

**SPECIFICATIONS**

|                       |  |
|-----------------------|--|
| Electrical Ratings    | 1A @ 24VDC<br>1A @ 125VAC<br>0.5A @ 250VAC                         |
| Electrical Life       | 30,000 cycles typical  |
| Contact Resistance    | < 50 mΩ initial  |
| Actuation Force       | 200 +/- 50gF   |
| Actuator Travel       | 2.5 +/- .3mm   |
| Dielectric Strength:  | 1000Vrms min (contact to contact)<br>1500Vrms min (contact to LED) |
| Insulation Resistance | > 100MΩ min  |
| Operating Temperature | -25°C to 70°C  |
| Storage Temperature   | -25°C to 70°C  |



**MATERIALS ←RoHS COMPLIANT**

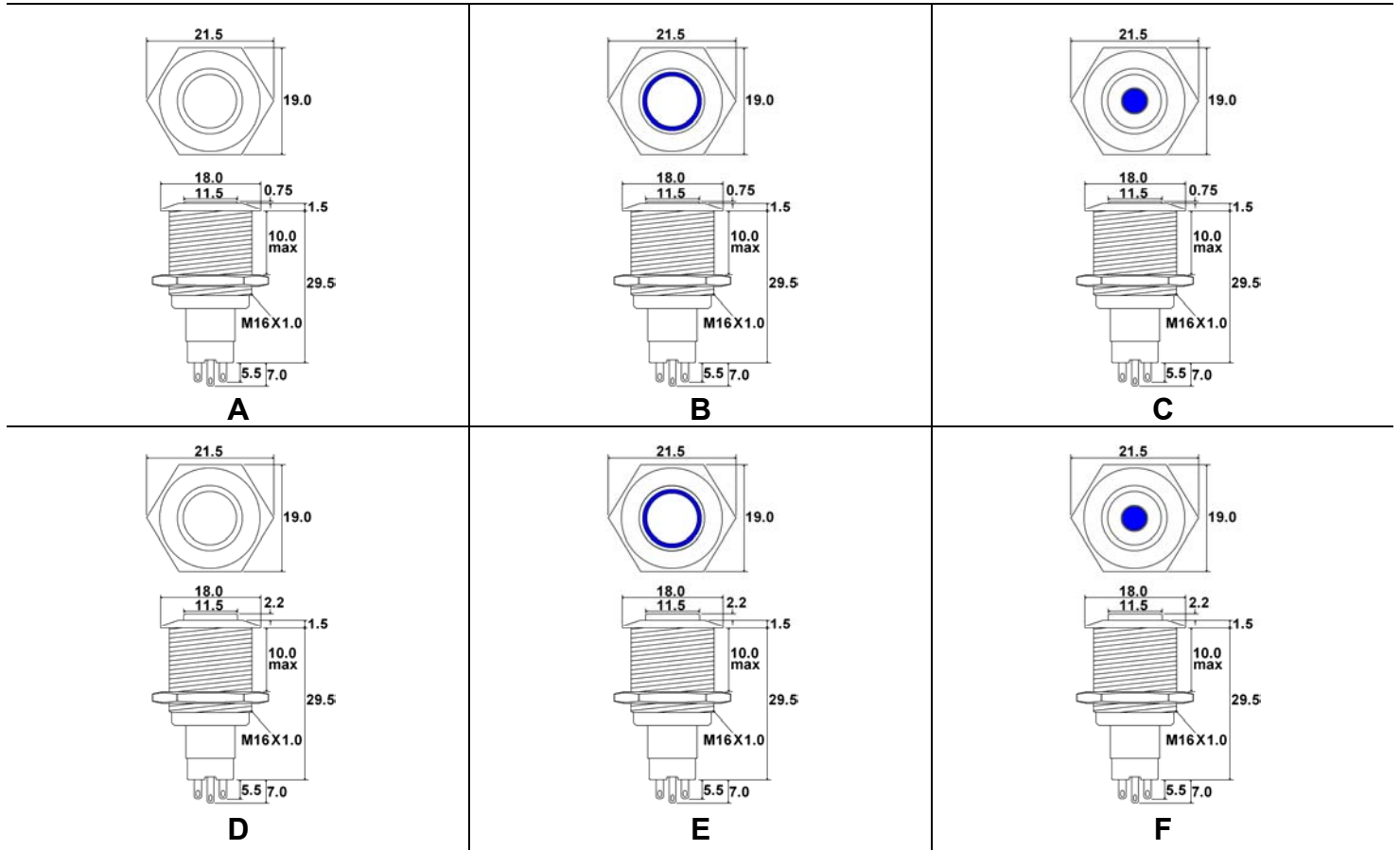
|                   |  |
|-------------------|--|
| Actuator & Body   | Brass, Nickel Plated, Stainless Steel, Black Anodized Aluminum |
| LED Lens          | PC   |
| Nut               | Brass, Nickel Plated   |
| Terminal Support  | PBT  |
| Inner Switch Body | PC   |
| Contacts          | Silver Alloy   |
| Terminals         | Brass, tin plated  |

*Laser etching available, contact factory*

**ORDERING INFORMATION**

|                                       |  |   |          |          |          |          |          |           |
|---------------------------------------|--|---|----------|----------|----------|----------|----------|-----------|
| <b>1. Series:</b>                     | <b>CH</b>  | <b>2</b>  | <b>L</b> | <b>B</b> | <b>N</b> | <b>R</b> | <b>B</b> | <b>12</b> |
| CH                                    |  |   |          |          |          |          |          |           |
| <b>2. Number of Poles:</b>            |  |   |          |          |          |          |          |           |
| 1 = SPDT                              |  |   |          |          |          |          |          |           |
| 2 = DPDT                              |  |   |          |          |          |          |          |           |
| <b>3. Latching Option:</b>            |  |   |          |          |          |          |          |           |
| N = Momentary                         |  |   |          |          |          |          |          |           |
| L = Latching                          |  |   |          |          |          |          |          |           |
| <b>4. Actuator Style:</b>             |  |   |          |          |          |          |          |           |
| A = Flush actuator, non-illuminated   |  |   |          |          |          |          |          |           |
| B = Flush actuator, ring illuminated  |  |   |          |          |          |          |          |           |
| C = Flush actuator, dot illuminated   |  |   |          |          |          |          |          |           |
| D = Raised actuator, non-illuminated  |  |   |          |          |          |          |          |           |
| E = Raised actuator, ring illuminated |  |   |          |          |          |          |          |           |
| F = Raised actuator, dot illuminated  |  |   |          |          |          |          |          |           |
| <b>5. Switch Finish:</b>              |  |   |          |          |          |          |          |           |
| S = Stainless steel                   |  |   |          |          |          |          |          |           |
| N = Nickel plated                     |  |   |          |          |          |          |          |           |
| B = Black                             |  |   |          |          |          |          |          |           |
| <b>6. First LED Color:</b>            |  |   |          |          |          |          |          |           |
| Blank = No First LED                  | G = Green  | O = Orange                                      |          |          |          |          |          |           |
| R = Red                               | B = Blue   |   |          |          |          |          |          |           |
| Y = Yellow                            | W = White**  |   |          |          |          |          |          |           |
| <b>7. Second LED Color:</b>           | <b>**For Bi-color LED Option, White only available in single color</b> |   |          |          |          |          |          |           |
| Blank = No Second LED                 | G = Green  | O = Orange                                      |          |          |          |          |          |           |
| R = Red                               | Y = Yellow   | B = Blue  |          |          |          |          |          |           |
| <b>8. LED Voltage:</b>                |  |   |          |          |          |          |          |           |
| Blank = No LED                        | 24 = 24V   | N = No internal resistor in series with the LED |          |          |          |          |          |           |
| 6 = 6V                                | 110 = 110V   |   |          |          |          |          |          |           |
| 12 = 12V                              | 220 = 220V   |   |          |          |          |          |          |           |
| <b>9. Sealing Options:</b>            |  |   |          |          |          |          |          |           |
| Blank = IP40 (standard)               |  |   |          |          |          |          |          |           |
| S = IP65                              |  |   |          |          |          |          |          |           |

**DIMENSIONS**



**LED CHARACTERISTICS**

| LED Ratings                                |                 | COLORS   |     |     |     |     |     |             | 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         |       |

**SCHEMATICS & PANEL CUT OUT**

