

Illuminated Pushbutton

Specifications

| | | | |
|--------------------|-----------------------|-----------------------|---------------|
| Electrical Ratings | 200mA @ 30VDC | Dielectric Strength | 1000Vrms min |
| Electrical Life | 20,000 cycles typical | Insulation Resistance | >100MΩ min |
| Contact Resistance | <50mΩ initial | Operating Temperature | -40°C to 85°C |
| Actuation Force | 300 ± 100gF | Storage Temperature | -40°C to 85°C |
| Actuation Travel | 2 ± .25mm | | |

Materials

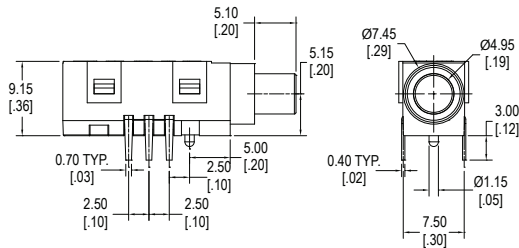
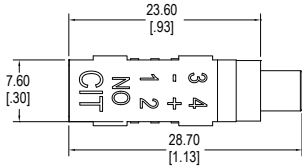
| | |
|-----------|--------------------------------|
| Actuator | Poly Carbonate (PC) |
| Housing | 6/6 Nylon |
| Cover | 6/6 Nylon |
| Contact | Phosphor Bronze, Silver Plated |
| Terminals | Brass, Silver Plated |

Ordering Information

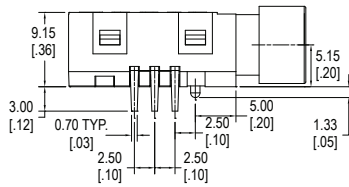
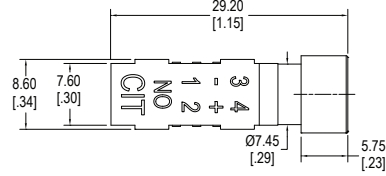
| | | | | | |
|---|---|---|---|---|---|
| 1. Series | DS | A | 2 | B | R |
| DS | | | | | |
| 2. Switch Function | 1 = SPST N.O. 2 = DPST N.O. | | | | |
| 3. Cap Option | N = No cap C = With cap | | | | |
| 4. LED Color | Blank = No LED R = Red G = Green Y = Yellow B = Blue | | | | |
| 5. Second LED Color **For a bi-color LED option | Blank = No second LED color R = Red G = Green Y = Yellow B = Blue | | | | |

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Dimensions

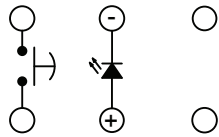


Without Cap

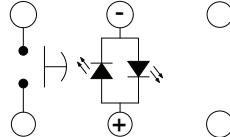


With Cap

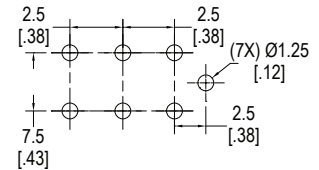
Schematics & PC Layout



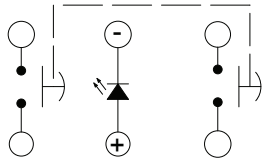
DS1 with LED



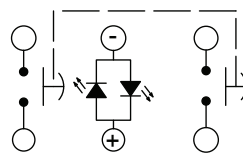
DS1 with bi-color LED



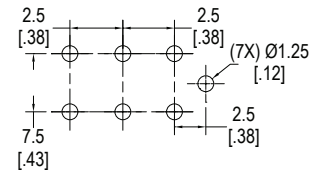
Bottom View



DS2 with LED



DS2 with bi-color LED



Bottom View

LED Characteristics

| LED Ratings | | Color | | | | |
|--|-----------------|-----------|-----|-----|-----|-------------|
| | | R | G | Y | B | Units |
| Reverse Voltage | V_R | 5 | 5 | 5 | 5 | V |
| Forward Current (avg) | I_F | 15 | 30 | 20 | 30 | mA |
| Forward Current (peak) | I_{FS} | 160 | 120 | 80 | 100 | mA |
| Reverse Current $V_R = 5V$ | I_R | 10 | 10 | 10 | 10 | μA |
| Power Dissipation | P_T | 40 | 100 | 60 | 120 | mW |
| Operating & Storage Temperature | T_A | -40 ~ +85 | | | | $^{\circ}C$ |
| Forward Voltage (typ) $I_F = 20mA$ | V_F | 1.7 | 1.7 | 1.7 | 3.5 | V |
| Forward Voltage (max) $I_F = 20mA$ | V_F | 2.6 | 2.6 | 2.6 | 4.0 | V |
| Wavelength at Peak Emmission, $I_F = 20mA$ | λ_P | 697 | 565 | 585 | 470 | nm |
| Spectral Line Half-Width, $I_F = 20mA$ | $\Delta\lambda$ | 90 | 30 | 35 | 25 | nm |
| Luminous Intensity, $I_F = 20mA$ | LI | 4.2 | 20 | 8.0 | 450 | mcd |
| Viewing Angle | Θ | 50 | 50 | 50 | 30 | deg |