

NKK NEWS

NKK
SWITCHES

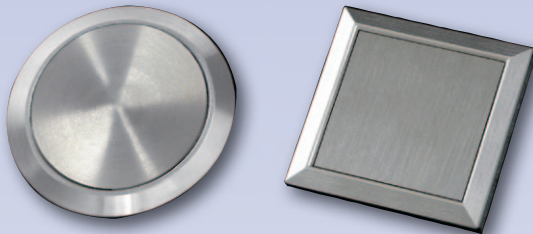
2012 Spring



New product : To be announced in Summer 2012

Stainless Texture Bezel/Button YB2 Series

Provides a Metallic texture and Hairline Finish! Fulfill a High-Grade Panel Design!



- ✓ Fulfill a refined hairline finish
- ✓ The above-panel dimension 1.8mm is the shortest class in the market*
- ✓ Improved weatherproofing to protect against UV rays, etc.
- ✓ IP65 Splashproof

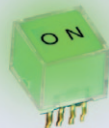
*Splashproof-Type shortest dimension product: Based on an In-House study conducted on March 14, 2012

New Bicolor Alternating Legends Button NP01/UB2 Series

Blue and Amber have been added, further expanding color and series variations!*



- ✓ Changing Displays by color illumination
- ✓ Reasonably priced



NP01



KP01/KP02



UB



UB2

*Custom product required depend on configuration.

Socket for LP01/YB/YB2 Series

One-Touch Wiring!



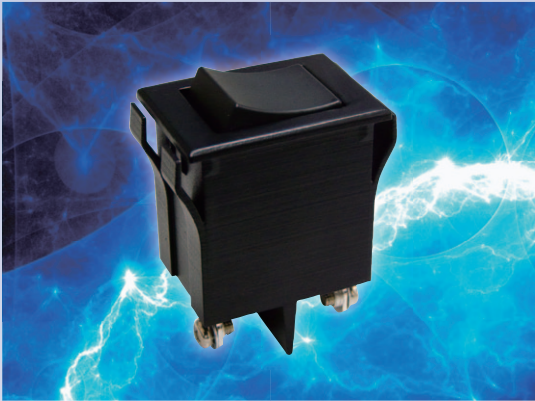
- ✓ Contributes to more efficient wiring work
- ✓ Anti-extract structure for safety
- ✓ Solder Lug/PC terminal
- ✓ A wide-application

※ Please note that all specifications listed are subject to alteration without notice. For information regarding the latest specifications please contact a NKK Switches representative.

New product : To be announced in Autumn 2012

High-Voltage Rocker Switch exclusively for DC

Through the usage of our original structural elements even strong arcs are reliably extinguished!



Photograph of an actual arc



- ✓ Fulfill small body loaded with NKK original structural elements
- ✓ Improved arc extinction capabilities
- ✓ Travelling speed stabilizer
- ✓ Insulated structure for safety

《Specifications》

Pole and Throw: SPST

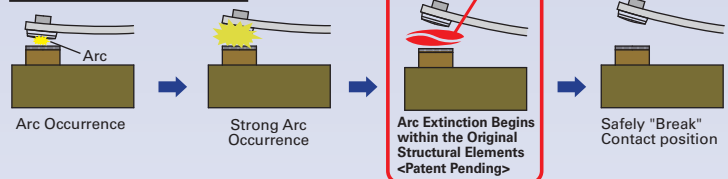
Functional Operation: ON-OFF

Terminal: Screw Lug (M4)

Ratings: DC420V 15A (High-Capacity Type)

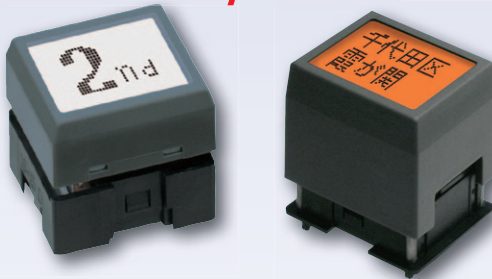
DC420V 5A (Mid-Capacity Type)

Immediate arc extinction after its occurrence

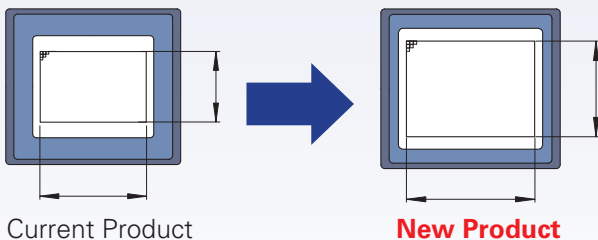


Wide-View Multi-Function Push Button Switch IS Series

Narrow Frame, Big Screen! Excellent Visibility! Display Area Increased by 155%! *



Example: Standard IS/Switch (Display Area Comparison)



- ✓ More Clearly and more vivid
- ✓ The pursuit of visibility in a tiny body

Series	Type	LCD	Backlight
Standard	Switch	Monochrome	White (Super Bright)
			Green/Amber (Super Bright)
			Amber (Super Bright)
			Red/Green (Super Bright)
			Red/Green (Bright)
	Display Module	Monochrome	Green/Amber (Super Bright)
High Resolution Compact	Switch	Monochrome	Amber (Super Bright)
			Red/Green (Super Bright)
	Display Module	Monochrome	Red/Green (Super Bright)

*Standard IS In-House Comparison

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Many of our customers have adopted the "OLED Display Color IS," a product that includes unique NKK technologies. VIDELCO is a company that has made actual use of this product. Here they will describe in their own words their thoughts on topics such as the reasoning behind using the product.

Usage Example

OLED Display Color IS

VIDELCO Europe Limited / Germany

Utilized in the Media-Controller

Mr. Mike Waldeyer Technical Director



NKK OLED Display Color IS

What was the reason for using OLED Color IS?

During design phase of the interface modules I was looking for keys that would be able to show a thumbnail or video preview of a media server. So I have been searching for the right solution but first only found LCD key with RGB LED backlights. During a visit of a sales person at NKK distributor regarding the thumbwheels we chose as analog input module he showed me the OLED Color IS from NKK and I was excited about the product. So I started a complete redesign of our PCBs to adopt this technology.

Now we had the wanted solution.

What did it take to make it a commercial reality?

It was a big turning point when having the first video running on an OLED key. That was the biggest step and first time we were able to verify that our decision to change our design to use the OLED Color IS was a right thing to do.

What did you think about OLED Color IS after your product was actually finished?

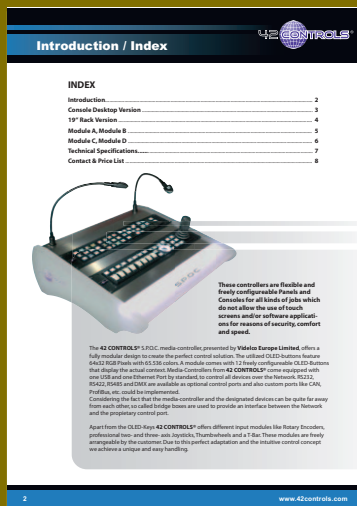
The use of the OLED Color IS offers much more flexibility than our console had before: thanks to the high contrast and relatively large resolution on one key we are now able to show thumbnails, videos, overlaid with many other information like bars, text, small icons. The look and feel is like using nice icons on an operating system, but you have real switch buttons for your tactile feedback. All in all it was the right decision to use OLED Color IS in our products and thanks to NKK we found the right solution.



VIDELCO Profile

VIDELCO Europe Limited www.videlco.eu

VIDELCO is a German company that provides professional audio and video technologies and a wide range of multimedia technologies from major international manufacturers.



The Three Strengths of NKK

Reflecting the voices of our customers we put efforts into three strengths.

NKK has continually walked together with its customers since its establishment more than 60 years ago. We have always worked to refine our capabilities in areas such as quality, technology and delivery in order to be able to answer the varied needs of our customers. The requests and needs of the customer are highly valued by NKK. NKK will advance a "Switch Technology" as a company in line with the expectations of our customers, providing safety, relief, attractive products, and impressive services.

1. The Highest Quality Products

NKK switches pursues the highest level of quality under all conditions. Quality is the level of trust and the leeway of performance above proven endurance levels and specifications. NKK prides itself in its wide range of product items, as well as in its production and sales, and behind every one of its switches is advanced precision technology and know-how cultivated over many years.

NKK's superior quality is at work in a wide range of applications. A large number of products capable of answering the needs of customers have been adopted in areas demanding high quality such as communication equipment, measurement equipment, medical equipment, engineering equipment, construction machinery, and transport vehicles. Combining technology's progress and pace, NKK switches continue to evolve in regards to ever-increasing quality. NKK will continue to provide its customers with safety and relief.

2. Advanced Technology Development

Contacts can be said to be the life of a switch. Starting with the contacts, NKK uses specially selected materials including those for the contacts, the springs, the insulations, as well as special high-performance materials created as a result of many years of development.

Also, by making use of unique precision processing technologies the NKK switches have been making leaps improvements in terms of precision, usability and durability.

New product development teams generally consist of seven or eight staffs, and they are responsible for the unified development process from the base design to mass production and mass product instruction.

The knowledge of specialists is refined through a wide range of experiences ranging from varied experimental research, the acquisition of VE and VA technologies to customer marketing and presentation.

Responding to the diversification of switch functionality, NKK researches advanced technologies even while keeping traditional mechanical technologies as the core. NKK will never cease to relentlessly pursue ever more advanced switching technologies.

Continually thinking a company climate in which the next generation products can be considered, and based on free-thinking, several hundred idea proposals are put forward each year and numerous industrial property rights are applied for. We think that NKK's orientation toward inventiveness are connected to the provision of creative products.

3. On time Delivery

In order to correspond to a speeding up society at the same time addressing high quality and technology, in October 2006 NKK changed over from "built to order" method that it had adopted for fifty years to "built to forecast" method with the goal of speeding up. Since then five years have passed. Making use of the accumulated know-how and areas of improvement that have emerged while operating the planned manufacturing method, it has been decided to adopt a new backbone system from October 2012 in order to "level up" in terms of the added value that comes from increased speed. The new backbone system will be used as its core a method in which past achievements, information about the future, seasonal variations and other delivery attributes are used as a base to plan demand forecasts, making NKK capable of responding to the needs of its customers on time. When receiving inquiries from customers, NKK will be able to quickly provide precise answers in regards to delivery by performing manufacturing simulations through the new backbone system. As a result, customers will be able to better plan out their procurements.



TOP INTERVIEW

NKK NEWS

Interview with Nihon Kaiheiki Ind. Co., Ltd.
President Tomonari Ohashi



and North American markets, I think we will definitely become the number one industrial switch manufacturer in the world. But not only in Japanese and North American markets; we want switches to be equated with NKK and NKK equated with switches all over the world. To that end I also want to make us more significant in the remaining Asian and European markets and aim to completely dominate the world in the area of industrial switches.

—President Ohashi, what kinds of dreams did you have as a child?

These days soccer is a major sport, but when I was a child the sport for boys was baseball. I think half of my classmate was playing baseball. Back then each household only had a single television, unlike today, and it was the father that had the right to select the channel. So the children had to watch whatever program the father chose, and the influential power of the father was thus quite great. My dad was a Giants fan so we always watched Giants games during prime time. That was during the Giants' V9 era, back when Oh and Nagashima were at their peak. Of course, I became a Giants fan too.

It just so happened that the corner I lived on at that time had many kids my age, and right in front of our house was a fairly wide alley that cars didn't drive on. That became our home stadium. When there was some open space we would head out with our bats and gloves. After coming home from school my friends and I were always playing baseball. When my friends weren't around I would use the cemetery wall behind our house to play catch until dusk.

In elementary school I was on a little league team. My position was that of catcher, perhaps because I was so tall. During high school, the pitcher I was teamed with went on to participate in the Koshien Tournament. So my dream for

—Since the founding of Nihon Kaiheiki Ind. Co., Ltd. (NKK) in 1951, it has for more than sixty years been consistently engaged in the switch business. President Ohashi, I think you must have some deep thoughts for switches.

In this world there are many kinds of machines, but there are no machines that are without switches. The switches made by our company are the indispensable means by which people stand before machines and convey their intentions, and it is through these switches that I want us to contribute to society.

The feelings our company has toward switches are manifested as a more than 60 year challenge towards development, and have resulted in the creation of more than three million variations. NKK switches are presently used in all industrial fields including those related to the space equipments, computers, FA, aviation, railroads, shipping, medical equipments, construction, OA, communications, broadcasting, amusement and more. I want to continue to work single-mindedly on switches and take them to even greater heights.

—President Ohashi, please tell me about your dreams for the present.

Of course it would be to become the world's best industrial switch manufacturer. So in other words it is not

to become a large company. I want to put all of our efforts into raising our value in the market by creating the kinds of high value-added switches that only NKK can make, even as a small company.

A company's profits are defined as being the amount that remains after costs have been subtracted from sales. To state this in another way, I think that profits are the value amount paid for being different from other people. In this age of large suppliers stealing small amounts of demand from one another, simply doing what everyone else does will cause you to get caught up in a price competition, leaving nothing for profit. One mustn't be the last survivor while having admitted your own defeat.

At NKK we think deeply about what areas we can become the world's best, and what we can work on with passion. We concentrate more on specialized areas than business expansion. To be trusted by one's customers, to be able to impress one's customers, to be a discriminating and distinctive company; that is the company image we strive to achieve. I believe that the realization of this goal will without fail guide us to the position of "world's best."

From Japan to the world! Next I want to make ourselves more significant in the North American market, being the market that drives the world economy. If we reach the top in both the Japanese

the future was to become a professional baseball player.

—What did you do following that?

Somehow I passed my junior high school examination and entered into an integrated junior high and high school. That school didn't have a baseball club and so I had to give it up.

I was at a loss as to what club activity I should join when my friend invited me to give tennis a try. That's how I began playing tennis. From that time until I graduated university it was tennis, day or night. At university I even worked part-time as a tennis coach. Really, everything I did had something to do with tennis.

At any rate, even today I have a personality that dislikes losing to other people, and when I start something I become extremely committed to it. I might take after my father.

But thinking about it now, I really am glad I played tennis. Tennis is different from baseball in that it only takes two people to play, and it's a sport you can continue to play even after you get older.

—You still play tennis?

After I graduated from university I challenged myself to a number of sports including windsurfing, scuba diving and skiing. Right now I'd say I'm hooked on golf. I started playing tennis again about a year ago at a pace of about once a month with a friend from university days.

When I say "playing tennis," however, I couldn't say for sure whether it's the tennis, the barbecue, or the drinking that is the main event. As we're the same age we bring often our kids along and have fun together as families. At this age I think it's probably best to play tennis in moderation and to rest in moderation.

—What do you want to challenge yourself with in the future?

My principles are those of "absoluteness, perfection, and best-in-the-world." Whatever my will is I make it absolute, perfect and the best in the world. There is a saying in Japanese that

means "action in silence," but I prefer "action in words." If you say you will do something force it to happen, take the whip to yourself, fixate to it and see it through to the end. I think this is the most impressive way for a man to live. Meanings in Japanese are quite vague; for example in Japanese there is a phrase that translates to "increase something a great deal." Is one or ten a great deal, or is one hundred? One cannot know for sure.

I think that people are weak animals that become pleased with themselves when they have only increased that hypothetical "something" by ten, even though they were supposed to increase it by one hundred; all because the vague term "increase something a great deal" was used. I think that if you were ordered it by one hundred you have to do it by one hundred, and if you were ordered it by one thousand you have to do it by one thousand. Otherwise it is meaningless.

In expressing one's will I think it is important to pursue one's own self and to see one's words completed to perfection. I have expressed my vision for NKK as the world's best industrial switch manufacturer. With "absoluteness, perfection, and best-in-the-world" as my creed, I think that it is my mission, I who have received life within this world, to continue to challenge myself to realizing that vision.

While it is obvious considering we are a manufacturer, the eternal issue for us is the challenge to manufacture. Japan developed as far as it did through manufacturing, but somehow we have become too affluent. I feel the pleasure that came from making the things that were constructed by the Japanese up to this point has been blown away. Personally I want to revitalize Japan as a manufacturing nation, and show the world our mettle once again. Within this context NKK may be limited in what it can do, but I would like for us to practice



a kind of manufacturing that gives more attention to detail now than it ever has before, and to challenge ourselves to impress the world with the ideas emerging from Japan.

—To conclude, please give a message to your customers.

I don't think this is an era of seeking out sales. I think the keywords to developing a company are that of being particular and taking things to the next level.

I want us at NKK to be particular about switches, to take switches to their highest level, and to continue to challenge ourselves single-mindedly, so that we will be referred to as the master craftsmen of switches. Even under diverse conditions, with quality coming first we want to assist and answer the needs of both our Japanese and worldwide customers as a switch company that provides safer, more reliable, and creative man-machine interfaces.

"Even a small grain of pepper is spicy." So as to not be beaten by our management philosophy of "Great Small Company," we hope to work to become a company that has a sense of presence while being small. Thank you, and we look forward to working with all of you.

—Thank you very much.

February 10, 2012

Interviewer

Automation Review

Chief Editor Hiroo Fujii



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