

## Specifications

| Electrical Ratings | $2 \mathrm{~A} @ 36 \mathrm{VDC}$ <br> $1 \mathrm{~A} @ 125 \mathrm{VAC}$ <br> $0.5 \mathrm{~A} @ 250 \mathrm{VAC}$ |
| :--- | :--- |
| Sealing Degree | IP65 |
| Electrical Life | 50,000 cycles typical |
| Contact Resistance | $\leq 50 \mathrm{~m} \Omega$ initial |
| Dielectric Strength | 2000 Vrms min contact to contact <br> 2000 Vrms min contact to LED |


| Actuation Force 16 mm | $\begin{aligned} & 500 \pm 100 \mathrm{gF} \\ & 550 \pm 100 \mathrm{gF} \end{aligned}$ |
| :---: | :---: |
| Actuation Travel 16mm | $1.6 \pm .25 \mathrm{~mm}$ |
| 19 mm | $2.0 \pm .25 \mathrm{~mm}$ |
| Insulation Resistance | $\geq 100 \mathrm{M} \Omega \mathrm{min}$ |
| Operating Temperature | $-25^{\circ} \mathrm{C}$ to $55^{\circ} \mathrm{C}$ |
| Storage Temperature | $-25^{\circ} \mathrm{C}$ to $55^{\circ} \mathrm{C}$ |

## 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 |

## BH

## Illuminated Pushbutton - 16 mm \& 19mm

## Ordering Information

| 1. Series BH16 | N | R | S | Z | 12 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \mathrm{BH} 16=16 \mathrm{~mm} \\ & \mathrm{BH} 19=19 \mathrm{~mm} \end{aligned}$ |  |  |  |  |  |
| 2. Bezel Style Blank = Standard Bezel H = Straight Bezel |  |  |  |  |  |
| 3. Switch Function $\mathrm{N}=$ Momentary |  |  |  |  |  |
| 4. Actuator Style: <br> F = Flush <br> M = Round <br> R = Raised <br> $B=$ Flush, ring illuminat <br> C = Flush dot illuminate <br> E = Raised, ring illumina <br> G = Flush, international <br> $\mathrm{J}=$ Round, ring illumina <br> $\mathrm{K}=$ Round, dot illuminat <br> L = Raised, dot illumina | Available in 16 mm only, see AH for 19 mm illuminated vailable in 16 mm only, see AH for 19 mm illuminated *Available in 16 mm only, see AH for 19 mm illuminated nd-by symbol illuminated <br> *Available in 16 mm only, see AH for 19 mm illuminated <br> *Available in 16 mm only, see AH for 19 mm illuminated <br> *Available in 16 mm only, see AH for 19 mm illuminated |  |  |  |  |
| 5. Switch Finish: <br> B = Black anodized alum <br> G = Green anodized alu <br> $\mathrm{N}=$ Nickel plated brass <br> P = Gold plated brass <br> $\mathrm{R}=$ Red anodized alum <br> $\mathrm{S}=$ Brushed stainless s <br> $\mathrm{U}=$ Blue anodized alum <br> Y = Yellow anodized alu | um num <br> m <br> m um |  |  |  |  |
| 6. Terminal Options <br> B = Solder Lugs <br> C = Quick Connect Term <br> Z = Screw Terminal *not a | ble with illuminated option |  |  |  |  |
| 7. LED Color ** Only available in $\begin{aligned} & X=\text { No LED } \\ & R=\text { Red } \\ & Y=\text { Yellow } \\ & G=\text { Green } \\ & B=\text { Blue } \\ & W=\text { White } \\ & O=\text { Orange } \end{aligned}$ | $\begin{aligned} & \text { nm diameter } \\ & \text { RO }=\text { Red } / \text { Orange dual LED } \\ & \text { RY }=\text { Red } / \text { Yellow dual LED } \\ & \text { RG }=\text { Red } / \text { Green dual LED } \\ & \text { RB }=\text { Red } / \text { Blue dual LED } \\ & \text { OY }=\text { Orange } / \text { Yellow dual LED } \\ & \text { OG }=\text { Orange } / \text { Green dual LED } \\ & \text { OB }=\text { Orange } / \text { Blue dual LED } \\ & \text { YG }=\text { Yellow } / \text { Green dual LED } \\ & \text { YB }=\text { Yellow } / \text { Blue dual LED } \\ & \text { GB }=\text { Green } / \text { Blue dual LED } \\ & \text { RGB }=\text { Red } / \text { Green } / \text { Blue } \end{aligned}$ |  |  |  |  |

## Dimensions

## 16mm - Actuator Styles



## BH

Illuminated Pushbutton - 19mm

## Dimensions

## 16mm - Actuator Styles, Illuminated



G Style

## Dimensions

## 19mm - Actuator Styles



## BH

Illuminated Pushbutton -16 mm \& 19mm

## 16mm - Terminal Options

| Screw Terminals | Solder Lug | Quick Connect |
| :---: | :---: | :---: |
|  |  |  |
| RGB Solder Lug | RGB Quick Connect |  |

## 19mm - Terminal Options



## Schematics

No LED

## BH

Illuminated Pushbutton -16 mm \& 19mm

## 16mm - Bezel Detail



## 19mm - Bezel Detail



Standard Bezel


Straight Bezel


Straight Bezel

## LED Characteristics

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



## Ordering Information

| 1. Series WP B | 16 | A | X |
| :---: | :---: | :---: | :---: |
| WP |  |  |  |
| 2. Size: $\begin{aligned} & A=40 \mathrm{~mm} \times 115 \mathrm{~mm} \\ & B=70 \mathrm{~mm} \times 115 \mathrm{~mm} \\ & C=86 \mathrm{~mm} \times 86 \mathrm{~mm} \end{aligned}$ |  |  |  |
| 3. Hole Size: <br> $16=16 \mathrm{~mm}$ diameter <br> $19=19 \mathrm{~mm}$ diameter |  |  |  |
| 4. Material <br> A = Brushed aluminum <br> $\mathrm{Y}=$ Brushed aluminum, yellow anodized |  |  |  |
| 5. Laser Etching Symbol: Contact Factory with artwork |  |  |  |

## Dimensions



A


B


## AVH

## Aluminum Anti-Vandal Switch Housing

## Features

- Easy installation
- Multiple size options
- Aluminum housing


## Ordering Information

| 1. Series |
| :---: |
| AVH |



$$
\begin{aligned}
& F=\text { With mounting flange } \\
& T=\text { Without mounting flange }
\end{aligned}
$$

3. Number of Positions:
$1=1$ position
$2=2$ positions
$3=3$ positions
$4=4$ positions
$5=5$ positions
Contact Factory for custom sizes and number of positions
4. Hole Size:
$16=16 \mathrm{~mm}$ diameter
$19=19 \mathrm{~mm}$ diameter

## Dimensions



