

A photograph of several industrial connectors, likely from the KEYFLEX brand, resting on a dark, textured rock surface. The connectors are made of polished metal and feature a hexagonal front face with a central circular lens or port. One connector in the foreground is clearly visible, showing its threaded body and a blue plastic terminal block with two gold-colored pins. Other connectors are scattered in the background, some partially obscured by shadows. The background is a deep blue gradient.

KEYFLEX

# Vandal Resistant Switch

Vandal resistant Switch (sometimes referred to as vandal proof Switch or tamper-proof Switch) are electrical Switch designed to be installed in a location (or device) and application where they may be subject to vandalism or tampering, as in the case of pedestrian crossing Switch, or fraudulent or unauthorized use, as in the case of vending machine Switch.

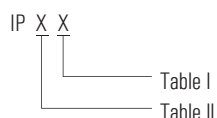
Vandal resistant Switch that are located on devices that are accessible to the public or which are located outside also have to be able to withstand dust, rain, snow, and frequent operation.

Pushbutton vandal-resistant Switch are frequently constructed of stainless steel or other durable metals and mounted into panels or housing boxes made out of strong materials, such as polycarbonate plastic, aluminium, or stainless steel. In some cases, the housing may be 1/4" thick, to protect both the switch and the housing from attempts by vandals to damage the switch or housing using blunt force. The housing for vandal proof Switch is often secured using security screws (which cannot be unscrewed with regular screw drivers). The height of buttons in the panel is often minimized by using flush-mounting, to make it more difficult to pry them out, a design technique used in ATM banking machines that are located outside. Some vandal-resistant Switch are protected against tampering using other approaches, such as hiding the Switch behind a locked or screwed-down door-covered panel, or by requiring a key or passcode before the switch will operate the device.



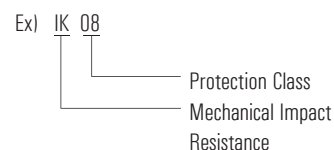
# Vandal Resistant Switch

Degree of protection to EN60529/DIN 0470



## IP Ratings Guide

The IP classification system designates the degree of protection provided by an enclosure against solid objects or water ingress. Table shows degrees of protection against solid objects. Table II shows degrees of protection against water.



**Table I (1st characteristic numeral)**  
Degree of Protection against solid objects

Digit	
0	Non-protected
1	Protected against a solid object greater than 50mm, such as a hand.
2	Protected against a solid object greater than 12.5mm, such as a finger.
3	Protected against a solid object greater than 2.5mm, such as wire or a tool.
4	Protected against a solid object greater than 1.0mm, such as wire or thin strips.
5	Dust-protected. Prevents ingress of dust sufficient to cause harm.
6	Dust tight. No ingress of dust.

**Table II (2nd characteristic numeral)**  
Degree of Protection against water

Digit	
0	Non-protected
1	Protected against dripping water.
2	Protected against dripping water when tilted up to 15°.
3	Protected against spraying water at an angle of up to 60°.
4	Protected against splashing water from any direction.
5	Protected against jets of water from any direction.
6	Protected against heavy seas or powerful jets of water. Prevents ingress sufficient to cause harm.
7	Protected against the effects of temporary immersion in water.
8	Protected against the effects of continuous immersion in water.

IK CODE	MECHANICAL IMPACT RESISTANCE
00	Unprotected
01	Impact = 0.15 joule
02	Impact = 0.20 joule
03	Impact = 0.35 joule
04	Impact = 0.50 joule
05	Impact = 0.70 joule
06	Impact = 1 joule
07	Impact = 2 joule
08	Impact = 5 joule
09	Impact = 10 joule
10	Impact = 20 joule





## Vandal Resistant Pilot Lamp $\Phi$ 8mm 12mm

Anti-Vandal IK09/ Sealed IP65

Variety Of Colors

Brass

### Order Code

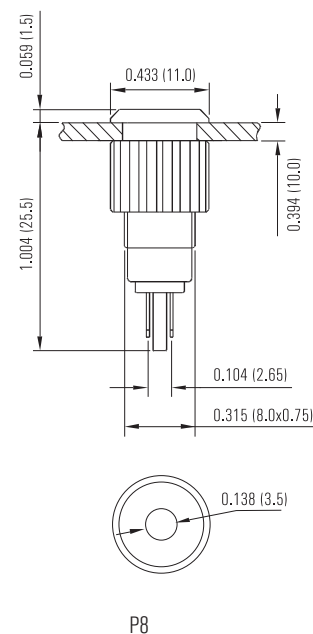
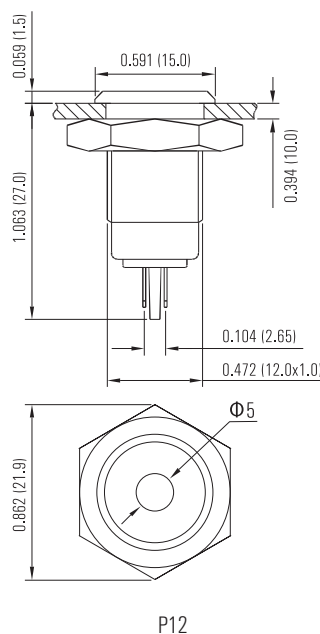
Series	Actuator Terminal	Material	Illuminated Options	Color	Color Voltage
<input type="checkbox"/> P8 (8mm) <input type="checkbox"/> P12 (12mm)	<input type="checkbox"/> P- Pin (1.8x0.4)	<input type="checkbox"/> N- Nickel plated brass	<input type="checkbox"/> D- Dot	<input type="checkbox"/> W- White <input type="checkbox"/> Y- Yellow <input type="checkbox"/> B- Blue <input type="checkbox"/> G- Green <input type="checkbox"/> R- Red <input type="checkbox"/> O- Orange	<input type="checkbox"/> 6V <input type="checkbox"/> 12V <input type="checkbox"/> 24V

### Technical Data

Type	P8	P12
Terminal	Pin(1.8X0.4mm)	
Dielectric Strength	1100VAC	
Operation Temp.	-20℃ ~ +55℃	
Torque	5-14Nm	
Protection	IK10	
Material		
Lampshade	PC	
Body	Nickel Plated Brass	
Base	PBT	
Type	Indicator	
Voltage	6V/ 12V/ 24V	
Color	<b>R G Y O B W</b>	
Life	Approx.40,000 hours	

Note:Additional voltage available upon request. Please consult your salesperson.

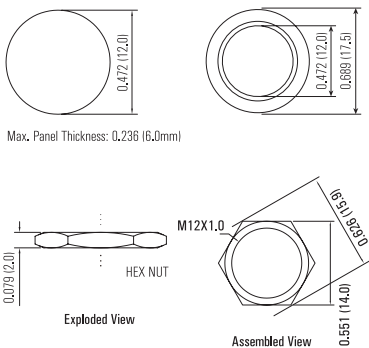
## Dimension



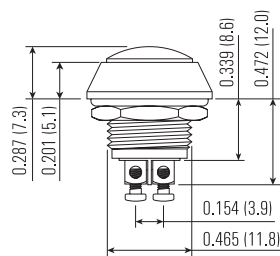
# Vandal Resistant Switch $\phi 12\text{mm}$



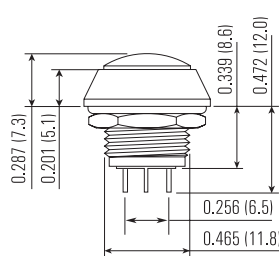
## Suggested Panel Cutout



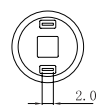
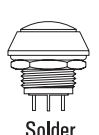
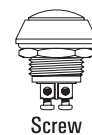
## Dimension



V12-B, V12-F



V12-B/P, V12-F/P



## Anti-Vandal IK09/ Sealed IP65

## Square And Round Version Available

## 1,000,000 Cycles Momentary

## Variety Of Colors

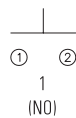
Momentary: Means that when you push Switch and then move your finger, the actuator will back to the original position.

## Order Code

Series	Actuator Options	Terminal	Function	Body Material	Actuator Color
V12	B- Round F- Square	P- Pin (2.0x0.5) Screw no letter	Momentary no letter 1- NO	S- Stainless Steel N- Nickel plated brass A- Zn- Al Alloy Black	BK- Black W- White Y- Yellow B- Blue G- Green R- Red

1) The Actuator color only Zn-Al alloy material available

## Function



## Technical Data

Type	V12-B/S	V12-B/N	V12-B/A	V12-F/A
Illuminated Options	Non-illuminated			
Front Shape	Round			Square
Terminal	Screw/ Pin (2.0X0.5)			
Max. Switch Rating	2A 48VDC			
Contact Resistance	$\leq 50\text{m}\Omega$			
Insulation Resistance	$\geq 1000\text{m}\Omega$			
Dielectric Strength	2000VAC			
Operation Temp.	$-20^{\circ}\text{C} \sim +55^{\circ}\text{C}$			
Mechanical Life	1,000,000 Cycles			
Electrical Life	200,000 Cycles			
Contact Material	Silver Alloy			
Torque	5 ~ 14Nm			
Operation Pressure	5N			
Protection	IP65/ IK08			
Material	Stainless Steel/ Brass/ PBT			
Actuator	Stainless Steel/ Brass/ PBT			
Body	Stainless Steel/ Brass/ Zn-Al Alloy			
Base	PBT			
Color	R G Y O B W BK			
Actuator(Zn-Al.alloy)				



## Vandal Resistant Switch $\Phi 16\text{mm}$

Anti-Vandal IK09/ Sealed IP65

Normal Open

Domed/ Flat/ High Flat

Stainless Steel/ Brass

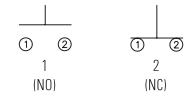
1,000,000 Cycles Momentary

Momentary: Means that when you push Switch and then move your finger, the actuator will back to the original position

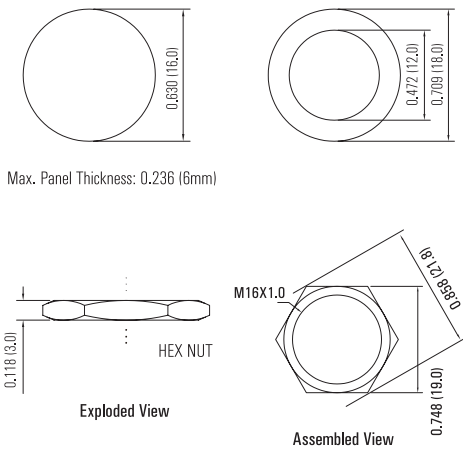
### Order Code

Series	Actuator Options	Terminal	Function	Material Finish	Marking Options
V16	F - Flat H - High B - Domed	P - Pin(2.8X0.5) Screw blank	Momentary: 1- NO 2- NC	G- *Gold N- Nickel A- *Anodized aluminum S- Stainless Steel N- Natural color P- Polished Brushed blank	Custom Markings Available

### Function



### Suggested Panel Cutout



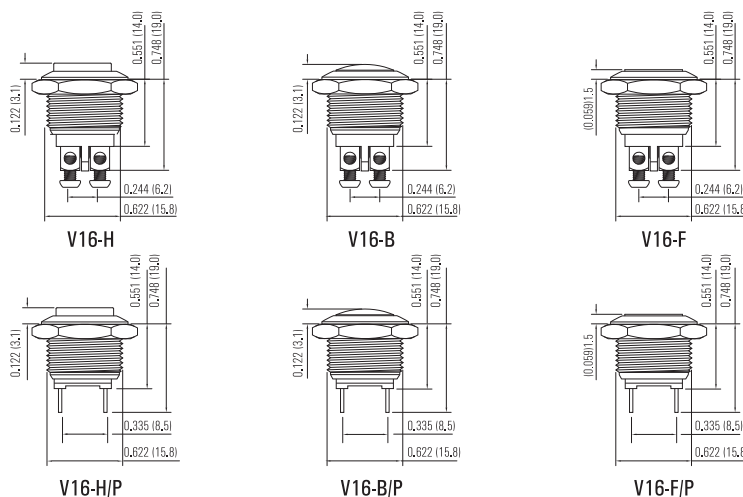
Max. Panel Thickness: 0.236 (6mm)

### Technical Data

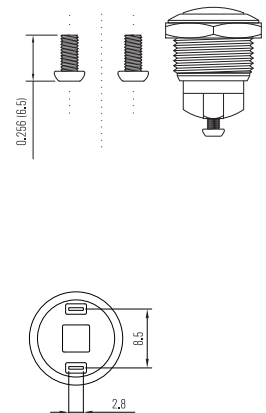
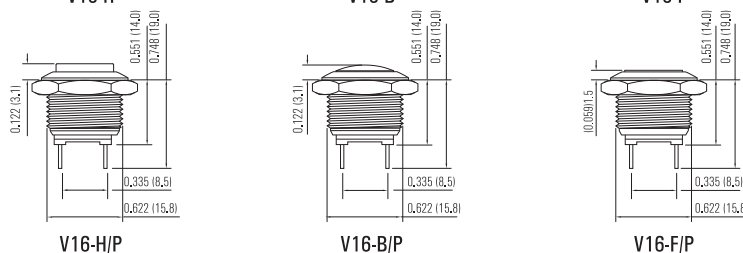
Type	V16-F	V16-B	V16-H
Actuator Options	Flat	Domed	High Flat
Terminal	Screw/ Pin (2.8X0.5)		
Max.Switch Rating	2A 48VDC		
Contact Resistance	$\leq 50\text{m}\Omega$		
Insulation Resistance	$\geq 1000\text{m}\Omega$		
Dielectric Strength	2000VAC		
Operation Temp	$-20^{\circ}\text{C} \sim +55^{\circ}\text{C}$		
Mechanical Life	1,000,000 Cycles		
Electrical Life	200,000 Cycles		
Contact Material	Silver Alloy		
Torque	5 ~ 14Nm		
Operation Pressure	$\approx 4\text{N}$		
Protection	IP65/ IK08		
Material			
Actuator	Stainless Steel/ *Gold Plated Brass/ *Anodized Aluminum		
Body	Stainless Steel/ Nickel Plated Brass/ *Gold Plated Brass Anodized Aluminum		
Base	PBT		

### Dimension

Screw



Solder



# Vandal Resistant Switch $\phi 19\text{mm}$



**Anti-Vandal IK09/ Sealed IP65**

**Normal Open/ Normal Closed**

**Domed/ Flat/ High Flat**

**Stainless Steel/ Brass**

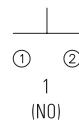
**1,000,000 Cycles Momentary**

Momentary: Means that when you push Switch and then move your finger, the actuator will back to the original position.

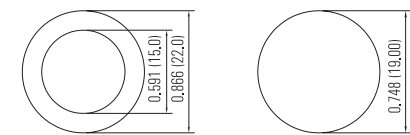
## Order Code

Series	Actuator Options	Terminal	Function	Material Finish	Marking Options
V19	F- Flat H- High B- Domed	P- Pin(2.8x0.5) Screw blank	Momentary: 1- NO	G- *Gold N- Nickel A- *Anodized aluminum S- Stainless Steel N- Natural color P- Polished Brushed blank	Custom Markings Available

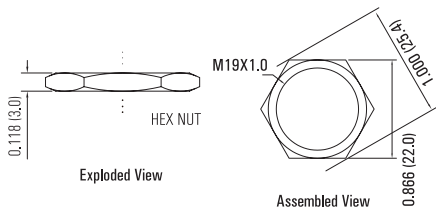
## Function



## Suggested Panel Cutout



Max. Panel Thickness: 0.394 (10mm)

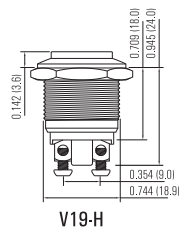


## Technical Data

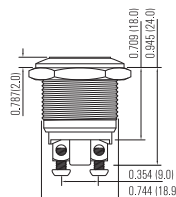
Type	V19-F	V19-B	V19-H
Front Shape	Flat	Domed	High Flat
Terminal	Screw/ Pin (2.8X0.5)		
Max.Switch Rating	2A 48VDC		
Contact Resistance	$\leq 50\text{m}\Omega$		
Insulation Resistance	$\geq 1000\text{m}\Omega$		
Dielectric Strength	2000VAC		
Operation Temp	$-20^{\circ}\text{C} \sim +55^{\circ}\text{C}$		
Mechanical Life	1,000,000 Cycles		
Electrical Life	200,000 Cycles		
Contact Material	Silver Alloy		
Torque	5 ~ 14Nm		
Operation Pressure	$\approx 4\text{N}$		
Protection	IP65/ IK09		
Material			
Actuator	Stainless Steel/ *Gold Plated Brass/ *Anodized Aluminum		
Body	Stainless Steel/ Nickel Plated Brass/ *Gold Plated Brass /*Anodized Aluminum		
Base	PBT		

## Dimension

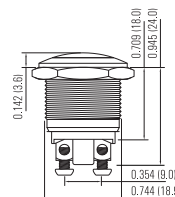
Screw



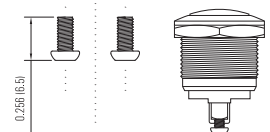
V19-H



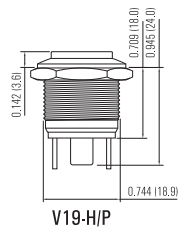
V19-F



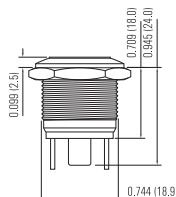
V19-B



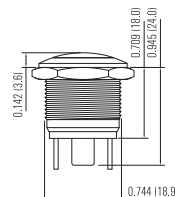
Solder



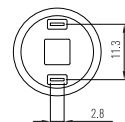
V19-H/P



V19-F/P



V19-B/P





## Vandal Resistant Switch $\Phi 19\text{mm}$ (Short)

Anti-Vandal IK09/ Sealed IP65

Normal Open/ Normal Closed

Domed/ Flat/ High Flat

Stainless Steel/ Brass

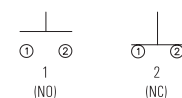
1,000,000 Cycles Momentary

Momentary: Means that when you push Switch and then move your finger, the actuator will back to the original position.

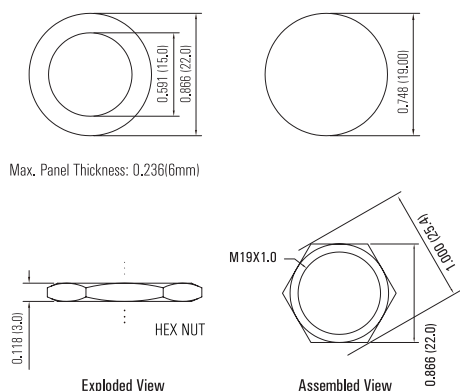
### Order Code

Series	Actuator Options	Terminal	Function	Material Finish	Marking Options
Vs19	F - Flat H - High B - Domed	P - Pin(2.8x0.5) Screw blank	Momentary: 1- NO 2- NC	G- *Gold N- Nickel A- *Anodized aluminum S- Stainless Steel N- Natural color P- Polished Brushed blank	Custom Markings Available

### Function



### Suggested Panel Cutout



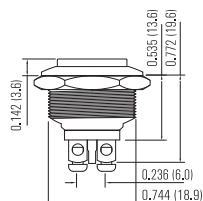
Max. Panel Thickness: 0.236(6mm)

### Technical Data

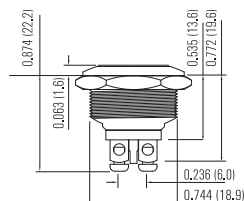
Type	Vs19-F	Vs19-B	Vs19-H
Actuator Options	Flat	Domed	High Flat
Terminal	Screw/ Pin (2.8X0.5)		
Max.Switch Rating	2A 48VDC		
Contact Resistance	$\leq 50\text{m}\Omega$		
Insulation Resistance	$\geq 1000\text{m}\Omega$		
Dielectric Strength	2000VAC		
Operation Temp	$-20^{\circ}\text{C} \sim +55^{\circ}\text{C}$		
Mechanical Life	1,000,000 Cycles		
Electrical Life	200,000 Cycles		
Contact Material	Silver Alloy		
Torque	5 ~ 14Nm		
Operation Pressure	5N		
Protection	IP65/ IK09		
Material			
Actuator	Stainless Steel/ *Gold Plated Brass		
Body	Stainless Steel/ Nickel Plated Brass/ *Gold Plated Brass		
Base	PBT		

### Dimension

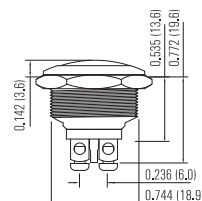
#### Screw



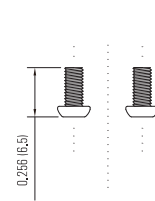
Vs19-H



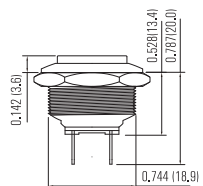
Vs19-F



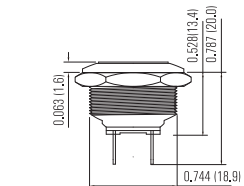
Vs19-B



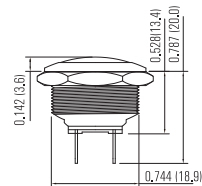
#### Solder



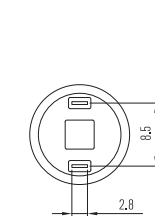
Vs19-H-P



Vs19-F-P



Vs19-B-P





# Vandal Resistant Switch $\Phi 22\text{mm}$



**Anti-Vandal IK09/ Sealed IP65**

**Normal Open/ Normal Closed**

**Domed/ Flat/ High Flat**

**Stainless Steel**

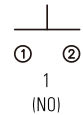
**1,000,000 Cycles Momentary**

Momentary: Means that when you push Switch and then move your finger, the actuator will back to the original position.

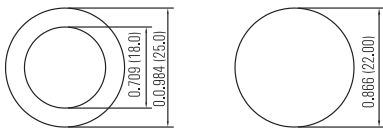
## Order Code

Series	Actuator Options	Terminal	Function	Material Finish	Marking Options
V22	F- Flat H- High B- Domed	P- Pin(2.8x0.5) Screw blank	Momentary: 1- NO 2- NC	S- Stainless Steel	Custom Markings Available

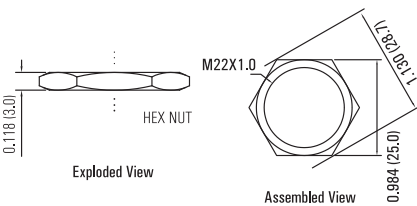
## Function



## Suggested Panel Cutout



Max. Panel Thickness: 0.315 (8mm)

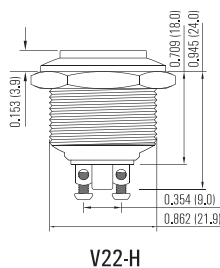


## Technical Data

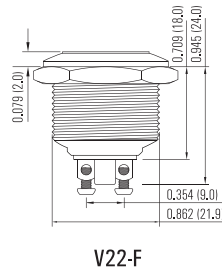
Type	V22-F	V22-B	V22-H
Front Shape	Flat	Domed	High Flat
Terminal	Screw/ Pin (2.8X0.5)		
Max.Switch Rating	2A 48VDC		
Contact Resistance	$\leq 50\text{m}\Omega$		
Insulation Resistance	$\geq 1000\text{m}\Omega$		
Dielectric Strength	2000VAC		
Operation Temp	$-20^{\circ}\text{C} \sim +55^{\circ}\text{C}$		
Mechanical Life	1,000,000 Cycles		
Electrical Life	200,000 Cycles		
Contact Material	Silver Alloy		
Torque	5 ~ 14Nm		
Operation Pressure	5.5N		
Protection	IP65/ IK09		
Material	Stainless Steel		
Actuator	Stainless Steel		
Body	Stainless Steel		
Base	PBT		

## Dimension

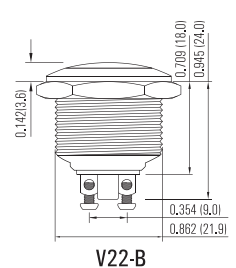
Screw



V22-H

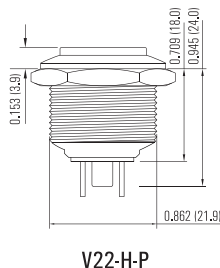


V22-F

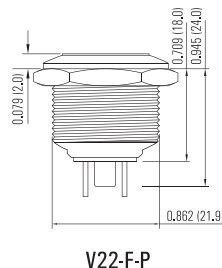


V22-B

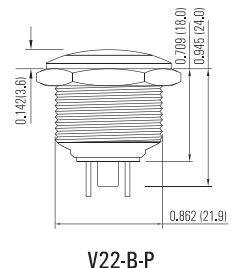
Solder



V22-H-P



V22-F-P



V22-B-P

**KEYFLEX**

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# Vandal Resistant Switch $\Phi 16\text{mm}$

## Anti-Vandal IK09/ Sealed IP65

## Illuminated And Non-Illuminated

## Flat/Concave

## Momentary/ Latching

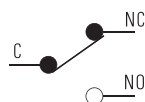
## Variety Of Colors

Momentary: Means that when you push Switch and then move your finger, the actuator will back to the original position.  
Latching: Means that when you push Switch once it will change state and stay in this pushed-down position and will not come back to original position unless you push it again.

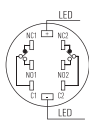
## Order Code

Series	Actuator Options	Terminal	Function	Material Finish	Illuminated Options	Color	Color Voltage	Protection
L16 L16S Short body	F- Flat H- Raised flat C- Concave G- Guarded concave	Pin(2,8x0,5) blank	M- Momentary 1 1N01NC 2 2N02NC Z- Latching 1 1N01NC 2 2N02NC	A- Anodized aluminum N- Nickel plated brass S- Stainless steel P- Polished Rotation blank	D- Dot R- Ring Non-Illuminated blank	W- White Y- Yellow B- Blue G- Green R- Red O- Orange	6V 12V 24V 36V 110V 230V	Blank IP40 IP65

## Operation



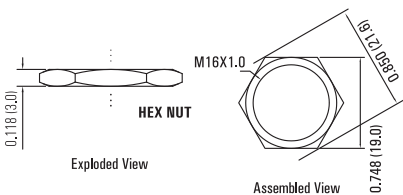
## Description



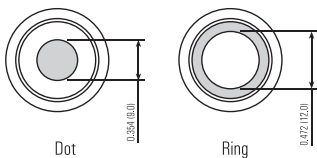
## Suggested Panel Cutout



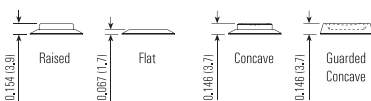
Max. Panel Thickness: 0.394 (10.0)



## Illuminated Options



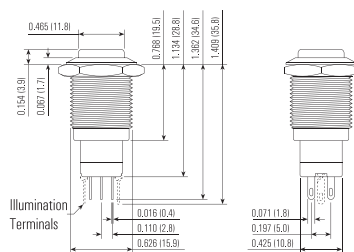
## Actuator Options



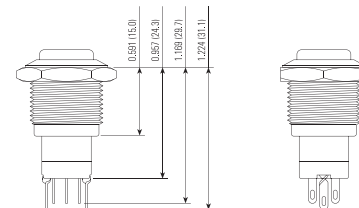
## Technical Data

Type	L16-F/L16s-F	L16-F/R	L16-F/D
Illuminated Type	Non-Illuminated	Ring	Dot
Terminal	Pin (1.8X0.4)		
Max.Switch Rating	Ith: 3A Ui: 250VAC		
Contact Resistance	$\leq 50\text{m}\Omega$		
Insulation Resistance	$\geq 1000\text{m}\Omega$		
Dielectric Strength	2000VAC		
Operation Temp.	-20°C ~ +55°C		
Mechanical Life	200,000 Cycles		
Electrical Life	>50,000 Cycles		
Contact Material	Silver Alloy		
Torque	5 ~ 14Nm		
Operation Pressure	3 ~ 5N		
Protection	IP40, IP65/ IK09		
Material			
Button	Stainless Steel/ *Anodized Aluminum		
Bodey	Stainless Steel/ Nickel Plated Brass/ *Anodized Aluminum		
Base	PBT		
Color	R G Y O B W		
Type	LED		
Voltage	6V/ 12V/ 24V/ 36V/ 110V/ 230V		
Life	Approx: 40,000 hours		

## Dimension



## Short Body Version



# Vandal Resistant Switch $\Phi 16\text{mm}$



Anti-Vandal IK08/ Sealed IP65

Illuminated

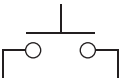
Momentary

Variety Of Colors

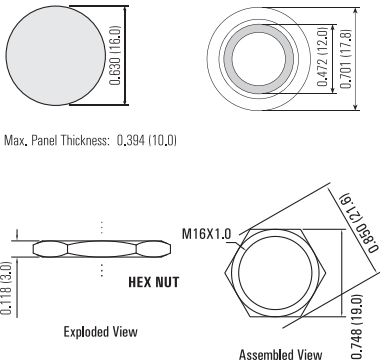
## Order Code

Series	Actuator Options	Terminal	Function	Material Finish	Illuminated Options	Color	Color Voltage	Marking Options
Ls16	F- Flat	Pin(2,0x0.5) blank	M- Momentary 1- 1NO	S- Stainless Steel A- *Anodized Aluminum N- Nickel plated brass	D- Dot R- Ring Non-illuminated blank	W- White Y- Yellow B- Blue G- Green R- Red O- Orange	6V 12V 24V 36V 110V 230V	Custom Markings Available

## Operation



## Suggested Panel Cutout



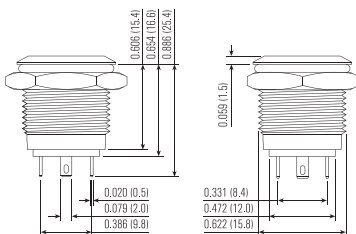
Max. Panel Thickness: 0.394 (10.0)

## Technical Data

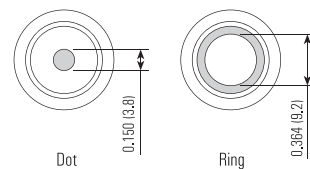
Type	Ls16-F	Ls16-F/R	Ls16-F/D
Illuminated Options	Non-Illuminated	Ring	Dot
Terminal	Pin (2.8X0.5)		
Max. Switch Rating	2A 36VDC		
Contact Resistance	$\leq 50\text{m}\Omega$		
Insulation Resistance	$\geq 1000\text{m}\Omega$		
Dielectric Strength	2000VAC		
Operation Temp	$-20^{\circ}\text{C} \sim +55^{\circ}\text{C}$		
Mechanical Life	1,000,000 Cycles		
Electrical Life	200,000 Cycles		
Contact Material	Silver Alloy		
Torque	5 ~ 14Nm		
Operation Pressure	3 ~ 5N		
Protection	IP65/ IK08		
Material			
Actuator	Stainless Steel/ *Anodized Aluminum		
Body	Stainless Steel/ Nickel Plated Brass/ *Anodized Aluminum		
Base	PBT		
Type	LED		
Voltage	6V/ 12V/ 24V/ 36V/ 110V/ 230V		
Color	R G Y O B W		
Life	Approx, 40,000 hours		

Current-limiting Resistance Configuration Table	Operating Voltage(U)		6V	12V	24V	36V	Formula $R = \frac{U-U_e}{I_e}$
	Current-limiting Resistance(R)		R Y O G B W	210 $\Omega$ , 1/4W 160 $\Omega$ , 1/4W	510 $\Omega$ , 1/2W 460 $\Omega$ , 1/2W	1.2k $\Omega$ , 3/4W 2.2k $\Omega$ , 1W	

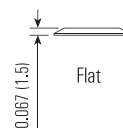
## Dimension



## Illuminated Options



## Actuator Options





# Vandal Resistant Pilot Lamp $\Phi 19\text{mm}$

Anti-Vandal IK09/ Sealed IP65

Illuminated And Non-Illuminated

Momentary/ Latching

Variety Of Colors

Momentary: Means that when you push Switch and then move your finger, the actuator will back to the original position;  
Latching: Means that when you push Switch once it will change state and stay in this pushed-down position and will not come back to original position unless you push it again.

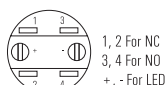
## Order Code

Series	Actuator Options	Terminal	Function	Material Finish	Illuminated Options	Color	Color Voltage	Marking Options
L19	F- Flat	Pin(2.8x0.5) no letter N- Screw	M- Momentary 1 1NO1NC Z- Latching 1 1NO1NC	S- Stainless Steel A- *Anodized Aluminum	D- Dot R- Ring no-illuminated no letter	W- White Y- Yellow B- Blue G- Green R- Red O- Orange	6V 12V 24V 36V 110V 230V	Custom Markings Available

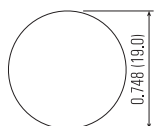
## Operation



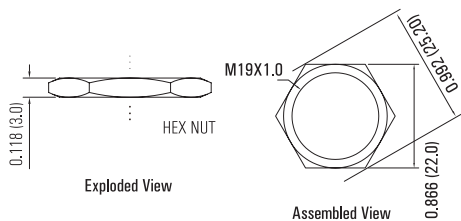
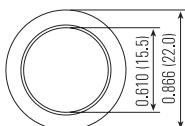
## Description



## Suggested Panel Cutout



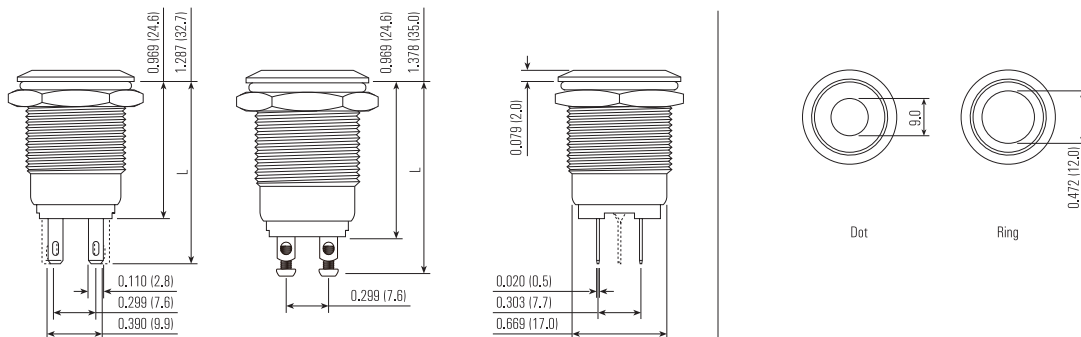
Max. Panel Thickness: 0.394 (10.0)



## Technical Data

Type	L19-F	L19-F/R	L19-F/D
Illuminated Options	Non-Illuminated	Ring	Dot
Terminal	Screw Pin (2.8X0.5)		
Max. Switch Rating	Ith: 5A Ui: 250VAC		
Contact Resistance	$\leq 50\text{m}\Omega$		
Insulation Resistance	$\geq 1000\text{m}\Omega$		
Dielectric Strength	2000VAC		
Operation Temp	$-20^{\circ}\text{C} \sim +55^{\circ}\text{C}$		
Mechanical Life	1,000,000 Cycles		
Electrical Life	50,000 Cycles		
Contact Material	Silver Alloy		
Torque	5 ~ 14Nm		
Operation Pressure	$\approx 4\text{N}$		
Protection	IP65/ IK09/ IP67 Can be Customized		
Material	Stainless Steel/ *Anodized Aluminum		
Actuator	Stainless Steel/ *Anodized Aluminum		
Body	Stainless Steel/ *Anodized Aluminum		
Base	PBT		
Type	LED		
Voltage	6V/ 12V/ 24V/ 36V/ 110V/ 230V		
Color	R G Y O B W		
Life	Approx, 40,000 hours		

## Dimension



Latching Length Will Be + 10mm

# Vandal Resistant Switch $\Phi 19\text{mm}$



**Anti-Vandal IK09/ Sealed IP65**

**Illuminated And Non-Illuminated**

**Variety Of Colors**

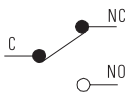
**Momentary/ Latching**

Momentary: Means that when you push Switch and then move your finger, the actuator will back to the original position;  
Latching: Means that when you push Switch once it will change state and stay in this pushed-down position and will not come back to original position unless you push it again.

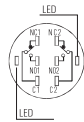
## Order Code

Series	Actuator Options	Terminal	Function	Material Finish	Illuminated Options	Color	Color Voltage	Marking Options
L19A	F- Flat	Pin(2.8x0.5) no letter	M- Momentary 1 1N01NC 2 2N02NC Z- Latching 1 1N01NC 2 2N02NC	S- Stainless Steel A- *Anodized Aluminum	D- Dot R- Ring non-illuminated no letter	W- White Y- Yellow B- Blue G- Green R- Red O- Orange	6V 12V 24V 36V 110V 230V	Custom Markings Available

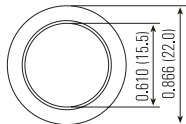
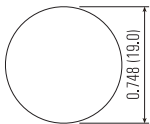
## Operation



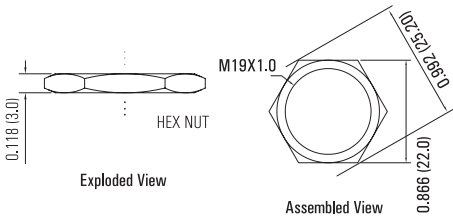
## Description



## Suggested Panel Cutout



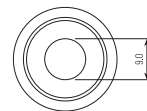
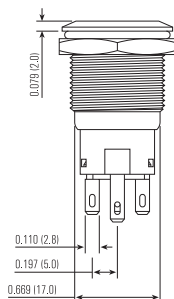
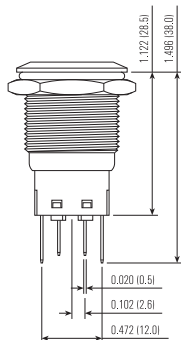
Max. Panel Thickness: 0.394 (10.0)



## Technical Data

Type	L19A-F	L19A-F/R	L19A-F/D
Illuminated Options	Non-Illuminated	Ring	Dot
Terminal	Pin (2.8X0.5)		
Max. Switch Rating	Ith:5A Ui:250VAC		
Contact Resistance	$\leq 50\text{m}\Omega$		
Insulation Resistance	$\geq 1000\text{m}\Omega$		
Dielectric Strength	2000VAC		
Operation Temp	-20°C ~ +55°C		
Mechanical Life	1,000,000 Cycles		
Electrical Life	50,000 Cycles		
Contact Material	Silver Alloy		
Torque	5 ~ 14Nm		
Operation Pressure	3 ~ 5N		
Protection	IP65/ IK09		
Material			
Actuator	Stainless Steel/ *Anodized Aluminum		
Body	Stainless Steel/ *Anodized Aluminum		
Base	PBT		
Type	LED		
Voltage	6V/ 12V/ 24V/ 36V/ 110V/ 230V		
Color	R G Y O B W		
Life	Approx, 40,000 hours		

## Dimension



Dot

Ring





## Vandal Resistant Switch $\Phi 19\text{mm}$

Anti-Vandal IK09/ Sealed IP65

Illuminated And Non-Illuminated

Momentary

Variety of Colors

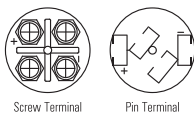
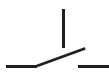
Momentary: Means that when you push Switch and then move your finger, the actuator will back to the original position.

### Order Code

Series	Actuator Options	Terminal	Function	Material Finish	Illuminated Options	Color	Color Voltage	Marking Options
L19M	F- Flat	Pin(2,8x0.8) blank N- Screw	Momentary Blank	S- Stainless Steel A- *Anodized Aluminum	D- Dot R- Ring Non-Illuminated blank	W- White Y- Yellow B- Blue G- Green R- Red O- Orange	6V 12V 24V 36V 110V 230V	Custom Markings Available

### Operation

### Description

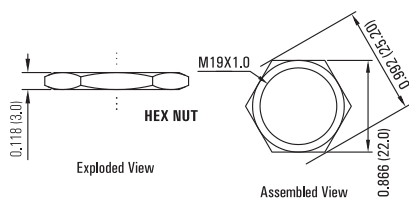


LED terminals marked + and Switch terminals unmarked.

### Suggested Panel Cutout



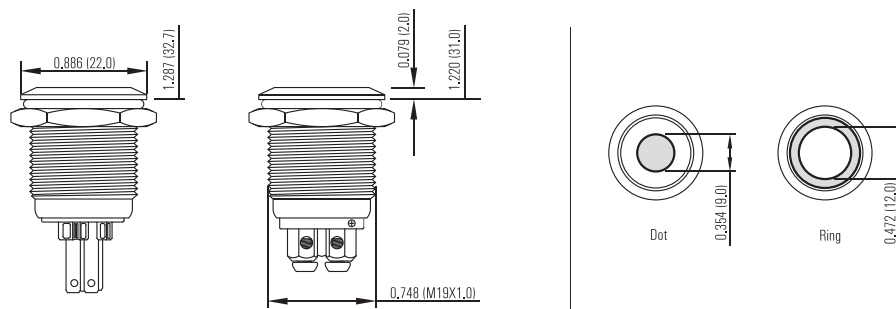
Max. Panel Thickness: 0.394 (10.0)



### Technical Data

Type	L19M-F	L19M-F/R	L19M-F/D
Illuminated Options	Non-Illuminated	Ring	Dot
Terminal	Screw Pin (2.8X0.8)		
Max. Switch Rating	0.5A 24VDC		
Contact Resistance	$\leq 50\text{m}\Omega$		
Insulation Resistance	$\geq 1000\text{m}\Omega$		
Dielectric Strength	2000VAC		
Operation Temp	$-20^{\circ}\text{C} \sim +55^{\circ}\text{C}$		
Mechanical Life	1,000,000 Cycles		
Electrical Life	50,000 Cycles		
Contact Material	Silver Alloy		
Rear Nut Fixing Torque	0.57Nm		
Operation Pressure	12N		
Protection	IP65/ IK09		
Material			
Switch Assembly	UL94V-0 Rated Polyamide (Nylon)		
Tags	Copper Alloy		
Terminals	Copper Alloy		
Switch Body & Button	Stainless Steel/ *Anodized Aluminum		
Lens and Lens Body	Polycarbonate		
Internal Seal	Silicone		
O Ring	Nitrile		
Type	LED		
Voltage	6V/ 12V/ 24V/ 36V/ 110V/ 230V		
Color	R G Y O B W		
Life	Approx, 40,000 hours		

### Dimension



## Buzzer & Flicker Buzzer $\Phi 19\text{mm}$



### Sealed IP40

### Buzzer/ Flicker Buzzer

### Variety Of Colors

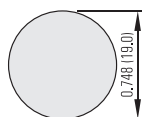
### Illuminated And Non-Illuminated

### Order Code

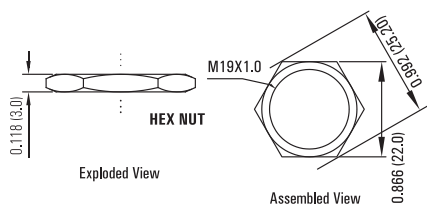
Series	Function Options	Terminal	Material Finish	Illum. Options	Color	Color Voltage
Lf19	<input type="checkbox"/> Buzzer blank ONLY BUZZER flashing <input type="checkbox"/> F- Flicker Buzzer A- Alternately flashing color C- LED close when buzzer pause H- LED always lighting when buzzer pause S- Bi-color LED Strobe, The buzzer call in Slow Blank LED with Buzzer not pause The function can be customized.	<input type="checkbox"/> Blank screw	<input type="checkbox"/> Blank <input type="checkbox"/> Stainless Steel	<input type="checkbox"/> Blank <input type="checkbox"/> Ring-illum.	<input type="checkbox"/> Blank <input type="checkbox"/> Non-illum. B    Blue G    Green R    Red Y    Yellow W    White RG    Red/green RY    Red/yellow RB    Red/blue RW    Red/white GB    Green/blue GY    Green/yellow GW    Green/white BY    Blue/yellow YW    Yellow/white	<input type="checkbox"/> DC12V <input type="checkbox"/> DC24V <input type="checkbox"/> AC110V <input type="checkbox"/> AC220V

**Remark:**  
 The function 'A' standard color for Red and Green,  
 The function 'C' and 'H' standard color for Red,  
 The function 'S' standard color for Red and Blue.

### Suggested Panel Cutout



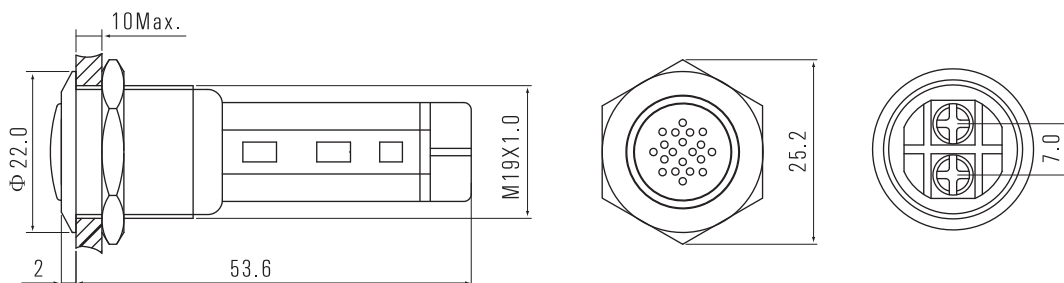
Max. Panel Thickness: 0.394 (10.0)



### Technical Data

Type	Lf19	Lf19-F
Function	Buzzer	Flicker Buzzer
Terminal	Screw	
Max. Switch Rating	--	
Contact Resistance	--	
Insulation Resistance	--	
Dielectric Strength	2000VAC	
Operation Temp	-20°C ~ +55°C	
Mechanical Life	--	
Electrical Life	--	
Contact Material	--	
Torque	5 ~ 14Nm	
Operation Pressure	--	
Protection	IP50, IKD4	
Material	--	
Actuator	Stainless	
Body	Stainless Steel	
Base	PA	
Buzzer Spec.		
Type	Buzzer	Flicker Buzzer
Voltage	DC12V/ DC24V	
Color	--	<input type="checkbox"/> R <input type="checkbox"/> G <input type="checkbox"/> Y <input type="checkbox"/> O <input type="checkbox"/> B <input type="checkbox"/> W
Sound Inten	≥80dB(0.1m)	

### Dimension





## Vandal Resistant Switch $\Phi 22\text{mm}$

### Anti-Vandal IK09/ Sealed IP65

### Illuminated and Non-Illuminated

### Flat/ Concave

### Momentary/ Latching

### Variety of Colors

Momentary: Means that when you push Switch and then move your finger, the actuator will back to the original position;  
Latching: Means that when you push Switch once it will change state and stay in this pushed-down position and will not come back to original position unless you push it again.

### Order Code

Series	Actuator Options	Terminal	Function	Material Finish	Illuminated Options	Color	Color Voltage	Marking Options
L22	F: Flat C: Concave	Pin(2.8x0.5) no letter	M- Momentary 1- 1NO1NC Z- Latching 1- 1NO1NC	S- Stainless Steel A- *Anodized Aluminum	D- Dot R- Ring non-illuminated no letter	W- White Y- Yellow B- Blue G- Green R- Red O- Orange	6V 12V 24V 36V 110V 230V	Custom Markings Available

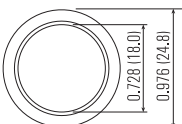
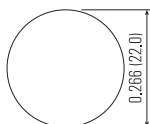
### Operation

### Description

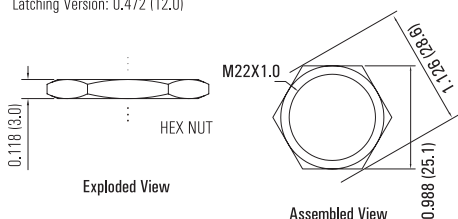


'+' and '-' for LED Lamp

### Suggested Panel Cutout



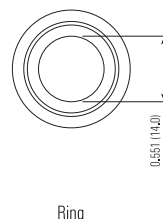
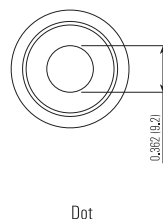
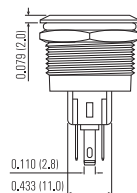
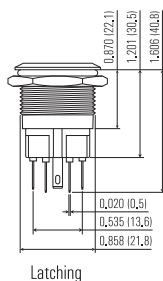
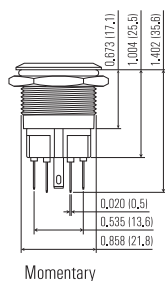
Max. Panel Thickness:  
Momentary Version: 0.315 (8.0)  
Latching Version: 0.472 (12.0)



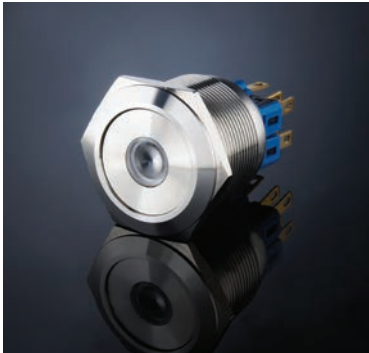
### Technical Data

Type	L22-F	L22-F/R	L22-F/D
Illuminated Options	Non-Illuminated	Ring	Dot
Terminal	Pin (2.8X0.5)		
Max. Switch Rating	Ith: 5A Ui: 250VAC		
Contact Resistance	$\leq 50\text{m}\Omega$		
Insulation Resistance	$\geq 1000\text{m}\Omega$		
Dielectric Strength	2000VAC		
Operation Temp	$-20^{\circ}\text{C} \sim +55^{\circ}\text{C}$		
Mechanical Life	1,000,000 Cycles		
Electrical Life	>50,000 Cycles		
Contact Material	Silver Alloy		
Torque	5 ~ 14Nm		
Operation Pressure	3 ~ 8N		
Protection	IP65/ IK10		
Material	Stainless Steel/ *Anodized Aluminum		
Actuator	Stainless Steel/ *Anodized Aluminum		
Body	Stainless Steel/ *Anodized Aluminum		
Base	PA		
Color	LED		
Type	LED		
Voltage	6V/ 12V/ 24V/ 36V/ 110V/ 230V		
Color	R G Y O B W		
Life	Approx, 40,000 hours		

## Dimension



# Vandal Resistant Switch $\Phi 25\text{mm}$



## Anti-Vandal IK09/ Sealed IP65

## Illuminated and Non-Illuminated

## Flat/ Concave

## Momentary/ Latching

## Variety of Colors

Momentary: Means that when you push Switch and then move your finger, the actuator will back to the original position;  
Latching: Means that when you push Switch once it will change state and stay in this pushed-down position and will not come back to original position unless you push it again.

## Order Code

Series	Actuator Options	Terminal	Function	Material Finish	Illuminated Options	Color	Color Voltage	Marking Options
L25	F: Flat C: Concave	Pin(2.8x0.5) no letter	M: Momentary 1- 1NO1NC 2- 2NO2NC Z: Latching 1- 1NO1NC 2- 2NO2NC	S: Stainless Steel A: *Anodized Aluminum	D: Dot R: Ring non-illuminated no letter	W: White Y: Yellow B: Blue G: Green R: Red O: Orange	6V 12V 24V 36V 110V 230V	Custom Markings Available

## Operation



## Description

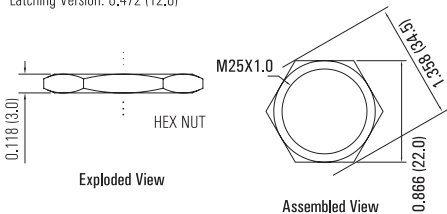


'+' and '-' for LED Lamp

## Suggested Panel Cutout



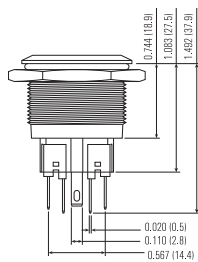
Max. Panel Thickness:  
Momentary Version: 0.394 (10.0)  
Latching Version: 0.472 (12.0)



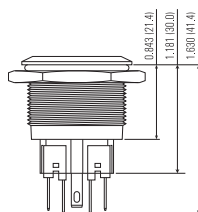
## Technical Data

Type	L25-F	L25-F/R	L25-F/D
Illuminated Options	Non-Illuminated	Ring	Dot
Terminal	Pin (2.8X0.5)		
Max. Switch Rating	Ith: 5A Ui: 250VAC		
Contact Resistance	$\leq 50\text{m}\Omega$		
Insulation Resistance	$\geq 1000\text{m}\Omega$		
Dielectric Strength	2000VAC		
Operation Temp	$-20^{\circ}\text{C} \sim +55^{\circ}\text{C}$		
Mechanical Life	1,000,000 Cycles		
Electrical Life	> 50,000 Cycles		
Contact Material	Silver Alloy		
Torque	5 ~ 14Nm		
Operation Pressure	3 ~ 8N		
Protection	IK10		
Material	Stainless Steel/ *Anodized Aluminum		
Actuator	Stainless Steel/ *Anodized Aluminum		
Body	Stainless Steel/ *Anodized Aluminum		
Base	PA		
Type	LED		
Voltage	6V/ 12V/ 24V/ 36V/ 110V/ 230V		
Color	R G Y O B W		
Life	Approx, 40,000 hours		

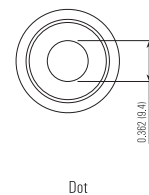
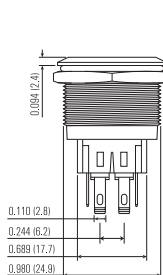
## Dimension



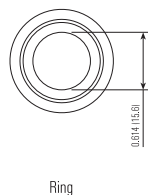
Momentary



Latching



Dot



Ring