

# SmartSwitch™

VERSATILE • EFFICIENT • INNOVATIVE



*everything starts here.*

**NIKK**  
SWITCHES

A close-up photograph of a hand interacting with a complex control panel. The panel is filled with numerous yellow and orange buttons and switches, some of which are labeled with text like 'M/E PV' and 'M/E PWR'. The background is dark and out of focus, suggesting a control room or a specialized workstation. The lighting is dramatic, highlighting the textures and colors of the buttons.

Switches that  
*make you smarter*

The NKK SmartSwitch™ is unlike any traditional switch in today's market. It dramatically improves the human-machine interface and is an innovative yet simple solution for complex decision making environments.

# Greatly Improve Your Products' Ease of Use for Operators

The NKK SmartSwitch is a pushbutton switch that enables designers to create clear paths in complex decision making environments using intuitive and programmable custom menus. This enhanced decision-making capability provides a significant upgrade in the ease-of-use for operators giving more accurate guidance to complete their tasks.

NKK's SmartSwitch increases efficiency by reducing the time to train operators while delivering a significant reduction or elimination of operator errors. The SmartSwitch also has a wide viewing angle and can be seen from a distance allowing operators to quickly see any changes in their critical environments.

## Significant Gains in Cost Reduction and Maintenance Efficiency

Using NKK's SmartSwitch, a power plant managed a control panel with 1,600 different traditional switches. The control panel was redesigned to incorporate less than 65 LCD programmable devices; as a result, the power plant operator was able to access the same 1,600 functions greatly reducing panel space and hardware costs.

## SmartSwitch vs. Traditional Switches

As the demand rises for greater functionality, space savings and long term ROI, the use of traditional switches in certain applications may not be an option. OLED and LCD programmable devices simplify control panels, utilize less space and give an unprecedented amount of flexibility at any time.

## Top 5 Reasons

1. Simplify Complex Decision Making Environments
2. Increase and Change Panel Functions Instantly
3. Achieve Innovative Designs with Fewer Devices and Less Inventory
4. Reduced Training Time and Operator Errors
5. Programmable for Multiple Languages

# The right switch

Although NKK offers a wide selection of off-the-shelf OLED and LCD SmartSwitch devices and development kits, we are proud that many of our product innovations come from working directly with our customers to develop custom switch devices that bring their applications to life.

SmartSwitch development kits and a wide variety of accessories are available to assist engineers with rapid prototyping.

|                 |   |   |   |  |
|-----------------|---|---|---|--|
| OLED ROCKER     |   | <ul style="list-style-type: none"> <li>• IP64 Dust and Water Protection</li> <li>• SP3T Momentary</li> <li>• Monochrome Long Life Display</li> <li>• Snap-In Mount</li> <li>• 180° Viewing Angle</li> <li>• Controller on Board/SPI</li> </ul>  | 37.9 x 50.7 x 5.6mm   | <p><b>Display Life:</b><br/>52,000 hrs. @ 100cd/m<sup>2</sup><br/>with 30% pixels on</p> <p><b>Operating Temperature:</b><br/>-20°C to +70°C</p> <p><b>Mechanical/Electrical Life:</b><br/>1,000,000 actuations min.</p> |
| OLED PUSHBUTTON |  | <ul style="list-style-type: none"> <li>• Sharp Display of Text, Graphics and Video</li> <li>• Exceptional Contrast</li> <li>• Video Displays at 100+ Frames/Sec</li> <li>• 180° Viewing Angle</li> <li>• Controller on Board/SPI</li> <li>• Low Power Consumption</li> <li>• 3D Compatible</li> </ul> | <p><b>Pushbutton:</b><br/>23.13 x 20.59 x 23mm</p> <p><b>Display:</b><br/>17.8 x 17.2 x 9.9mm</p>   | <p><b>Display Life:</b><br/>60,000 hrs. @ 50cd/m<sup>2</sup> with<br/>40% pixels on</p> <p><b>Operating Temperature:</b><br/>-20°C to +70°C</p> <p><b>Mechanical/Electrical Life:</b><br/>3,000,000 actuations min.</p>  |
| LCD 64 x 32     |  | <ul style="list-style-type: none"> <li>• Available in 2 Sizes (Compact 28% Smaller)</li> <li>• RGB LED Backlight</li> <li>• Controller on Board/SPI</li> <li>• Low Power Consumption</li> <li>• 3D Compatible</li> <li>• Sunlight Readable</li> </ul>   | <p><b>Pushbutton:</b><br/>23.13 x 20.59 x 23mm</p> <p><b>Compact Pushbutton:</b><br/>9 x 18 x 23mm</p> <p><b>Display:</b><br/>17.8 x 17.2 x 9.9mm</p> | <p><b>Operating Temperature:</b><br/>-15°C to +50°C</p> <p><b>Mechanical/Electrical Life:</b><br/>3,000,000 actuations min.<br/>1,000,000 actuations min.<br/>(Compact)</p>  |
| LCD 36 x 24     |  | <ul style="list-style-type: none"> <li>• Single, Bicolor or RGB Backlight</li> <li>• Available in 2 Sizes (Compact 28% Smaller)</li> <li>• LCD Driver on Board</li> <li>• 3D Compatible</li> <li>• Sunlight Readable</li> </ul>   | <p><b>Pushbutton:</b><br/>23.13 x 20.59 x 23mm</p> <p><b>Compact Pushbutton:</b><br/>9 x 18 x 23mm</p> <p><b>Display:</b><br/>17.8 x 17.2 x 9.9mm</p> | <p><b>Operating Temperature:</b><br/>-20°C to +60°C</p> <p><b>Mechanical/Electrical Life:</b><br/>1,000,000 actuations min.</p>  |

# for you

“When Micro Systems redesigned a portable command and control system, we knew the system would also have to be extremely durable and live up to the standards of our customers – there is no tolerance for equipment malfunction. Competitive solutions weren’t a good fit as we felt the quality was not suited for our applications. NKK had the best quality solution.”

MAYNARD FACTOR • MICRO SYSTEMS



“To me, NKK stands for great quality and great service. They offer a lot of value added capabilities, which is very helpful. Most important, they do what they say they are going to do. That means a lot, especially when you consider that they are one of the largest switch manufacturers in the world.”

JULIE CARR • THE MACINNIS CO.

Applications as unlimited as  
*your imagination*



NKK Switches has a long history of leadership and advanced innovation through insights shared by our best partners—our customers.

*"We switched to NKK Switches 25 years ago and have never looked back. They're just that good. I'm convinced no other company makes switches good enough to stand up to our customers and the places they take our equipment."*

**RON MEYER • PROFESSIONAL SOUND CORPORATION**

*"In my mind, NKK's claim to fame is the quality of their products. For as far back as I can remember, and probably for as far back as we've been associated with NKK, we have not had a single quality-related issue arise with their products. That speaks volumes considering how long we've been working with NKK."*

**FRED SCHNIEDER • EAS SALES/A MEL FOSTER CO.**

*"One of NKK's greatest strengths as a company is its people. They're fun to talk to, easy to work with and they're quick to respond. Add to this NKK's broad product offering and you've got a home run."*

**KEITH LYALL • HEILIND**

# Partner with **NKK Switches**

With more than half of a century of passion for innovation, NKK has continued to elevate the standard for switch solutions while maintaining an unwavering emphasis on quality, stability, and reliability.

When you partner with NKK, you can expect your switch will be an exact fit to your unique requirements. NKK Switches has become a leader in the industry by providing the most reliable products together with the highest level of technical support and expertise.

## Why Partner with Us?

- Switch Versatility
- Product Reliability
- Industry-Leading Support
- Dedicated to Innovation

## Easy to Get Started—Now.

NKK's SmartSwitch significantly improves efficiency and ROI in many different applications and markets. No matter if your design requires a standard or custom device NKK has the flexibility, expertise and skills to help engineers design applications that touch our lives every day.

Visit [www.nkkswitches.com](http://www.nkkswitches.com) to download all of the specs and tools you will need to prototype your design.



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SWITCHES

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