

# Switches for Tough Environments

for Applications up to 50 Amps



**NIKK**  
SWITCHES



## Switches for Your Toughest Applications

NKK Switches has a full range of illuminated and nonilluminated switches with electrical ratings from 3A to 50A, as well as wide temperature ranges for your toughest applications.

Our sealed switches are rated from IP60 to IP67 and meet the IEC 60529 (EN 60529) standard. Environmentally sealed switches are ideally suited to meet the challenges of heat, humidity and exposure to the elements. Standards approvals such as UL, CSA, and others are available on many models.

### Boots for Additional Protection

In addition to sealed switches, NKK offers a variety of boots for additional environmental protection. These boots are compatible with many of our toggle and pushbutton switches.



**New YB2 Series 22mm Pushbuttons**  
*Square Models Also Available*

### Value Added Services

NKK's in-house value added team provides electronic and cable assemblies. Additional services include laser, pad, and screen printing on metal and plastic materials. Customers use these services to add legends to switch caps. Our US facility is ISO 9001:2008 and UL registered for wire harness and cable assemblies. All personnel are trained and certified to IPC 610/620 standards.

### Custom Solutions

NKK's engineering team works closely with customers to develop application specific solutions. Let us know your application needs!

#### **Visit our website for:**

- *3D CAD Models*
- *Switch Samples*
- *Data Sheets*
- *Online Switch Guide*
- *Product Configuration Tool*
- *Training Materials*

**or contact us directly!**

## More Than 50 Years of Engineering Excellence

- Design and Manufacturing of All Products
- Widest Selection of Electromechanical Switches in the Industry
- Free Online 3D CAD Models with over 500,000 Product Variations
- Custom Products for Specific Applications
- High Quality and Environmentally Safe Products (RoHS, REACH, etc.)
- ISO Certified Facilities
- Value Added Services
  - Printing (screen, pad, and laser)
  - Wire Harness Assembly



*Military*



*Industrial*




*Medical*

















*Transportation*



*Construction*

OLED Rocker	Switch Series	Illuminated	IP Rating	Electrical Rating	Operating Temperature	Terminal Options	Mounting Type/Panel Cutout
	<b>IS SmartSwitch</b>	Yes OLED Display	IP64	<b>Power Level:</b> 3VA max DC	-20 ~ +70°C -4 ~ +158°F	12 Pin Connector	Snap-in  Cutout: 1.913" x 1.394" (48.6 x 35.4mm)




## Toggle Switches

	<b>B Toggles</b>	Yes Full & None	IP65 Panel Seal Models with A1 Bushing (Nonilluminated only)	<b>Logic Level:</b> 0.4VA max @ 28V AC/DC max	-30 ~ +85°C -22 ~ +185°F  <b>Illuminated Models:</b> -25 ~ +55°C -13 ~ +131°F	PC	6mm Bushing  Cutout: 6mm with Double Flat
      	<b>M Toggles</b>	No	IP67 with Bushings D3 D8 B3 L3 L8	<b>Power Level:</b> 6A @ 125V AC; 3A @ 250V AC; 3~4A @ 30V DC  <b>Logic Level:</b> 0.4VA max @ 28V AC/DC max	-30 ~ +85°C -22 ~ +185°F	Quick Connect PC Wirewrap Solder Lug Wire Assembly Available	6mm, 1/4-40 Thd or 12mm Bushing  Cutout: See Details in NKK's Switch Guide or <a href="http://nkkswitches.com">nkkswitches.com</a>
     	<b>P Toggles</b>	No	IP65 with Boots AT401 AT402 AT4181	<b>Power Level:</b> 10A @ 125V AC; 6A @ 250V AC  <b>Motor Load:</b> 400W @ 125V AC  <b>Lamp Load:</b> 2~3A @ 125V AC	-10 ~ +85°C +14 ~ +185°F	Quick Connect PC Solder Lug Wire Assembly Available	6mm, 1/4-40 Thd or 12mm Bushing  Cutout: See Details in NKK's Switch Guide or <a href="http://nkkswitches.com">nkkswitches.com</a>




## Toggle Switches

	Switch Series	Illuminated	IP Rating	Electrical Rating	Operating Temperature	Terminal Options	Mounting Type/Panel Cutout
 	<b>S Toggles</b> <b>2~5A</b> <b>Low Capacity</b>  	No	IP65 with Boots AT401 AT402 AT4181	<b>Power Level:</b> 5A @ 125V AC; 2A @ 250V AC; 5A @ 30V DC	-10 ~ +70°C +14 ~ +158°F	Solder Lug Wire Assembly Available	12mm Bushing  Cutout: 12.5mm with Keyway
 	<b>S Toggles</b> <b>6~25A</b> <b>Medium/</b> <b>High Capacity</b>  	No	IP67 Panel Seal Models with AW Bushing or AL Bushing for Locking Lever	<b>Power Level:</b> 15~25A @ 125V AC or 30V DC; 6~25A @ 250V AC  <b>Motor Load:</b> 750W @ 125V AC	-10 ~ +70°C +14 ~ +158°F  <b>IP Rated Models:</b> -30 ~ +70°C -22 ~ +158°F	Screw Lug  Quick Connect  Solder Lug Wire Assembly Available	12mm Bushing  Cutout: See Details in NKK's Switch Guide or nkkswitches.com
 	<b>S Toggles</b> <b>15~50A</b> <b>High Capacity</b>  	No	IP65 with AT401 Boot  15~30A Models Only	<b>Power Level:</b> 30~50A @ 125V AC or 30V DC; 15~30A @ 250V AC; 30A @ 48V DC  <b>Motor Load:</b> 400~750W @ 125V AC	-10 ~ +70°C +14 ~ +158°F	Screw Lug	12mm Bushing  Cutout: See Details in NKK's Switch Guide or nkkswitches.com
	<b>S821D</b> <b>S822D</b> <b>Toggles</b> <b>4~30A</b>  <b>DC High</b> <b>Capacity</b>   30A @ 30V DC, 15A @ 125V DC	No	No	<b>Power Level:</b> 20A @ 125V DC; 15A @ 250V DC; 30A @ 30V or 48V DC 4A @ 400V DC; (10A @ 400V DC)  ( ) capacity is due to series wiring	-10 ~ +70°C +14 ~ +158°F	Screw Lug	12mm Bushing  Cutout: See Details in NKK's Switch Guide or nkkswitches.com
	<b>TL Toggles</b>	Yes  Full	IP65 with AT401P O-ring	<b>Power Level:</b> 6A @ 125V AC; 3A @ 250V AC; 6A @ 12V DC	-10 ~ +55°C +14 ~ +131°F	Solder Lug Wire Assembly Available	12mm Bushing  Cutout: 12.5mm with Keyway

## Toggle Switches

Toggle Switches	Switch Series	Illuminated	IP Rating	Electrical Rating	Operating Temperature	Terminal Options	Mounting Type/Panel Cutout
 	WT Toggles	No	Front Panel IP67 Behind Panel IP67 for Wire IP60 for Solder, Screw	<b>Power Level:</b> 10A @ 125V AC; 6A @ 250V AC; 10A @ 30V DC	-30 ~ +70°C -22 ~ +158°F	Screw Wire Lead Solder Lug Wire Assembly Available	12mm Bushing Cutout: 12.5mm with D-flat
	ST Toggles	No	IP67 with AT401P O-ring Hermetically Sealed Withstands 5 Actuations in 13mm Water	<b>Power Level:</b> 10~25A @ 125V AC; 15~30A @ 30V DC	-63 ~ +71°C -81 ~ +159°F	Screw	12mm Bushing Cutout: 12.5mm with D-flat





## Rocker Switches

	CWS Rockers	No	No	<b>Power Level:</b> 6A @ 250V AC	-10 ~ +70°C +14 ~ +158°F	Quick Connect PC Solder Lug Wire Assembly Available	Snap-in Cutout: .756" x .508" (19.2 x 12.9mm)
	CWSB CWSC Rockers	Yes Full	No	<b>Power Level:</b> 9A @ 125V AC 6A @ 250V AC for CWSC only	<b>CWSB:</b> -20 ~ +85°C -4 ~ +185°F <b>CWSC:</b> -10 ~ +50°C +14 ~ +122°F	<b>CWSB:</b> Solder Lug .187" (4.75mm) Quick Connect Wire Assembly Available <b>CWSC:</b> Solder Lug .110" (2.79mm) Quick Connect Wire Assembly Available	Snap-in Cutout: .756" x .508" (19.2 x 12.9mm)
	CWT Rockers	No	No	<b>Power Level:</b> 6A @ 125V AC; 3A @ 250V AC; 4A @ 30V DC	-25 ~ +70°C -13 ~ +158°F	Solder Lug Wire Assembly Available	Snap-in Cutout: .756" x .268" (19.2 x 6.8mm)



## Rocker Switches

	Switch Series	Illuminated	IP Rating	Electrical Rating	Operating Temperature	Terminal Options	Mounting Type/Panel Cutout
	<b>LW3021A Rocker</b>	Yes Spot Neon	No	<b>Power Level:</b> 20A @ 110V AC	-10 ~ +50°C +14 ~ +122°F	Solder Lug Wire Assembly Available	2-screw Panel or Subpanel Mount  Cutout: See Details in NKK's Switch Guide or nkkswitches.com
	<b>P Rockers</b>  	No	No	<b>Power Level:</b> 10A @ 125V AC; 6A @ 250V AC  <b>Motor Load:</b> 400W @ 125V AC  <b>Lamp Load:</b> 2~3A @ 125V AC	-10 ~ +85°C +14 ~ +185°F	Quick Connect  PC  Solder Lug Wire Assembly Available	Frame Mount  Cutout: See Details in NKK's Switch Guide or nkkswitches.com
	<b>SW Rockers Medium Capacity</b>  	No	No	<b>Power Level:</b> 15~20A @ 125V AC or 30V DC; 6~10A @ 250V AC	-10 ~ +70°C +14 ~ +158°F	Solder Lug Wire Assembly Available	2-screw Panel or Subpanel Mount  Cutout: See Details in NKK's Switch Guide or nkkswitches.com
	<b>SW Rockers High Capacity</b>  	No	No	<b>Power Level:</b> 30A @ 125/250V AC or 30V DC	-10 ~ +70°C +14 ~ +158°F	Screw Lug	2-screw Panel or Subpanel Mount  Cutout: See Details in NKK's Switch Guide or nkkswitches.com
	<b>SW3821D SW3822D Rockers DC High Capacity</b>   30A @ 30V DC, 15A @ 125V DC	No	No	<b>Power Level:</b> 20A @ 125V DC; 15A @ 250V DC; 30A @ 30V or 48V DC 4A @ 400V DC; (10A @ 400V DC)  ( ) capacity is due to series wiring	-10 ~ +70°C +14 ~ +158°F	Screw Lug	2-screw Panel or Subpanel Mount  Cutout: See Details in NKK's Switch Guide or nkkswitches.com
	<b>WR Rockers</b>  	No	Front Panel IP67  Behind Panel IP67 for Wire, IP60 for Solder, Screw, QC	<b>Power Level:</b> 15A @ 125/250V AC or 30V DC	-25 ~ +85°C -13 ~ +185°F	Screw Lug  Quick Connect  Wire Lead  Solder Lug Wire Assembly Available	Snap-in  Cutout: 1.346" x .677" (34.2 x 17.2mm)

## Rocker Switches

	Switch Series	Illuminated	IP Rating	Electrical Rating	Operating Temperature	Terminal Options	Mounting Type/Panel Cutout
	<b>JWL JWLW Rockers</b>  UL, cUL, SF DVE	No	<b>JWL:</b> IP50 with AT4126 Dust Cover  <b>JWLW:</b> IP67	<b>Power Level:</b> 16A @ 125/250V AC; 5A @ 72V DC  <b>JWL:</b> TV-8 Rated High Inrush (117A)	<b>JWL:</b> -25 ~ +70°C -13 ~ +158°F  <b>JWLW:</b> -25 ~ +85°C -13 ~ +185°F	Solder Lug .187" (4.75mm) Quick Connect Wire Assembly Available	Snap-in  Cutout JWL: 1.161" x .807" (29.5 x 20.5mm)  Cutout JWLW: 1.209" x .807" (30.7 x 20.5mm)
	<b>JWM JMW Rockers</b>  UL, cUL, SF DVE	No	<b>JWM:</b> No  <b>JMW:</b> IP67	<b>Power Level:</b> 10A @ 125/250V AC  10A @ 30V DC for JMW only  <b>JWM:</b> TV-5 Rated High Inrush (78A)	<b>JWM:</b> -25 ~ +70°C -13 ~ +158°F  <b>JMW:</b> -25 ~ +85°C -13 ~ +185°F	Solder Lug .110" (2.79mm) Quick Connect Wire Assembly Available	Snap-in  Cutout JWM: .945" x .606" (24.0 x 15.4mm)  Cutout JMW: .984" x .606" (25.0 x 15.4mm)
	<b>JWS Rockers</b>  UL, cUL, SF DVE	Yes Spot & None	No	<b>Power Level:</b> 5~10A @ 125/250V AC	-25 ~ +70°C -13 ~ +158°F  <b>Illuminated Models:</b> -25 ~ +50°C -13 ~ +122°F	Solder Lug .187" (4.75mm) Quick Connect Wire Assembly Available	Snap-in  Cutout: .756" x .508" (19.2 x 12.9mm)
	<b>LW Rockers</b>  UL, cUL	Yes Two Colors	No	<b>Power Level:</b> 10A @ 125V AC; 6A @ 250V AC or 12V DC	-20 ~ +50°C -4 ~ +122°F	Solder Lug Wire Assembly Available	Snap-in  Cutout: 1.260" x .780" (32.0 x 19.8mm)

## Pushbutton Switches

	<b>JPL Pushbuttons</b>  UL, cUL, SF DVE	No	No	<b>Power Level:</b> 16A @ 125/250V AC  TV-8 Rated High Inrush (117A)	-10 ~ +70°C +14 ~ +158°F	Solder Lug .187" (4.75mm) Quick Connect Wire Assembly Available	Snap-in  Cutout: 1.102" x .835" (28.0 x 21.2mm)
	<b>JPM Pushbuttons</b>  UL, cUL, SF DVE	No	No	<b>Power Level:</b> 10A @ 125/250V AC  TV-5 Rated High Inrush (78A)	-10 ~ +70°C +14 ~ +158°F	Solder Lug .187" (4.75mm) Quick Connect Wire Assembly Available	Snap-in  Cutout: 1.102" x .835" (28.0 x 21.2mm)



Pushbutton Switches	Switch Series	Illuminated	IP Rating	Electrical Rating	Operating Temperature	Terminal Options	Mounting Type/Panel Cutout
	<b>LB Pushbuttons</b> <b>Round, Square &amp; Rectangular Models</b> 	Yes  Full, Spot & None	IP65 Panel Seal Models  IP60 with Dust Covers AT4001 AT4002 AT4011	<b>Power Level:</b> 3A @ 125/250V AC or 30V DC  <b>Logic Level:</b> 0.4VA max @ 28V AC/DC max	-25 ~ +70°C -13 ~ +158°F  <b>Illuminated Models:</b> -25 ~ +50°C -13 ~ +122°F	Solder Lug .110" (2.79mm) Quick Connect Wire Assembly Available  PCB Adaptors Available	Bushing  Cutout: See Details in NKK's Switch Guide or <a href="http://nkkswitches.com">nkkswitches.com</a>
 	<b>MB2000 Pushbuttons</b> 	No	IP67 with Bushings B3 D3  IP65 with Boots AT4041 AT4042 AT4043	<b>Power Level:</b> 6A @ 125V AC; 3A @ 250V AC or 30V DC  <b>Logic Level:</b> 0.4VA max @ 28V AC/DCmax	-30 ~ +85°C -22 ~ +185°F	Quick Connect  PC  Wirewrap  Solder Lug Wire Assembly Available	Bushing  Cutout: See Details in NKK's Switch Guide or <a href="http://nkkswitches.com">nkkswitches.com</a>
	<b>SB Pushbuttons</b> 	No	No	<b>Power Level:</b> 3~15A @ 125V; 1.5~9A @ 250V AC	-10 ~ +70°C +14 ~ +158°F	Solder Lug Wire Assembly Available	12mm Bushing  Cutout: 12.5mm with Keyway
	<b>SCB Pushbuttons</b> <b>Round &amp; Square Models</b> 	No	No	<b>Power Level:</b> 15A & 0.5HP @ 125/250V AC  <b>Lamp Load:</b> 5A @125V AC	-40 ~ +85°C -40 ~ +185°F	Quick Connect	12mm Bushing  Cutout: 12.5mm with Keyway
	<b>UB Pushbuttons</b> <b>Square &amp; Rectangular Models</b> 	Yes  Full, Spot & None	No	<b>Power Level:</b> 5A @ 125/250V AC; 5A @ 30V DC  <b>Logic Level:</b> 0.4VA max @ 28V AC/DC max	-20 ~ +70°C -4 ~ +158°F  <b>Illuminated Models:</b> -25 ~ +50°C -13 ~ +122°F	PC  Solder Lug Wire Assembly Available	Snap-in  Cutout: .638" Sq (16.2mm Sq) or .638" x .882" (16.2 x 22.4mm)
	<b>UB2 Pushbuttons</b> <b>Alternating Legend Option</b> 	Yes  Full & None	No	<b>Power Level:</b> 5A @ 125/250V AC or 30V DC  <b>Logic Level:</b> 0.4VA max @ 28V AC/DC max	-25 ~ +70°C -13 ~ +158°F  <b>Illuminated Models:</b> -25 ~ +50°C -13 ~ +122°F	PC  Solder Lug Wire Assembly Available	Snap-in  Cutout: .685" Sq (17.4mm Sq)

Pushbutton Switches	Switch Series	Illuminated	IP Rating	Electrical Rating	Operating Temperature	Terminal Options	Mounting Type/Panel Cutout
	<b>WB Pushbuttons</b>	No	Front Panel IP67  Behind Panel IP67 for Wire IP60 for Solder & Screw	<b>Power Level:</b> 6A @ 125V AC or 30V DC; 3A @ 250V AC	-30 ~ +70°C -22 ~ +158°F	Screw Lug  Wire Lead  Solder Lug Wire Assembly Available	12mm Bushing  Cutout: 12.5mm with D-flat
	<b>YB Pushbuttons</b>  <b>Round, Square &amp; Rectangular Models</b>  	Yes  Full, Spot & None	IP65 with Panel Seal Bushing Mount  IP60 with AT4115 Dust Cover	<b>Power Level:</b> 3A @ 125/250V AC or 30V DC  <b>Logic Level:</b> 0.4VA max @ 28V AC/DC max	-25 ~ +70°C -13 ~ +158°F  <b>Illuminated Models:</b> -25 ~ +50°C -13 ~ +122°F	Solder Lug .110" (2.79mm) Quick Connect Wire Assembly Available	Bushing  Snap-in  Cutout: See Details in NKK's Switch Guide or nkkswitches.com
	<b>YB2 22mm Pushbuttons</b>  <b>Round &amp; Square Models</b>  	Yes  Full, Ring & None	IP65 Panel Seal Flush Mount	<b>Power Level:</b> 3A @ 125/250V AC or 30V DC  <b>Logic Level:</b> 0.4VA max @ 28V AC/DC max	-25 ~ +70°C -13 ~ +158°F  <b>Illuminated Models:</b> -25 ~ +50°C -13 ~ +122°F	Solder Lug .110" (2.79mm) Quick Connect Wire Assembly Available	Bushing  Cutout: 22mm with Keyway

## Keylock Switches

	<b>CK Keylocks High Security</b>	No	No	<b>Power Level:</b> 3A @ 250V AC	-25 ~ +70°C -13 ~ +158°F	Solder Lug Wire Assembly Available	Bushing  Cutout: 16mm or 19mm with Double Flat
	<b>SK Keylocks Low &amp; Medium Security</b>  	No	No	<b>Power Level:</b> 1~3A @ 250V AC	-25 ~ +70°C -13 ~ +158°F	Solder Lug Wire Assembly Available	12mm Bushing  Cutout: 12mm with Double Flat

Rotary Switches	Switch Series	Illuminated	IP Rating	Electrical Rating	Operating Temperature	Terminal Options	Mounting Type/Panel Cutout
	<b>MRB MRK Rotaries</b>	No	IP67 with AT535 o-ring	<b>Logic Level:</b> 0.4VA max @ 28V AC/DC max	-10 ~ +70°C +14 ~ +158°F	PC	6mm Bushing  Cutout: 6.2mm with Double Flat
	<b>HS13 HS16 Rotaries</b>  HS16	No	No	<b>HS13 Power Level:</b> 6A @ 125V AC; 3A @ 250V AC; 5A @ 30V DC  <b>HS16 Power Level:</b> 12A @ 125V AC; 6A @ 250V AC	-10 ~ +70°C +14 ~ +158°F	Solder Lug Wire Assembly Available	10mm Bushing  Cutout: See Details in NKK's Switch Guide or nkkswitches.com
	<b>PS Rotaries</b>	No	No	<b>Power Level:</b> 30A @ 125/250V AC	-10 ~ +70°C +14 ~ +158°F	Screw Lug	10mm Bushing  Cutout: See Details in NKK's Switch Guide or nkkswitches.com
	<b>TS Rotaries</b>	No	No	<b>Power Level:</b> 6A @ 125/250V AC	-10 ~ +70°C +14 ~ +158°F	Screw Lug	10mm Bushing  Cutout: See Details in NKK's Switch Guide or nkkswitches.com
<b>Optional Knobs for Rotary Switches (Only Models with D-flat Shaft)</b>							
<b>AT431 Large Rotary Knob</b> Black with white indicator line				<b>AT432 Small Rotary Knob</b> Black with white indicator line			

## Panel Seal Boots

NKK offers a variety of boots compatible with toggles and pushbuttons to seal switches to achieve IP65 rating at the front panel.

PN	AT401 Half Boot	AT402, AT402S Full Boots	AT428 Full Boot	AT4041, AT4042 Full Boots	AT4043 Full Boot	AT4181 Full Boot
<b>Material</b>	 AT401A: Nitrile butadiene rubber AT401H: Ethylene propylene rubber AT401S: Silicone rubber	 Silicone rubber	 Silicone rubber	 Silicone rubber	 Silicone rubber	 Silicone rubber
<b>Color</b>	Black for AT401A Gray for AT401H Black for AT401S	Black, Red, Yellow, Green, and Gray	Black	Black	Black	Black
<b>Bushing</b>	12mm	12mm	M6 or 1/4-40 Thd	M6 or 1/4-40 Thd	12mm	12mm

## IP Code for Degrees of Protection for Enclosures

The IP code is part of the IEC 60529 (EN 60529) standard specifying the degree of protection. The first number specifies protection against solid objects (e.g. fingers and dust) and the second number specifies liquid protection.

- IP60** Dust tight but not protected against water
- IP64** Dust tight and protected against splashing water from any direction
- IP65** Dust tight and protected against water jets from any direction
- IP67** Dust tight and protected against effects of temporary immersion



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