

New Products

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Contact No. 232

NIKK
SWITCHES

VS01 Series DC-Only Compact Switch



NIKK SWITCHES CO., LTD.

These switches concentrate NKK's advanced contact technology and reliable design to achieve HVDC cutoff!

(Patent pending, design registered)

Compact body size

The body size is compact enough to mount in a 19-inch rack, but it is rated for DC420V, 15A (high-capacity type).

Safe Insulation Structure

The insulation structure, compliant with EN61058-1 Class II, ensures safety.

Insulation Cover Provided as Standard

We provide the insulation cover as a standard accessory, to guard against electric shock.

Snap-in Mounting

Panel mounting is by snapping into place, cutting the amount of work required.

Designed With Care to Prevent Misoperation

The slide control was designed to prevent misoperation, with a barrier structure to stop unintentional operation.

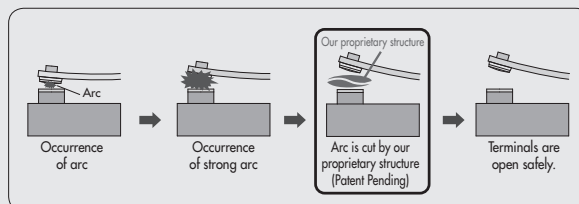
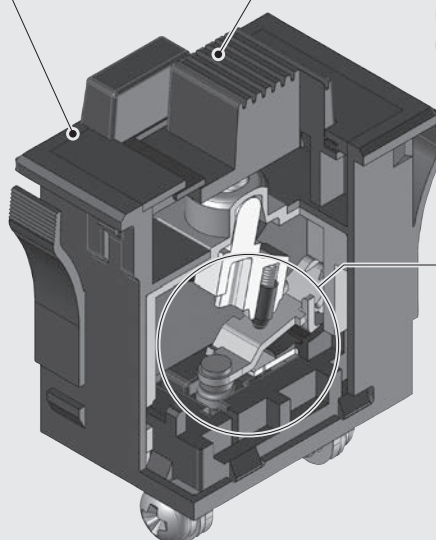
Open/close durability

This unique structure achieves electrical open/close durability for over 10,000 cycles.

We use a unique structure to safely cut off a powerful arc

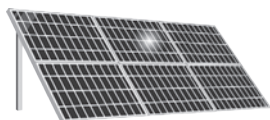
The internal mechanism uses insulation plates that can safely cut off a powerful DC arc. The mechanism opens and closes the contact at a constant speed, regardless of the operation speed. It safely cuts off a DC arc.

The structure does not use magnets, so it is not prone to influence from the surroundings.



► Main applications

Photovoltaic generation systems, server power supplies for data centers, other high-voltage DC control devices



Photovoltaic generation panels



Internet servers

► Sale start date

2014,X, X

► Common specification

Common specification	
Electrical capacity	M type (Medium-capacity type) 5A 420V DC
	L type (Large-capacity type) 15A 420V DC
Contact resistance	20Ω maximum @DC5V, 1A
Insulation resistance	1GΩ minimum@1,000V DC
Dielectric strength	2,000V AC minimum between contacts for 1 minutes minimum
	4,000V AC minimum between contacts and case for 1 minutes minimum
Mechanical life	30,000 operations minimum
Electrical life	10,000 operations minimum
Travel	0.30"
Operation temperature range	-30℃ through +85℃ (-22 °F through +185°F)

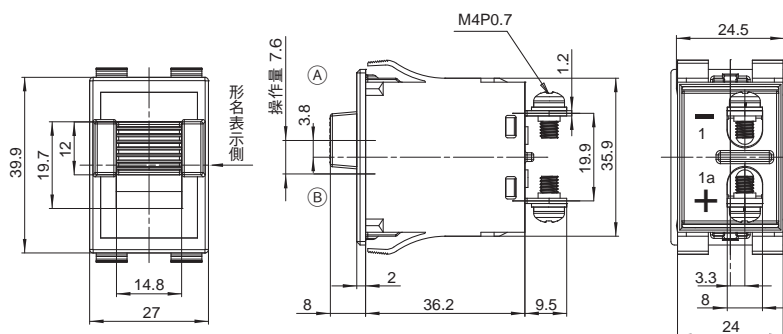
► Typical Switch Ordering Example

Number of poles		Circuits		Current ratings		Display on control parts		Color of control parts		Body color		Terminal form	
1	Single pole	1	ON - OFF	M	DC420V 5A	E	No display	K	Black	K	Black	T1	Screw terminal (silver contact)
				L	DC420V 15A								

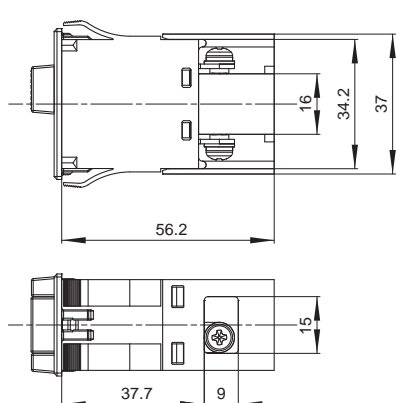
► Function action, external view

Function action		Model name		Contact terminal number	
Operation direction as seen from the side labeled with the model name		M type (Medium-capacity type)	L type (Large-capacity type)	Circuit	
B	A			B	A
OFF	ON	VS01-11MEKKT1	VS01-11LEKKT1	Single pole, single throw	OFF
					1-1a

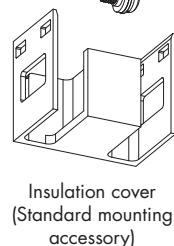
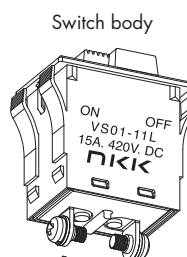
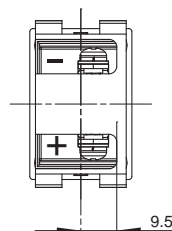
VS01-11LEKKT1



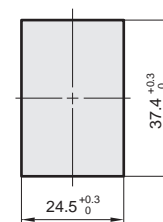
With the insulation cover attached



*Use with the insulation cover attached.



Mounting hole dimension diagram



Mounting panel thickness:
1~4mm

► Reference price

Model name	Reference price
VS01-11MEKKT1	JPY1,594
VS01-11LEKKT1	JPY2,320

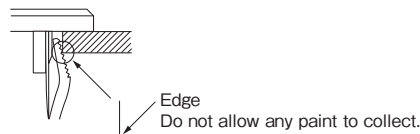
- The stated price is the reference price as of March 4th, 2014.
- The price does not include sales tax. Sales tax will be charged separately.

► Precautions

- Use within the rated voltage and current. Use outside the ratings risks short circuits, fire, etc.
- This product is for use with DC only. It cannot be used with AC.
- Be sure to use the correct terminal polarity. The terminal face on the bottom of the body case of this product is marked with polarity.
Wiring with the wiring terminal polarity will drastically shorten the electric life (to around 1,000).
- The open/close frequency should not exceed 15 times per minute (operate so that there is an interval of at least 4s after each operation).
Continuous open/close operation at high voltage and current could potentially make it impossible to switch off, leading to a major accident.
- This product should be used with crimp terminals attached by screws. If it is used with the terminals directly soldered, there is the risk of abnormal heating inside this product, leading to fire etc.
- When operating the switch, turn the knob all the way to the end. Do not stop turning it midway through its movement.
- Use this product with the insulation cover attached after it is mounted in the panel, and keep safety in mind to avoid electric shocks.
- Use this product in an environment within the operation temperature range, and without condensation.
- Choose crimp terminals at least 0.04" thick to attach to the terminals. If you use crimp terminals less than 0.04" thick, add a washer etc. to make sure the wire is securely fastened. Place the added washers between the washerhead screws provided with the switch, and the crimp terminals, and tighten the screws so that there is direct contact between the crimp terminals and the switch terminals.

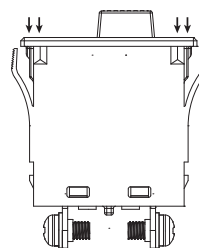
• Panel Cutting

Behind the panel, cut area should be squared. If front of panel is painted, do not allow any paint to collect in corners of cutout to prevent level mounting.



Avoid removing a used switch that was mounted in a panel, and then mounting it back in the panel again.

When attaching a switch to a panel, apply force evenly to both sides of the flange so that it goes into the panel horizontally.



- The structure of this product is not waterproof. Using it in a bad environment causes contact failures.
- If this product is subjected to an excessive dropping impact before it is used, refrain from using it.
- Before choosing a product, check the warranty period, scope of the warranty, limitations of liability, conditions for suitable applications, and specification changes in "Before You Order" in the backs of our catalogs or online.

The company name will change from April 1, 2014.

New company name **NKK SWITCHES CO., LTD.**

New URL and e-mail (from April 1, 2014)
 URL <http://www.nkk.com/> E-mail nkkswitches@nkkswitches.co.jp

* Specifications presented here are subject to change without notice. Check with our staff for the latest specifications.

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