



Illuminated Tactile

Specifications

Electrical Ratings	50mA @ 12VDC	Actuation Force	160 ± 50gF 260 ± 50gF
Electrical Life	1,000,000 cycles typical (160gF) 500,000 cycles typical (260gF)	Actuator Travel	.25 +.20mm / - .10mm
Mechanical Life	1,000,000 cycles typical	Dielectric Strength	500Vrms min between contacts
Contact Resistance	< 100mΩ initial	Insulation Resistance	≥ 100MΩ min @ 250VDC
		Operating Temperature	-20°C to 70°C
		Storage Temperature	-20°C to 70°C

Materials

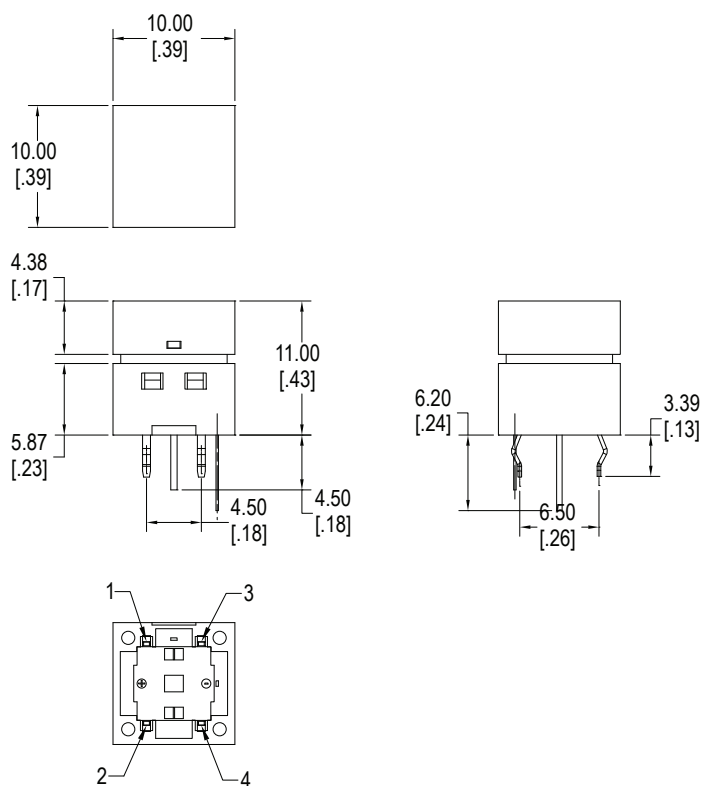
Lens	Polycarbonate (PC)
Actuator	Polybutylene Terephthalate (PBT)
Housing	Polybutylene Terephthalate (PBT)
Contacts	Silver Plated Copper Alloy
Terminals	Silver Plated Copper Alloy

Ordering Information

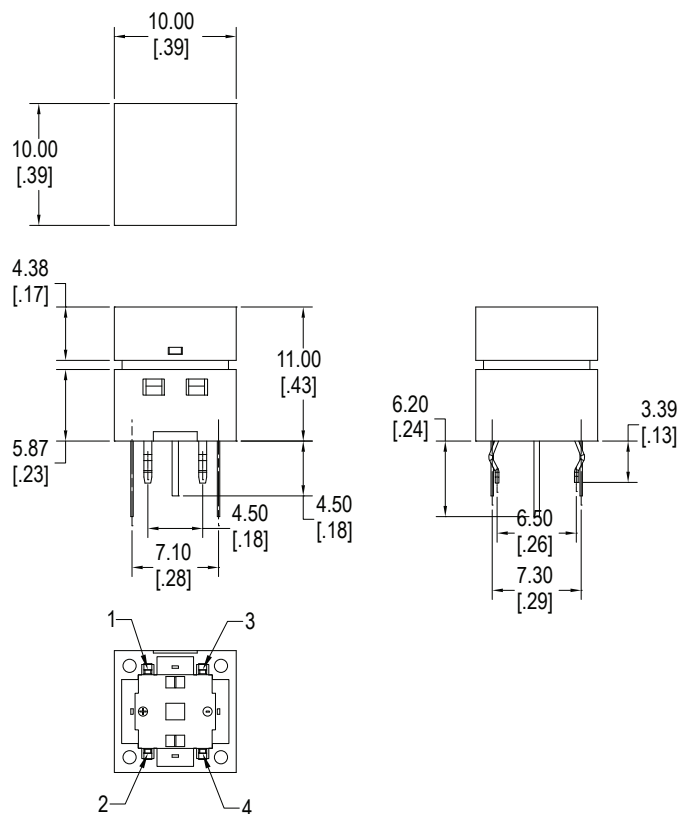
1. Series	JA	10	F160	S	1	0T	R	B
JA								
2. Actuator Size 10 = 10mm								
3. Actuation Force F160 = 160gF F260 = 260gF								
4. Actuator Style S = Square								
5. Diffuser Color 1 = White Semi-Transparent								
6. Lens Color 0T = Clear Transparent 6T = Orange Transparent 3T = Red Transparent 7T = Blue Transparent 5T = Green Transparent								
7. LED 1 Options X = No LED R = Red Y = Yellow G = Green B = Blue W = White								
8. LED 2 Options X = No LED R = Red Y = Yellow G = Green B = Blue W = White								

Dimensions

Single LED

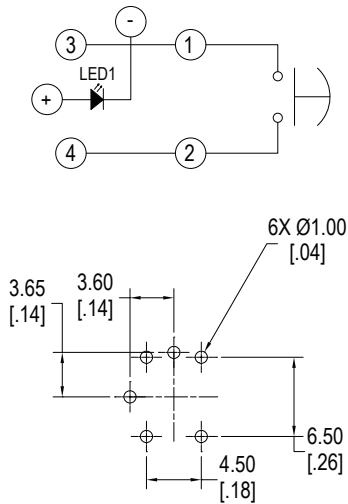


Dual LEDs

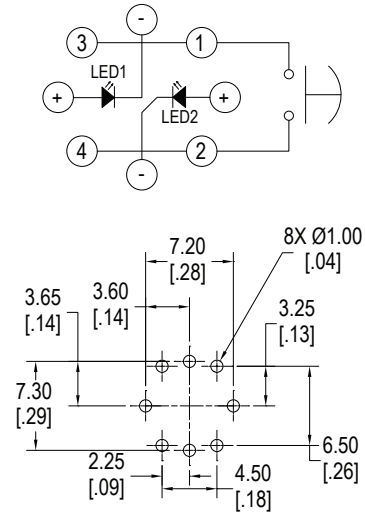


Schematics & PC Layout

Single LED



Dual LEDs



LED Characteristics

LED Ratings		Color					
		R	Y	G	B	W	Units
Reverse Voltage	V_R	5	5	5	5	5	V
Forward Current (avg)	I_F	30	30	30	30	30	mA
Forward Current (peak)	I_{FS}	125	125	125	125	125	mA
Reverse Current $V_R = 5V$	I_R	10	10	10	10	10	μA
Power Dissipation	P_T	111	75	111	108	111	mW
Operating & Storage Temperature	T_A	-40 ~ 85					$^{\circ}C$
Forward Voltage (typ) $I_F = 20mA$	V_F	2.0	2.0	3.3	3.1	3.2	V
Forward Voltage (max) $I_F = 20mA$	V_F	2.5	2.5	3.7	3.6	3.7	V
Wavelength at Peak Emission, $I_F = 20mA$	λ_P	635	595	525	460	n/a	nm
Spectral Line Half-Width, $I_F = 20mA$	$\Delta\lambda$	20	17	35	26	n/a	nm
Luminous Intensity, $I_F = 20mA$	LI	150	150	280	50	270	mcd
Viewing Angle	Θ	150	150	150	150	150	deg