

Illuminated Anti-Vandal Pushbutton – 19mm

Specifications

Electrical Ratings	20A @ 12VDC, resistive, 25K cycles 10A @ 24VDC, resistive, 100K cycles 15A @ 24VDC, resistive, 25K cycles 10A @ 125VAC, resistive, 25K cycles 5A @ 250VAC, resistive, 25K cycles	Actuation Force	550 ±50gF
Sealing Degree	IP67	Actuation Travel	2.5 ± .3mm
Electrical Life	50,000 cycles typical	Dielectric Strength	2000Vrms min contact to contact 2000Vrms min contact to LED
Contact Resistance	≤ 50mΩ initial	Insulation Resistance	≥ 100MΩ min
		Operating Temperature	-25°C to 70°C
		Storage Temperature	-25°C to 70°C

Materials

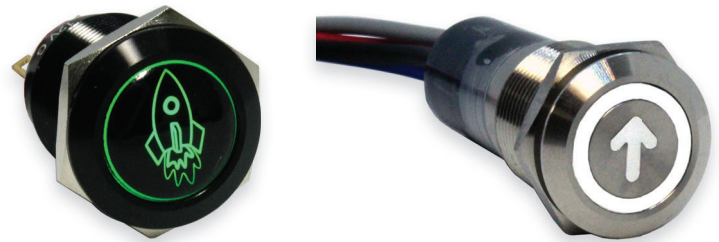
Actuator	Stainless Steel or Anodized Aluminum
LED Lens	Polycarbonate (PC)
Threaded Body	Stainless Steel or Anodized Aluminum
Terminal Support	Polybutylene Terephthalate (PBT)
Inner Switch Body	Polycarbonate (PC)
Contacts	Gold Plate over Silver
Terminals	Gold Plate over Nickel Plate over Copper Alloy
Hardware	One Hex Nut & One “O” Ring Supplied

Custom Capabilities Contact Factory

Cable Assemblies



Shine Through Symbols



Custom Laser Etching



Custom Plastic Convex Actuators

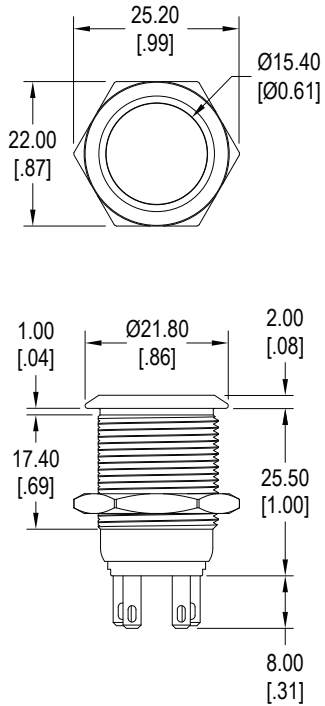


Ordering Information

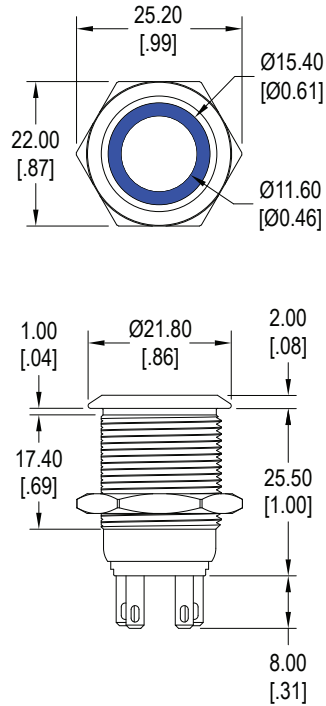
1. Series	AH	1	N	A	S	X
2. Number of Poles	1 = SPST NO +SPST NC					
3. Latching Option	N = Momentary L = Latching					
4. Actuator Style:	A = Flush actuator, non-illuminated B = Flush actuator, ring illuminated C = Flush actuator, dot illuminated G = Flush actuator, international standby symbol* <small>*contact factory for G, R, U or Y finish options</small> MR = Mushroom actuator, red anodized aluminum EC = Epoxy Convex actuator, contact factory for details					
5. Switch Finish	S = Stainless Steel (SUS 304) SM = Stainless Steel 316 (SUS 316L) B = Black Anodized Aluminum G = Green Anodized Aluminum R = Red Anodized Aluminum U = Blue Anodized Aluminum Y = Yellow Anodized Aluminum					
6. LED Color	X = No LED R = Red Y = Yellow G = Green B = Blue W = White O = Orange RO = Red / Orange dual LED RY = Red / Yellow dual LED RG = Red / Green dual LED RB = Red / Blue dual LED OY = Orange / Yellow dual LED OG = Orange / Green dual LED OB = Orange / Blue dual LED YG = Yellow / Green dual LED YB = Yellow / Blue dual LED GB = Green / blue dual LED * Contact Factory for other LED options					
7. LED Voltage	Blank = No LED 6 = 6VDC 12 = 12VDC 24 = 24VDC 110 = 110VAC 220 = 220VAC N = No internal resistor in series with the LED					
8. Terminal Option	Blank = .100" Quick Connect, standard T = Screw Terminals WA1 = Wire Assembly, SPST N.O. WA2 = Wire Assembly, SPDT					

Dimensions - Momentary Function

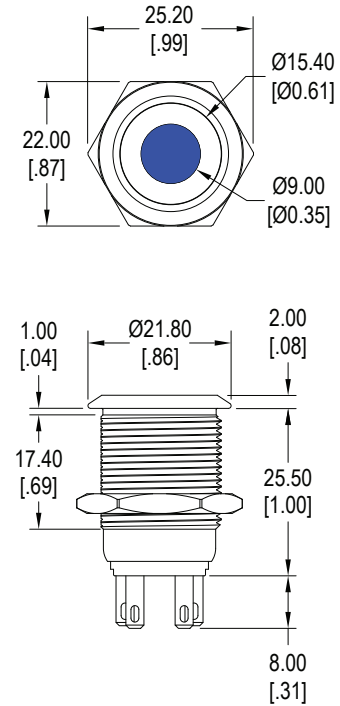
A Actuator



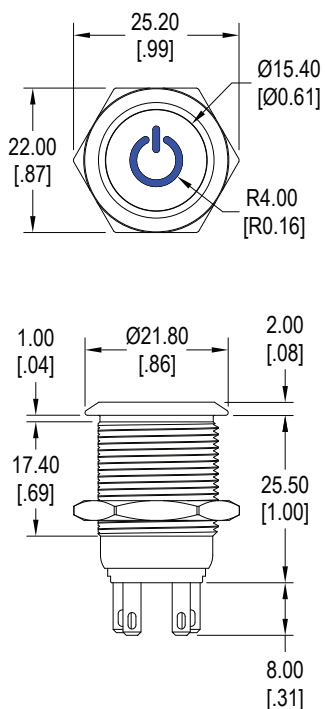
B Actuator



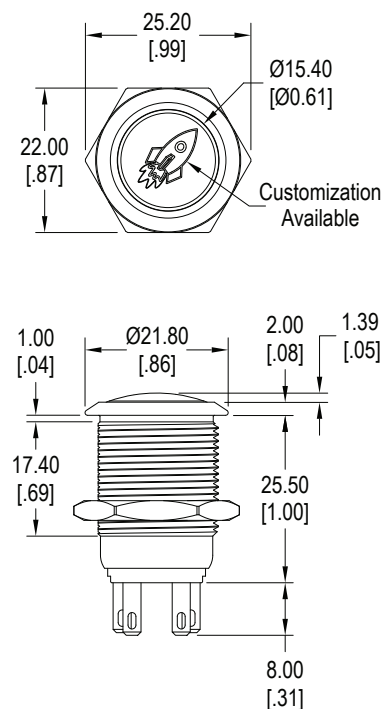
C Actuator



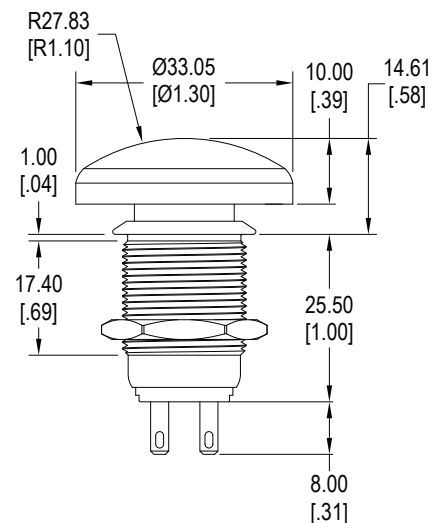
G Actuator



EC Actuator

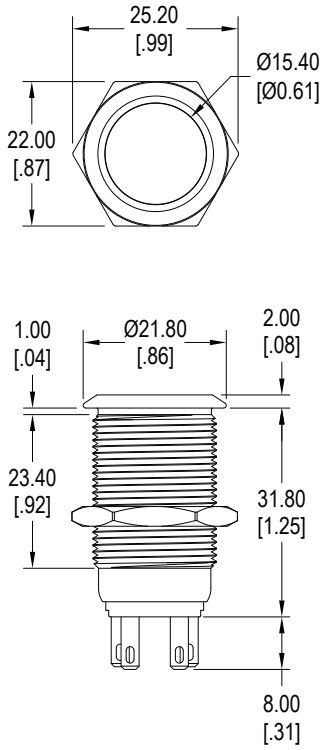


MR Actuator

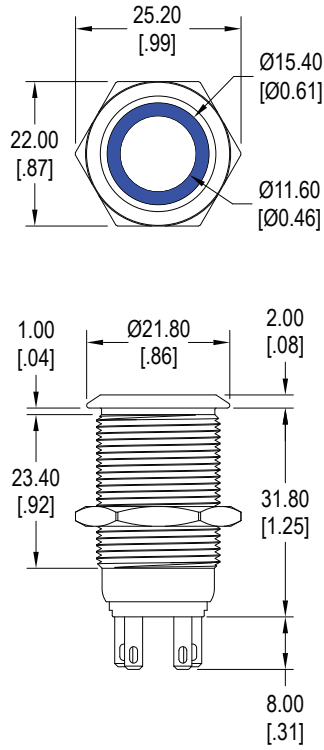


Dimensions - Latching Function

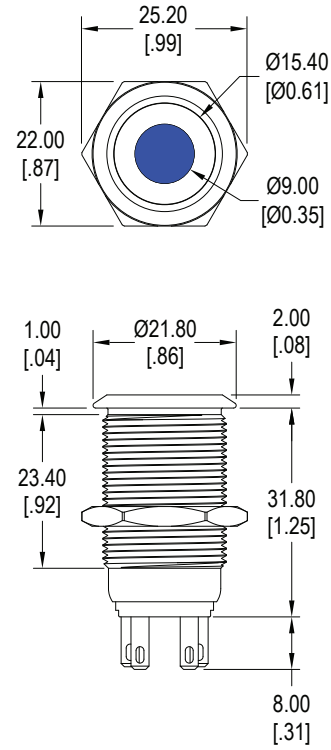
A Actuator



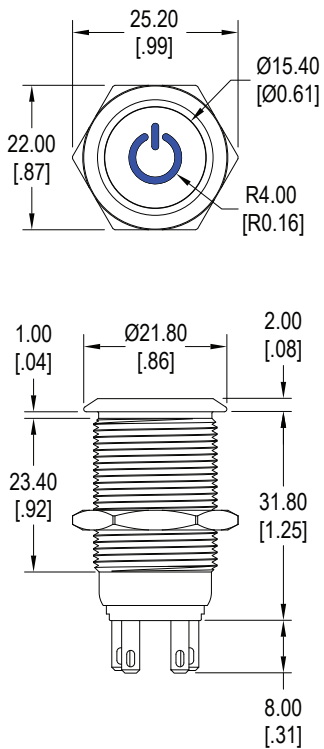
B Actuator



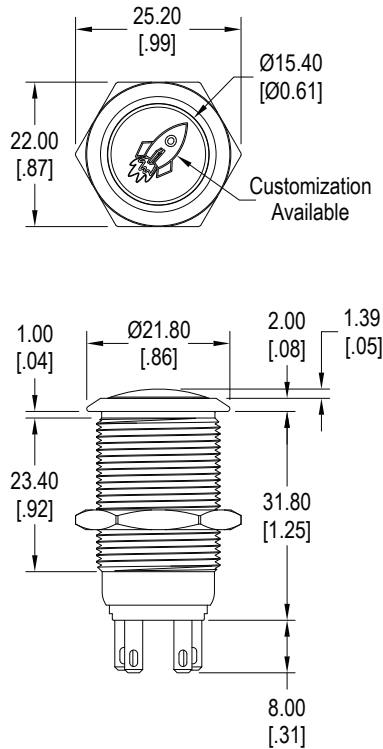
C Actuator



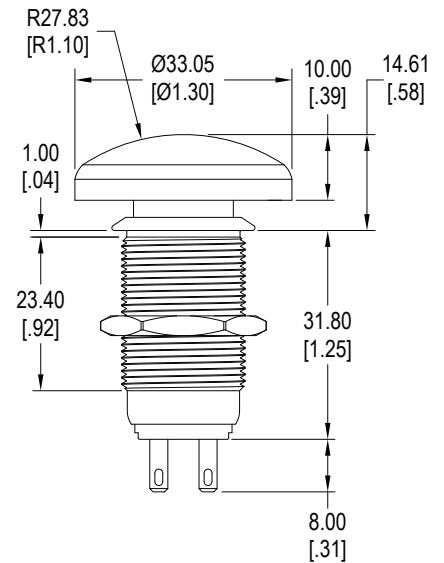
G Actuator



EC Actuator

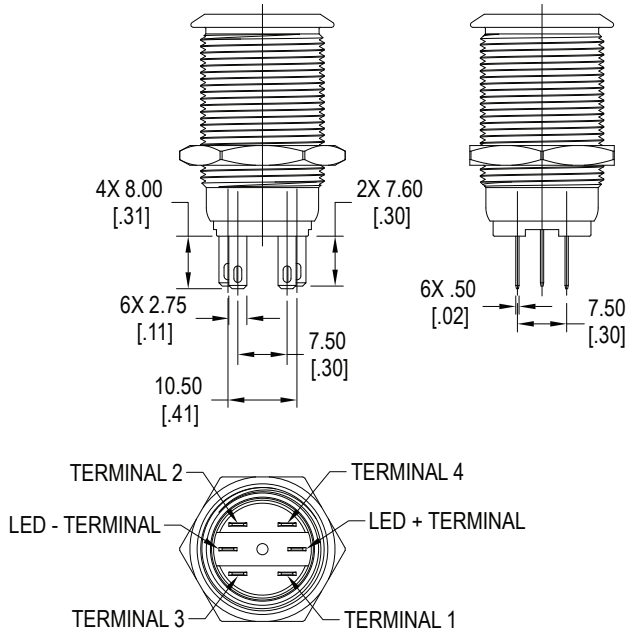


MR Actuator

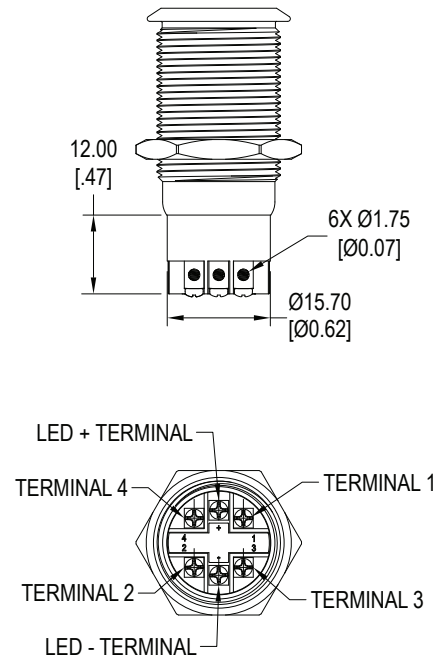


Termination

.100" Quick Connect, standard



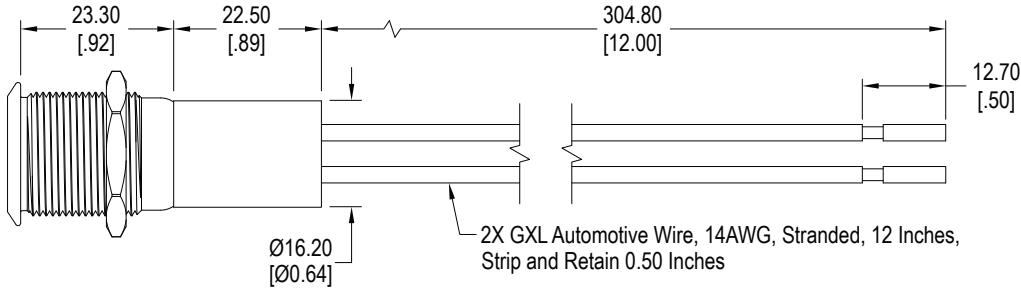
Screw Terminals



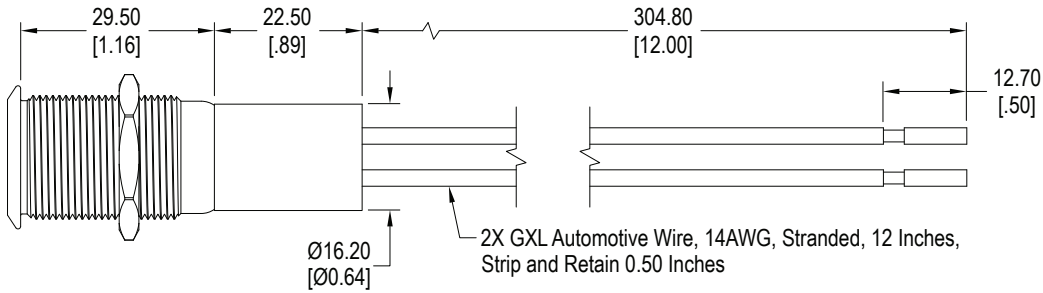
Termination

WA1, Wire Assembly, SPST N.O.

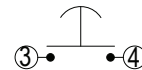
Momentary Function, Non-Illuminated



Latching Function, Non-Illuminated

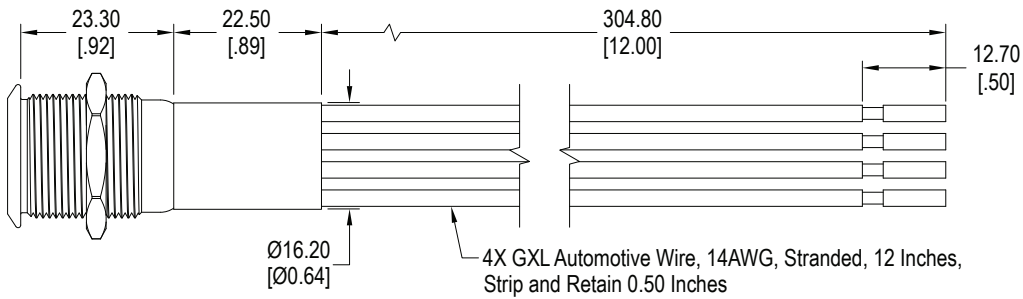


Wire Configuration	
Switch Terminal	Wire Color
Terminal 3	Black
Terminal 4	Black

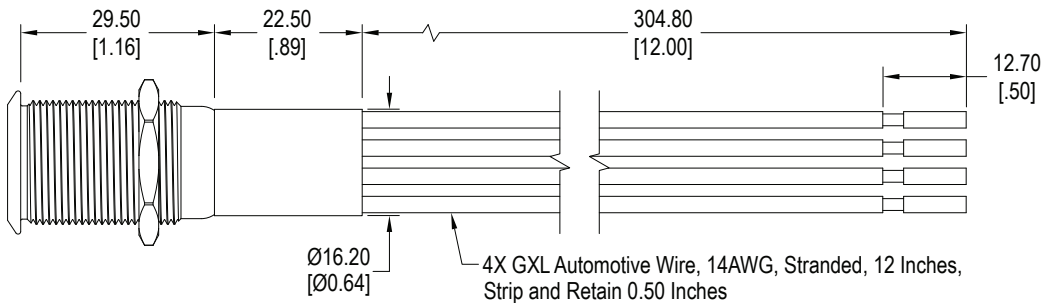


Termination

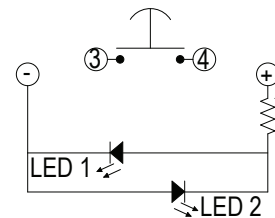
WA1, Wire Assembly, SPST N.O.
 Momentary Function, Illuminated



Latching Function, Illuminated



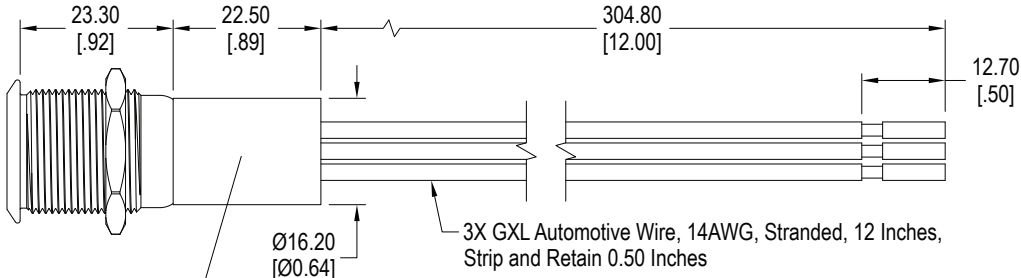
Wire Configuration	
Switch Terminal	Wire Color
LED + Terminal	Orange
LED - Terminal	Black
Terminal 3	Red
Terminal 4	Brown



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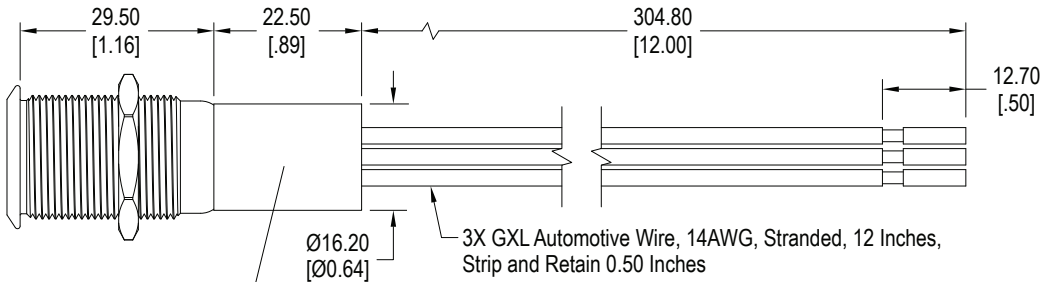
Termination

WA2, Wire Assembly, SPDT, Non-Illuminated
Momentary Function



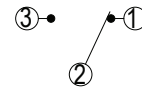
Jumper Wire, GXL Automotive Wire, 14AWG
Stranded, Connected to Terminal 2 & Terminal 4
Hidden inside epoxy shell

Latching Function



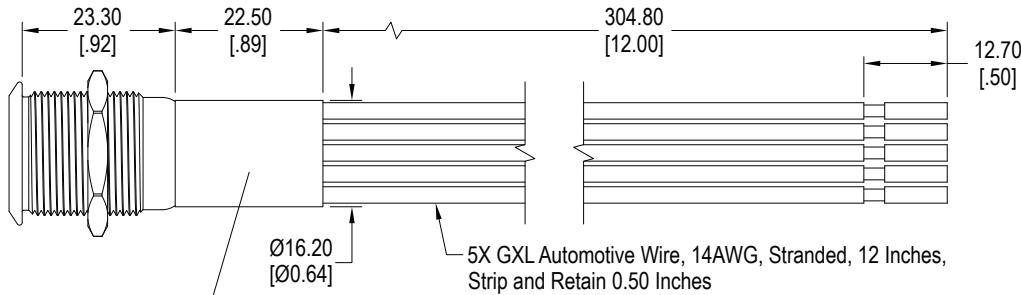
Jumper Wire, GXL Automotive Wire, 14AWG,
Stranded, Connected to Terminal 2 & Terminal 4
Hidden inside epoxy shell

Wire Configuration	
Switch Terminal	Wire Color
Terminal 1	White
Terminal 2	Blue
Terminal 3	Green



Termination

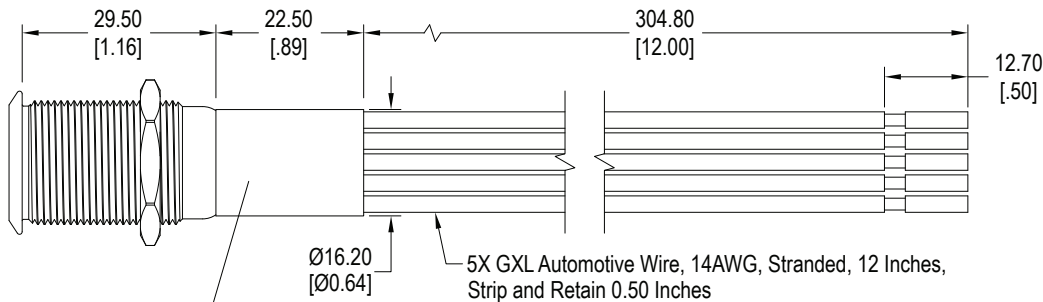
WA2, Wire Assembly, SPDT, Illuminated
Momentary Function



Jumper Wire, GXL Automotive Wire, 14AWG
Stranded, Connected to Terminal 2 & Terminal 4
Hidden inside epoxy shell

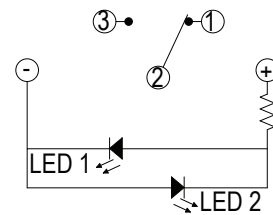


Latching Function



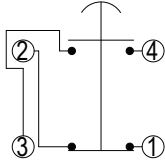
Jumper Wire, GXL Automotive Wire, 14AWG
Stranded, Connected to Terminal 2 & Terminal 4
Hidden inside epoxy shell

Wire Configuration	
Switch Terminal	Wire Color
LED + Terminal	Red
LED - Terminal	Black
Terminal 1	White
Terminal 2	Blue
Terminal 3	Green

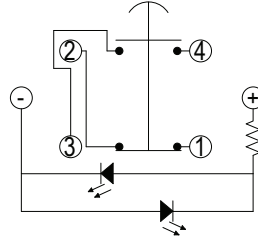


Schematics

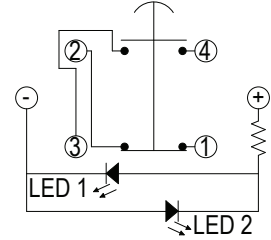
SPST NO + SPST NC, No LED



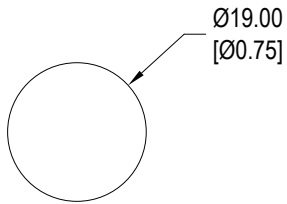
SPST NO + SPST NC, Single Color LED



SPST NO + SPST NC, Dual Color LED



Panel Cut-Out



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	μA
Power Dissipation	P_T	80	80	120	120	80	120	mW
Operating & Storage Temperature	T_A	-40 ~ +85						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 Emission $I_F = 20mA$	λ_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	Θ	145	145	145	145	145	145	deg