CIT Relay & Switch

FH

Illuminated Anti-Vandal 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

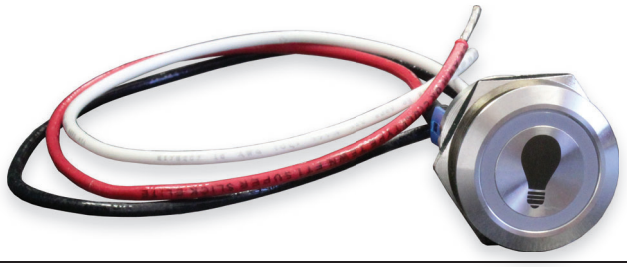
Actuation Force	250 ± 100gF
Dielectric Strength	1500Vrms min contact to contact 1500Vrms min contact to LED
Insulation Resistance	> 100MΩ min @ 500VDC
Operating Temperature	-25ºC to 55ºC
Storage Temperature	-25ºC to 55ºC

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, Sliver Plated
Hardware	One Hex Nut & One “O” Ring Supplied

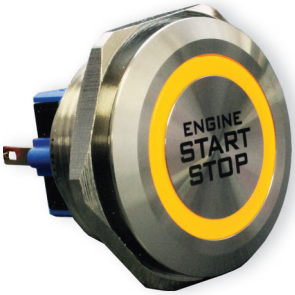
Custom Capabilities Contact Factory

Cable Assemblies



Shine Through Symbols

Custom Laser Etching



Custom Plastic Convex Actuators

Ordering Information

1. Series	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

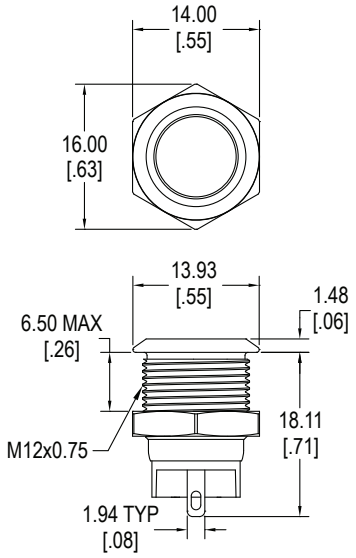
X = No LED	RO = Red / Orange dual LED
R = Red	RY = Red / Yellow dual LED
Y = Yellow	RG = Red / Green dual LED
G = Green	RB = Red / Blue dual LED
B = Blue	OY = Orange / Yellow dual LED
W = White	OG = Orange / Green dual LED
O = Orange	OB = Orange / Blue dual LED
	YG = Yellow / Green dual LED
	YB = Yellow / Blue dual LED
	GB = Green / Blue dual LED

8. LED Voltage
Blank = No LED
N = No internal resistor in series with the LED

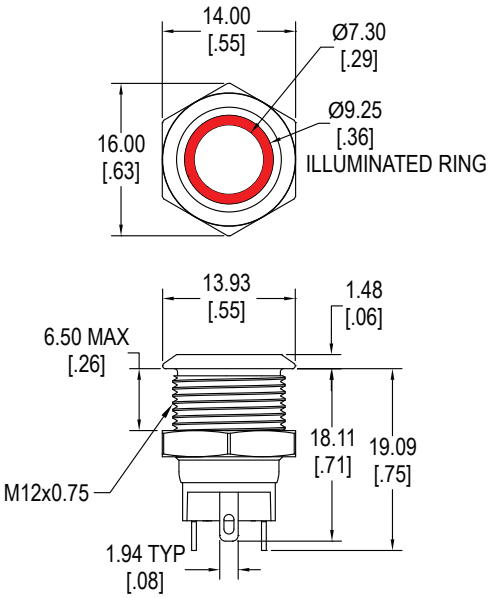
Dimensions

Momentary

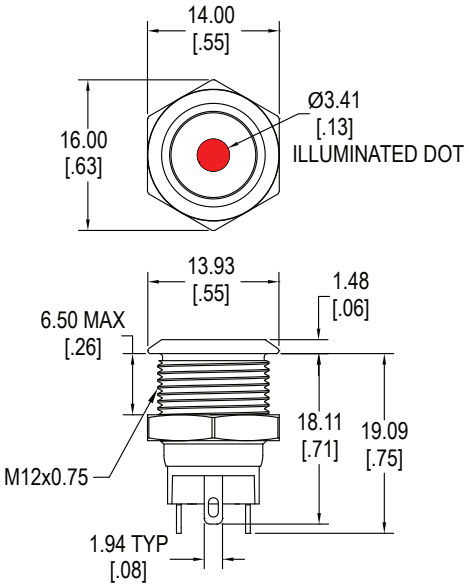
A Actuator



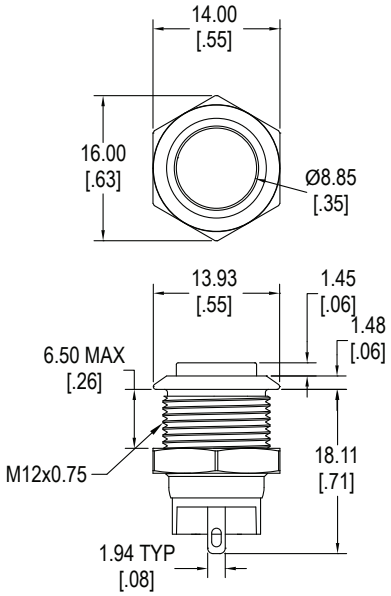
B Actuator



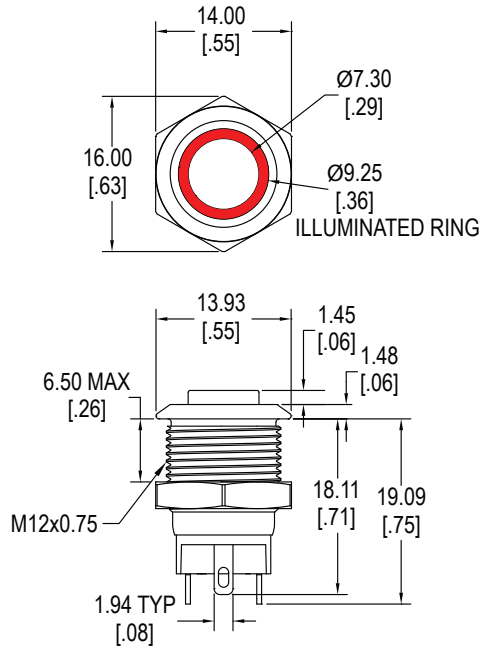
C Actuator



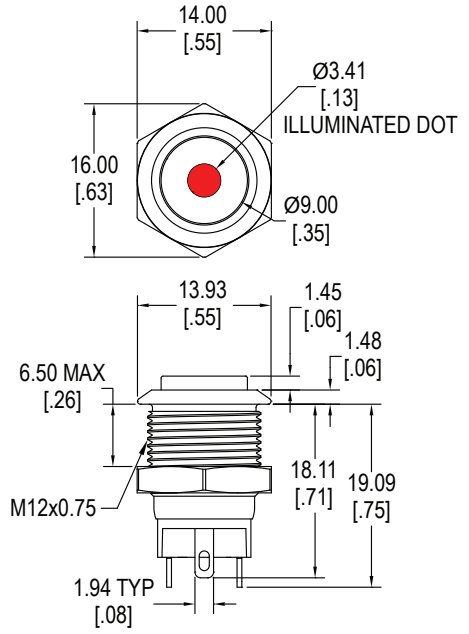
D Actuator



E Actuator



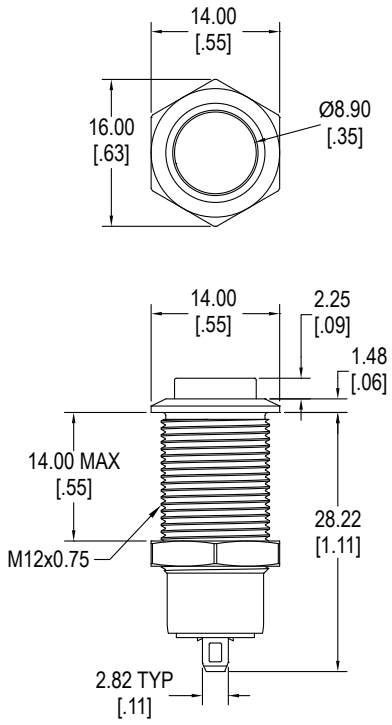
F Actuator



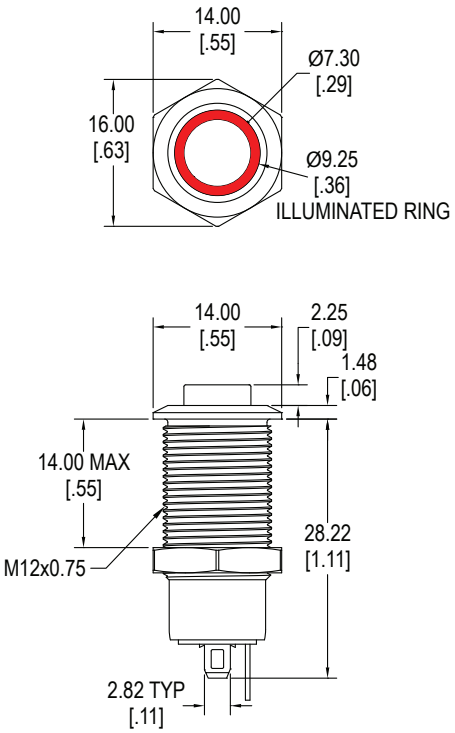
Dimensions - Latching

Latching

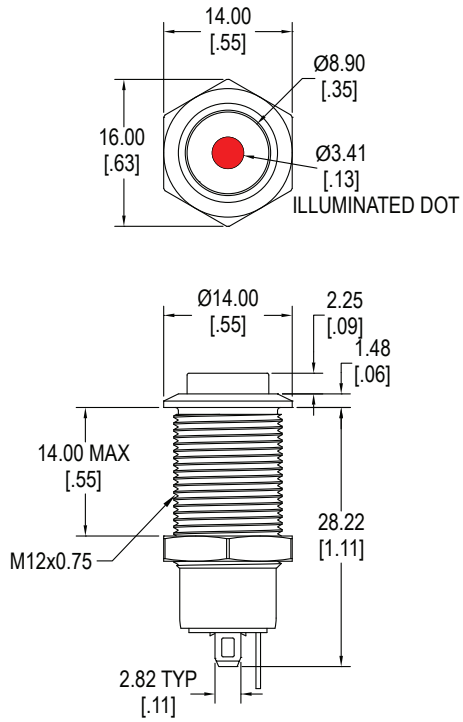
D Actuator



E Actuator

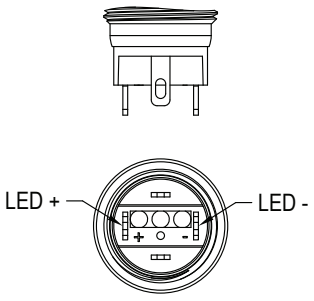


F Actuator

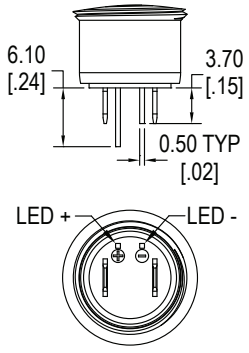


Bottom View

Momentary

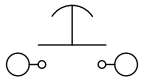


Latching

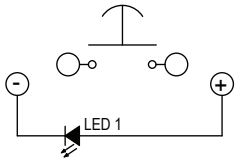


Schematics

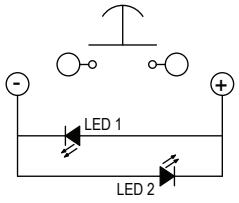
Non Illuminated



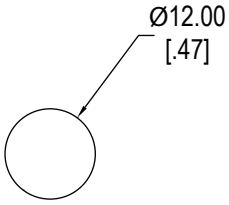
Single Color LED



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 Curent (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