



RoHS Compliant

Illuminated Pushbutton - 12mm

Specifications*

Electrical Ratings	2A @ 48VDC
Sealing Degree	Momentary, IP67 Latching, IP60
Electrical Life	50,000 cycles average
Mechanical Life	100,000 cycles average
Contact Resistance	≤ 50mΩ initial

Actuation Force	250 ± 100gF
Dielectric Strength	1500Vrms min contact to contact 1500Vrms min contact to LED
Insulation Resistance	> 100MΩ min @ 500VDC
Operating Temperature	-25°C to 55°C
Storage Temperature	-25°C to 55°C

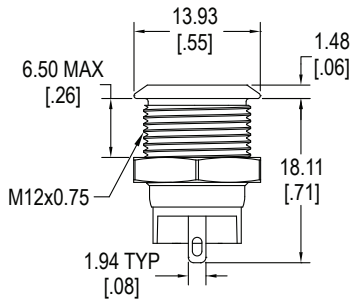
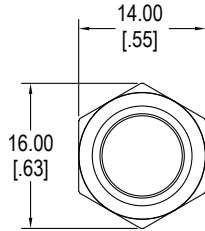
Materials

Actuator	Stainless Steel or Aluminum
LED Lens	Polycarbonate (PC)
Threaded Body	Stainless Steel or Aluminum
Terminal Support	Polybutylene Terephthalate (PBT)
Contacts	Silver Alloy
Terminals	Brass, Silver Plated
Hardware	One Hex Nut & One "O" Ring Supplied

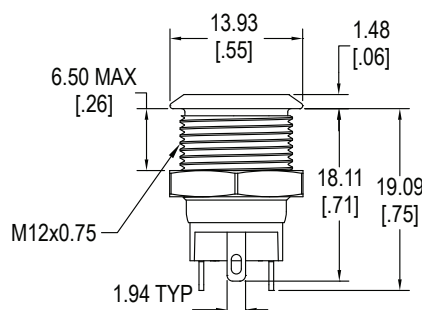
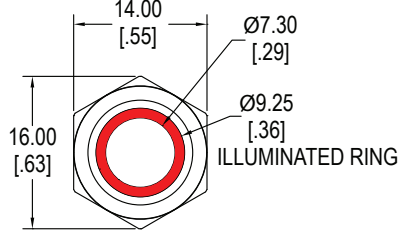
Ordering Information

1. Series	FH	N	B	B	B	G
FH						
2. Bezel Style	Blank = Standard Bezel					
3. Switch Function	N = Momentary L = Latching					
4. Actuator Style**:	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* *Contact factory for availability with latching function **Contact factory for other actuator options					
5. Switch Finish**	B = Black Anodized Aluminum G = Green Anodized Aluminum R = Red Anodized Aluminum S = Brushed Stainless Steel U = Blue Anodized Aluminum Y = Yellow Anodized Aluminum					
6. Terminal Options	B = Solder Lugs					
7. 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					
8. LED Voltage	Blank = No LED N = No internal resistor in series with the LED					

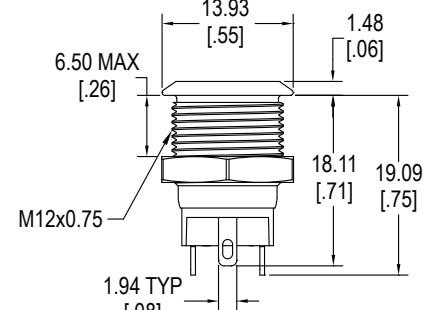
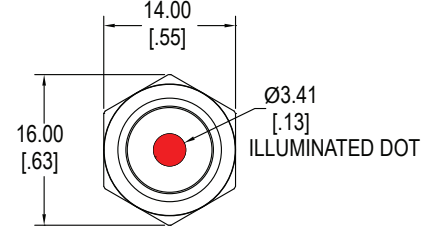
Dimensions - Momentary



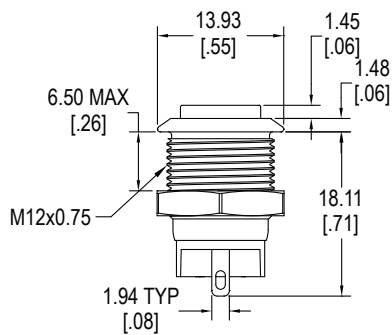
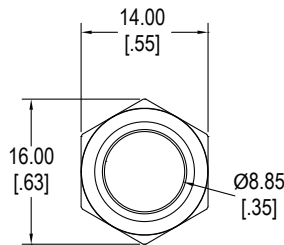
A



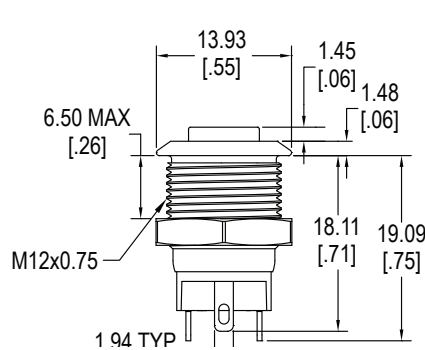
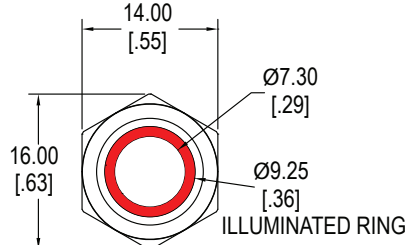
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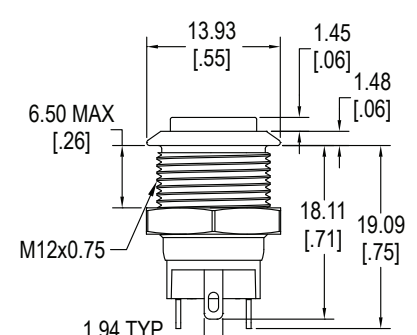
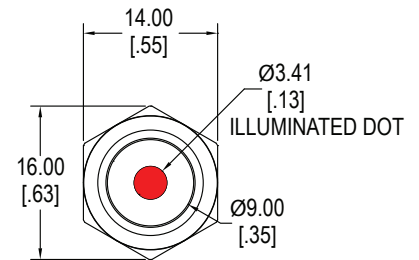
C



D

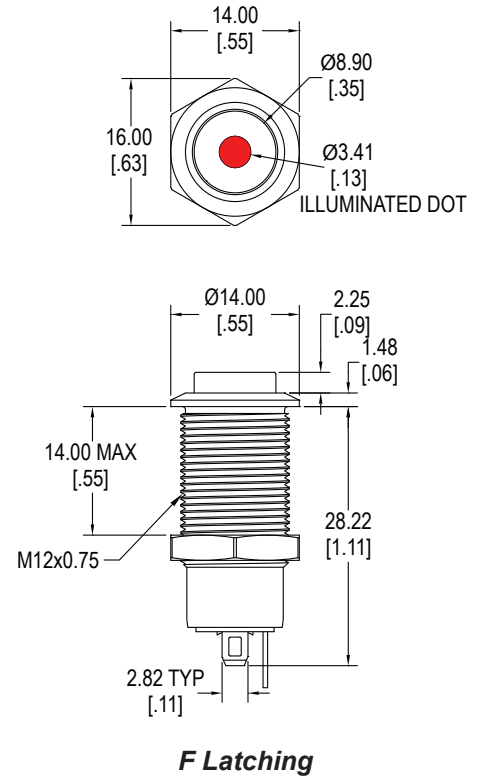
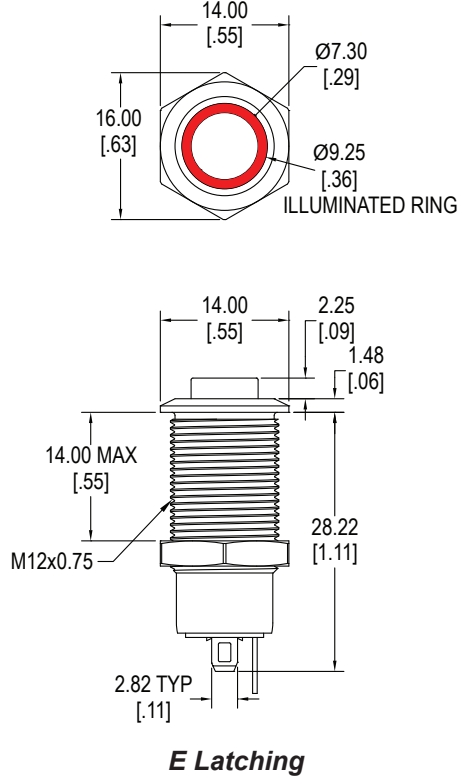
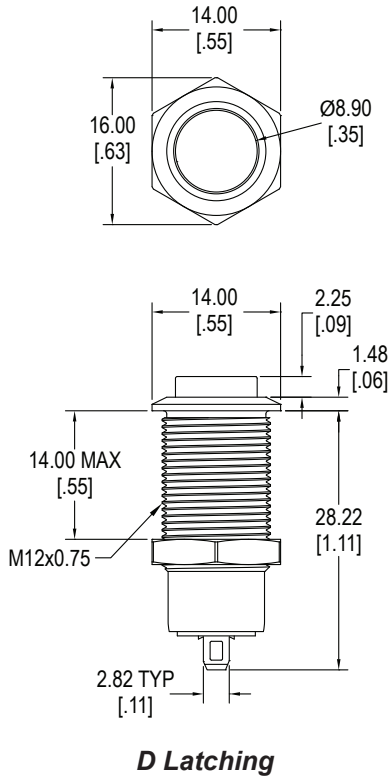


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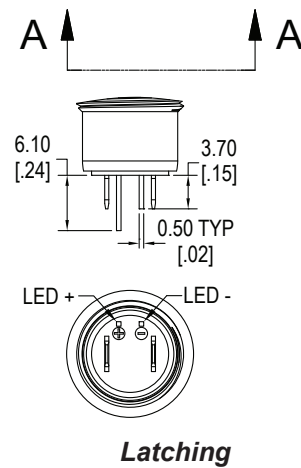
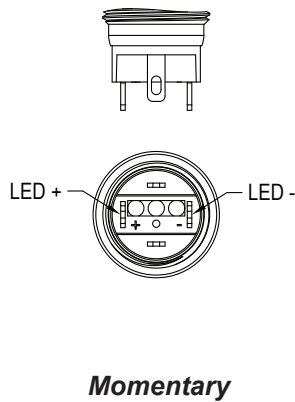


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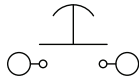
Dimensions - Latching



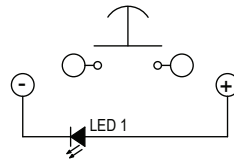
Bottom View



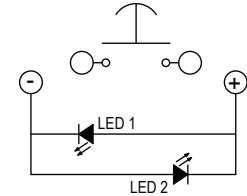
Schematics



No LED

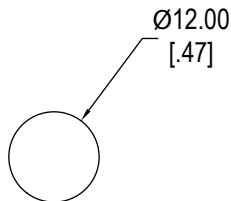


Single Color LED



Dual Color LED

Panel Cut-Out



LED Characteristics

LED Ratings		Color						
		R	Y	G	B	O	W	Units
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 Emmission $I_F = 20mA$	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