



**PATENT  
PENDING**



**CIT**<sup>®</sup>  
Relay & Switch  
**SS1**

## Solid State Illuminated Pushbutton Anti-Vandal

<b>Specifications</b>	Momentary & Latching	Navigation
Operating Voltage Range	6VDC ~ 26.4VDC	6VDC ~ 28VDC
Nominal Load Current	24A (T <sub>A</sub> = 85°C)	5A per channel, 10A total (T <sub>A</sub> = 85°C)
Maximum Inrush Current	60A at (T <sub>A</sub> = 85°C)	52A at (T <sub>A</sub> = 85°C)
Short Circuit Protection	Output does not function. Reset by cycling through OFF position. (unless short circuit condition continues)	Output does not function. Reset by cycling through OFF position. (unless short circuit condition continues)
Over Temperature Protection	Output does not function Will reset when internal junction temperature returns to 150°C or below.	Output does not function Will reset when internal junction temperature returns to 150°C or below.
Reverse Polarity Protection	-80VDC	-80VDC
Actuator Travel	Travel to Make : 1.75±.5mm; Total Travel : 3.5±.5mm	
Actuation Force	500±100gF	
Electrical Endurance	1,000,000 cycles minimum	
Impact Resistance	IK08	
Shock Resistance	30G, 11ms	
Vibration Resistance	10G, 10-500Hz	
Operating Temperature	-25°C to 85°C (contact factory for higher values)	
Storage Temperature	-25°C to 85°C (contact factory for higher values)	
Sealing Degree	IP68	

## Materials

LED Lens	Polycarbonate (PC)
Threaded Body	Stainless Steel (SUS 316F)
Actuator	Stainless Steel (SUS 316F)
Wire	GXL Automotive Grade, (XLPE) insulation
Hardware	One Hex Nut & One "O" Ring supplied

## LED Characteristics

		Color				Units
		W	B	R	G	
Reverse Voltage	V <sub>R</sub>	5	5	5	5	V
Forward Current (avg)	I <sub>F</sub>	30	30	30	30	mA
Forward Current (peak)	I <sub>FS</sub>	100	100	150	100	mA
Reverse Current V <sub>R</sub> = 5V	I <sub>R</sub>	10	10	10	10	μA
Power Dissipation	P <sub>T</sub>	120	105	72	100	mW
Operating & Storage Temperature	T <sub>A</sub>	-40°C ~ 85°C				C°
Forward Voltage (typ) I <sub>F</sub> = 20mA	V <sub>F</sub>	2.8	3.3	2.0	3.3	V
Forward Voltage (max) I <sub>F</sub> = 20mA	V <sub>F</sub>	3.3	3.5	2.4	3.7	V
Wavelength at Peak Emission I <sub>F</sub> = 20mA	λ <sub>P</sub>	n/a	465	630	532	nm
Spectral Line Half-Width I <sub>F</sub> = 20mA	Δλ	n/a	25	15	35	nm
Luminous Intensity, I <sub>F</sub> = 20mA	LI	2900	400	350	1000	mcd
Viewing Angle	Θ	120	120	120	120	deg

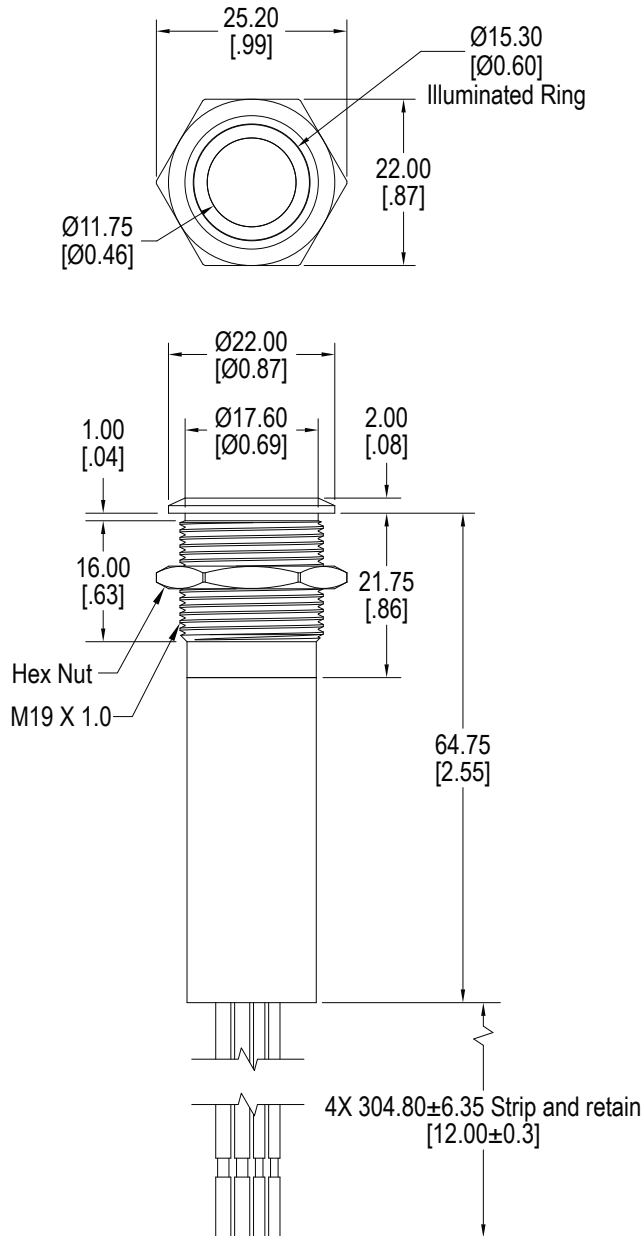


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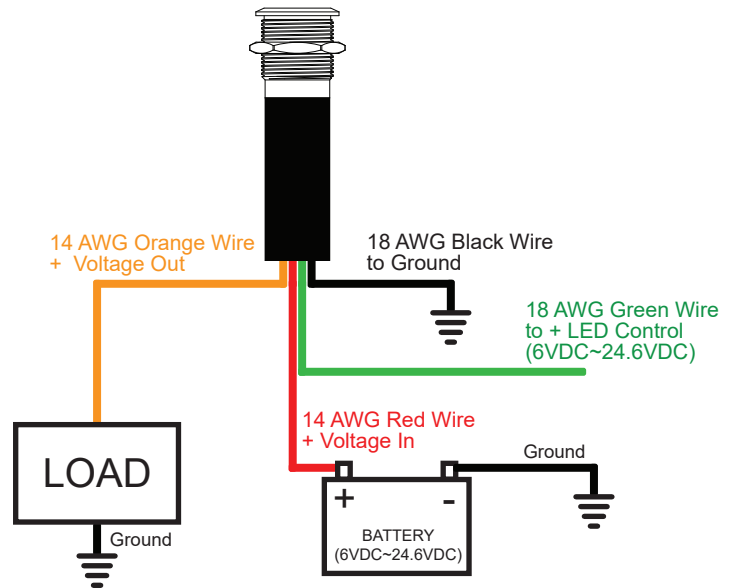
### Ordering Information

1. Series	SS1	19	C	B	S	N	W
SS1							
2. Housing Diameter 19 = 19mm							
3. Switch Function N = Momentary L = Latching C = Navigation First Press: Channel 1 ON & Channel 2 ON Second Press : Channel 1 ON & Channel 2 OFF Third Press : Channel 1 OFF & Channel 2 OFF							
4. Illumination B = Flush actuator, ring illuminated							
5. Switch Finish S = Brushed 316F Stainless Steel							
6. LED Color R = Red G = Green B = Blue W = White N = Navigation First Press : Red LED illuminates Second Press : Blue LED illuminates Third Press : OFF NA = Navigation Alternate First Press : Blue LED illuminates Second Press : Red LED illuminates Third Press : OFF Contact Factory for other LED options							
8. Wire Length W = 12", standard Contact Factory for other wire options							

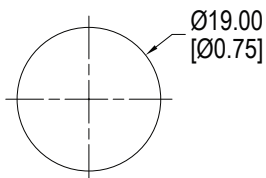
## Dimensions – Momentary Function



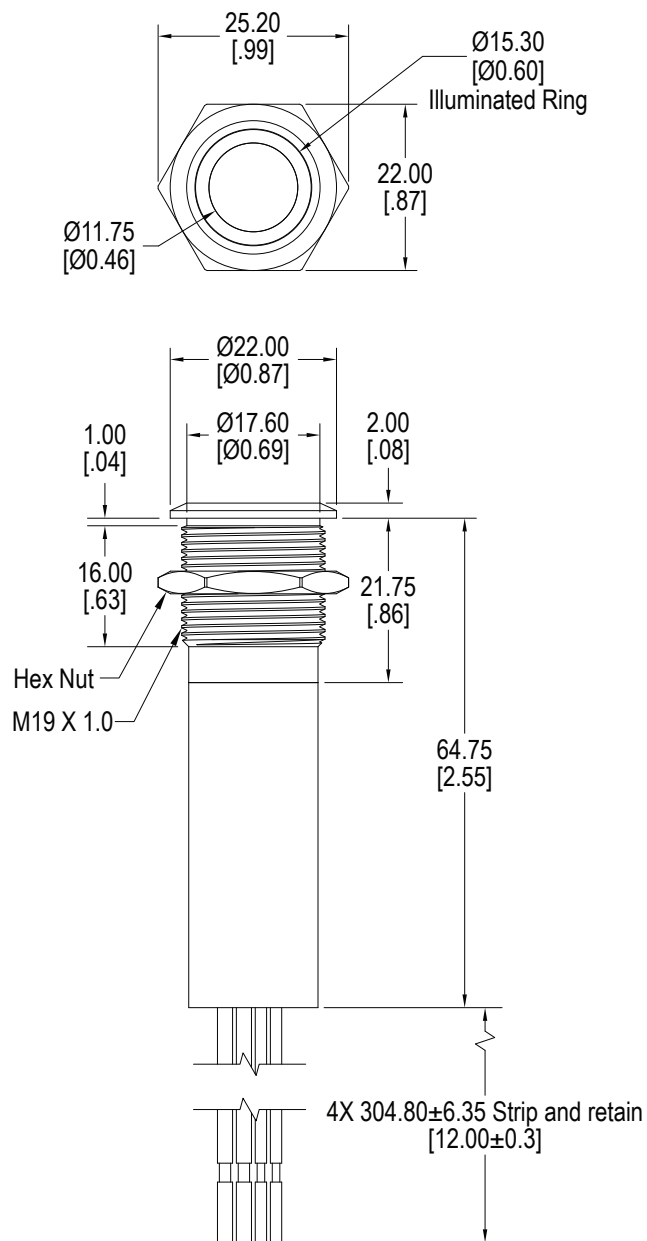
## Wire Designations



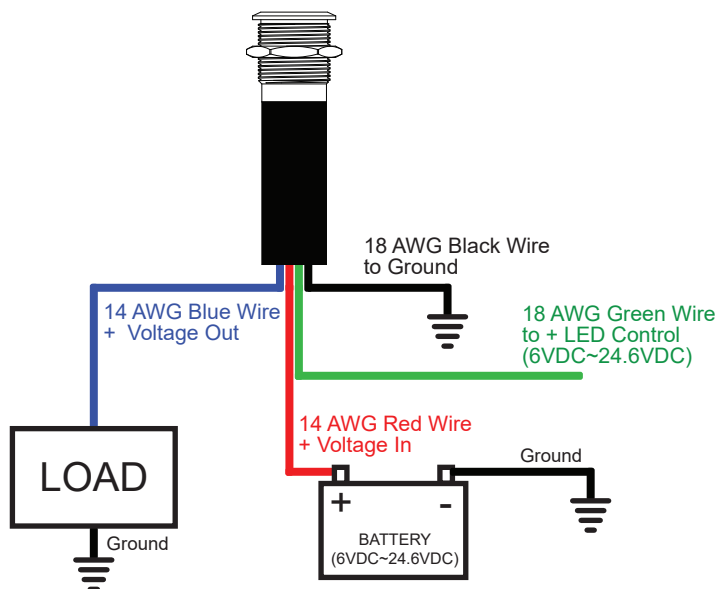
## Panel Cut-Out



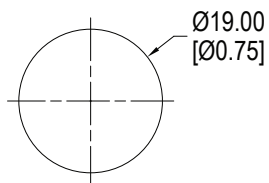
## Dimensions – Latching Function



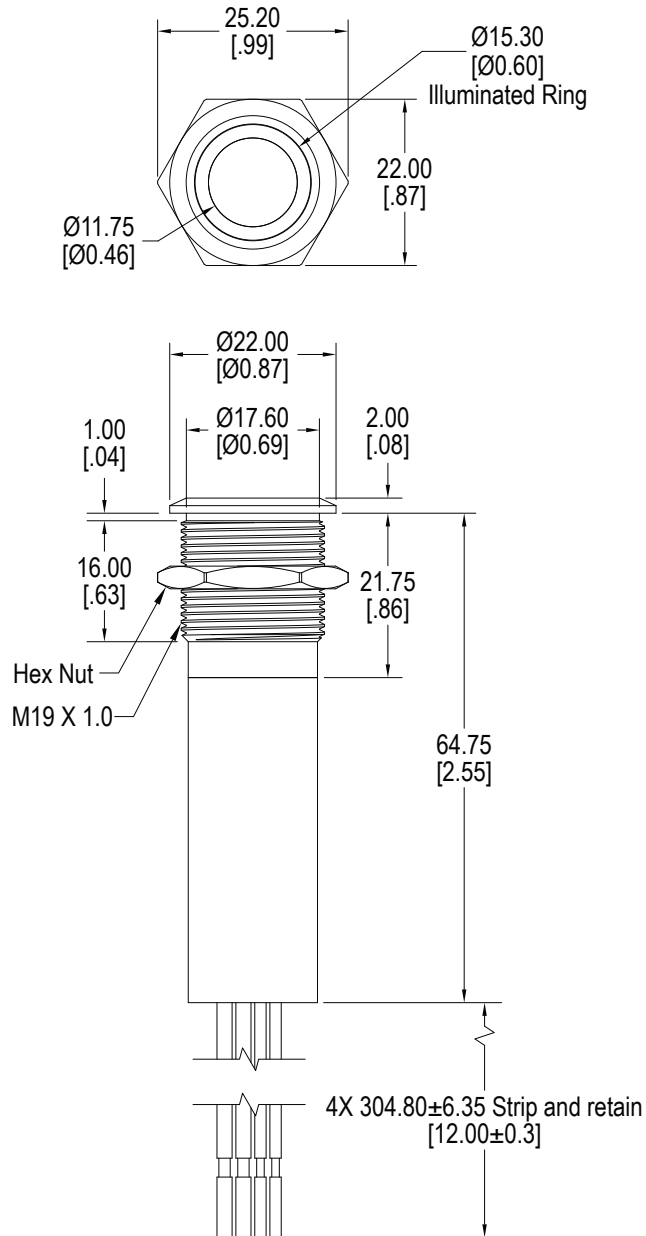
## Wire Designations



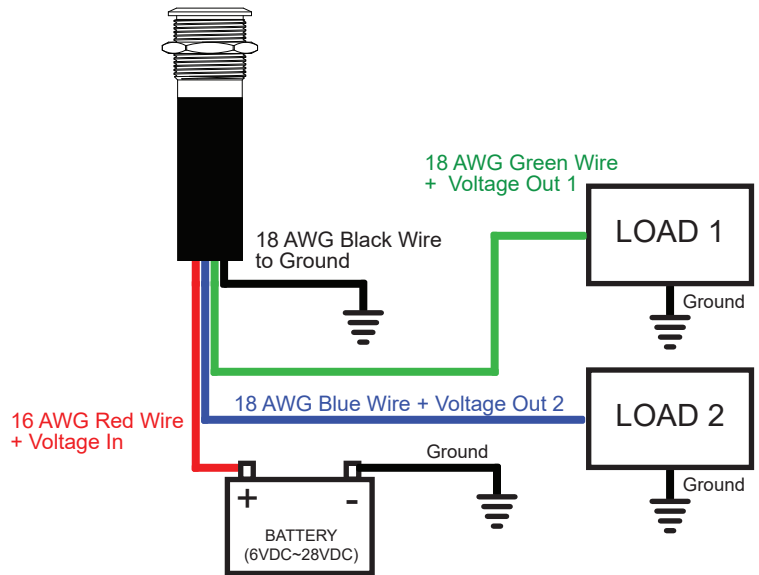
## Panel Cut-Out



## Dimensions – Navigation Function



## Wire Designations



## Panel Cut-Out

