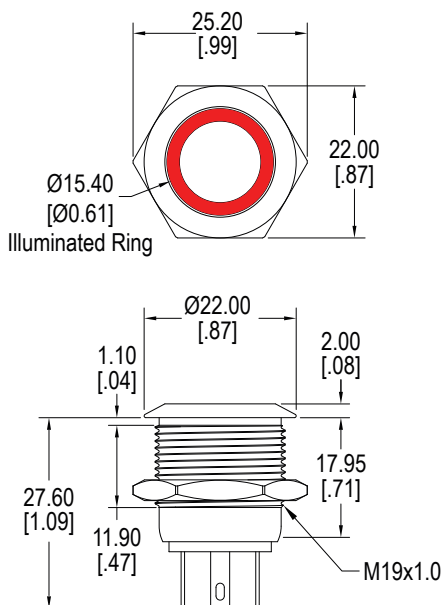
M Actuator



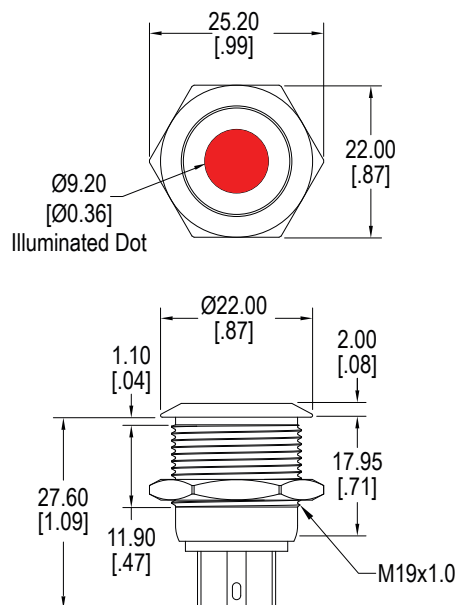
R Actuator



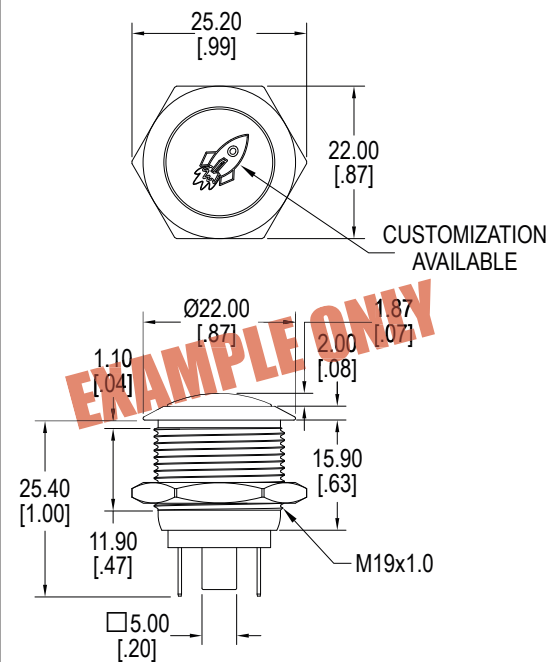
B Actuator



C Actuator



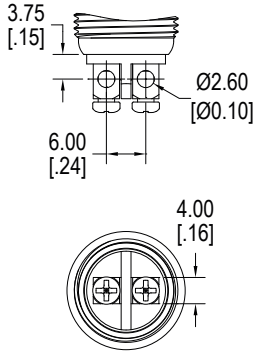
EC Actuator - contact factory



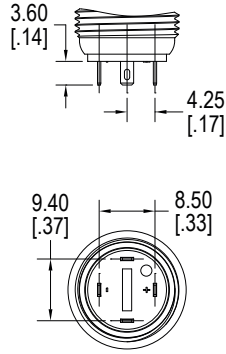
**Terminal Options**

**16mm**

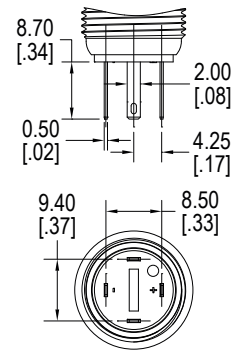
**Screw Terminals**



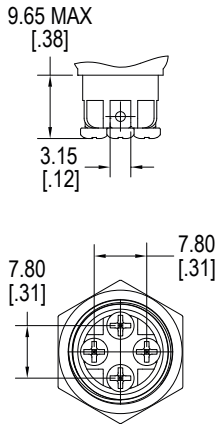
**Solder Lug**



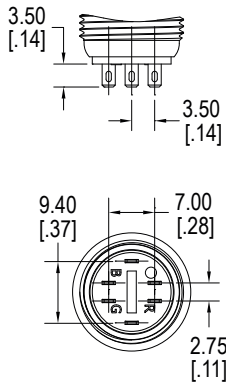
**Quick Connect**



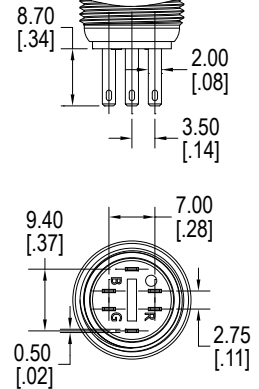
**LED Screw Terminals**



**RGB Solder Lug**

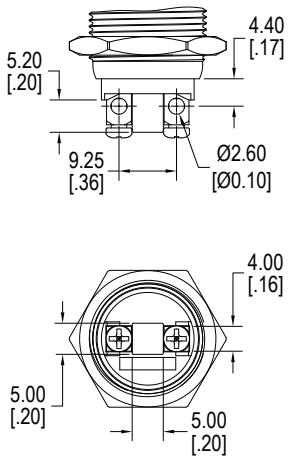


**RGB Quick Connect**

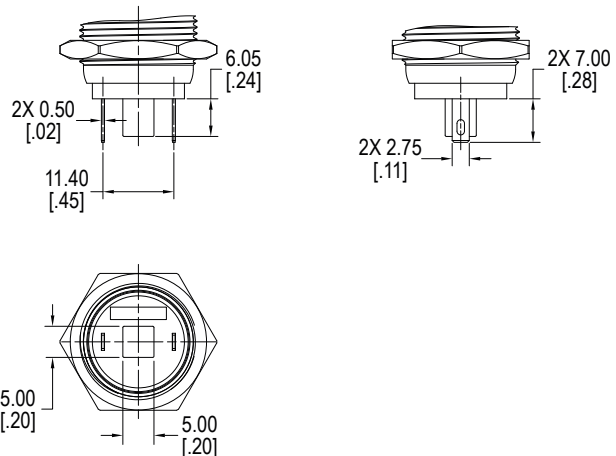


**19mm**

**Screw Terminals**



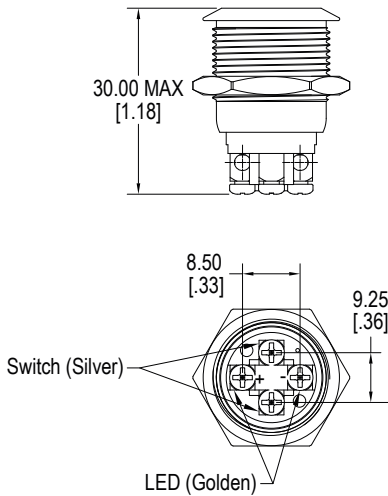
**Solder Lug - .110" Quick Connect**



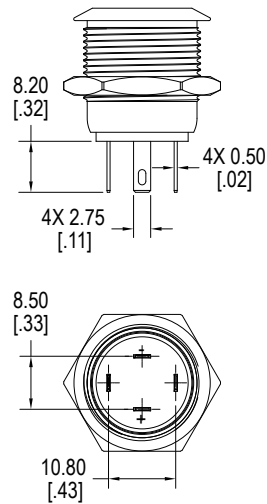
### Terminal Options continued

#### 19mm - continued

##### LED Screw Terminals

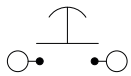


##### LED Solder Lug - .110" Quick Connect

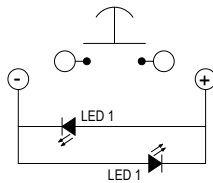


### Schematics

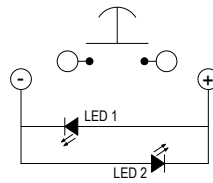
#### Non-Illuminated



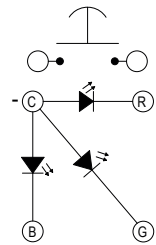
#### Single LED



#### Dual LED

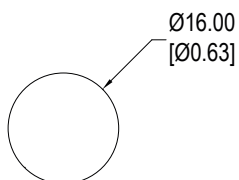


#### RGB LED

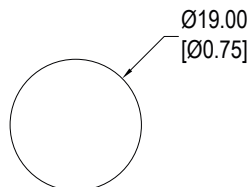


### Panel Cutout

#### 16mm



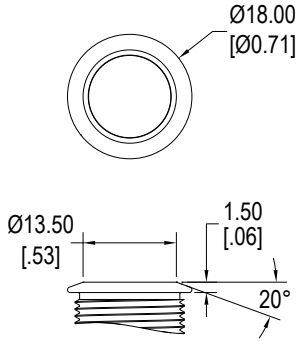
#### 19mm



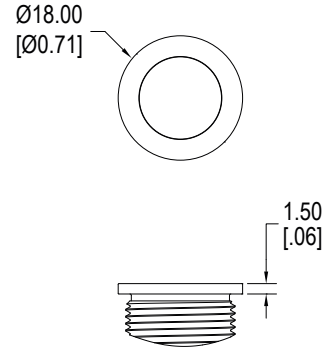
### Bezel Detail

#### 16mm

Standard

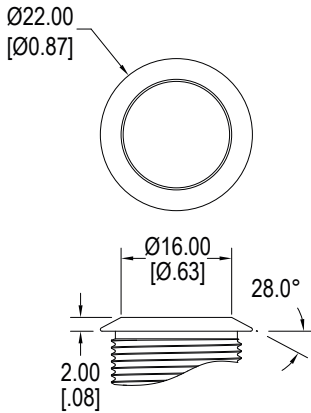


Straight

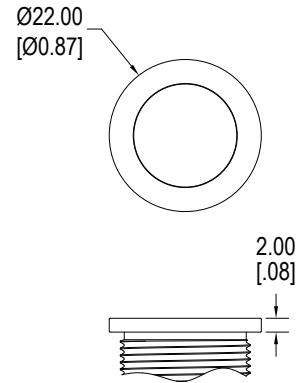


#### 19mm

Standard



Straight



### LED Characteristics

LED Ratings		Color							Units
		R	Y	G	B	O	W		
Reverse Voltage	$V_R$	5	5	5	5	5	5	V	
Forward Current (avg)	$I_F$	25	25	30	30	25	30	mA	
Forward Current (peak)	$I_{FS}$	120	120	160	160	120	160	mA	
Reverse Current $V_R = 5V$	$I_R$	10	10	10	10	10	10	$\mu A$	
Power Dissipation	$P_T$	80	80	120	120	80	120	mW	
Operating & Storage Temperature	$T_A$	-40 ~ +85						$^{\circ}C$	
Forward Voltage (typ) $I_F = 20mA$	$V_F$	2.1	2.1	3.3	3.3	2.0	3.0	V	
Forward Voltage (max) $I_F = 20mA$	$V_F$	2.4	2.5	3.6	3.6	2.3	3.6	V	
Wavelength at Peak Emmission $I_F = 20mA$	$\lambda_P$	635	592	516	463	606	n/a	nm	
Spectral Line Half-Width $I_F = 20mA$	$\Delta\lambda$	14	12	28	20	12	n/a	nm	
Luminous Intensity, $I_F = 20mA$	LI	120	120	170	100	120	700	mcd	
Viewing Angle	$\Theta$	145	145	145	145	145	145	deg	