Outline of the Series

This is an ultra-compact switch series designed exclusively for printed circuit boards, available in toggle, rocker, and push-button types.

Features of the Series

1. The occupied PCB area is just 31.5 mm² with straight terminals, enabling highly space-efficient mounting.
2. The sealed construction allows for full-board washing with flux-cleaning solvents.
3. The terminal pitch conforms to the standard 2.54 mm PCB spacing, and square terminals are used.
4. Three terminal types—straight, vertical, and horizontal—are available, allowing flexible mounting orientations.

With an optional Button

Common Specifications

■ Ratings

Voltage	Ratings	Load	Note
AC/DC 28V Max.	0.4VA Max.	Resistive Load	Load only with Resistive, Power Factor=1

* A resistive load refers to a load consisting solely of resistance. In actual circuits, however, there may be inductive, capacitive, or motor loads, each of which can generate inrush current. Therefore, when selecting a switch, be sure to choose a rating with sufficient margin above the steady-state current.
For more details, please refer to "Useful Advices and Precautions on Usage of Operational Switches."

Contact Resistance	80 mΩ Max. (DC2V 10mA) (Initial value)
Withstanding Voltage	AC500V 1 Minute
Insulating Resistance	500MΩ Min. (DC500V)
Electrical Life	50,000 times ※ ON-<ON>Type is 10,000 times
Operating Temperature Range	-20℃～ +80℃
Storage Temperature Range	-20℃～ +80℃
Hand-soldering Conditions	400℃ within 4±1 sec.
Flow Soldering Conditions	265±5℃ within 10 sec.

Packaging Quantity	
PCB Straight Terminal	100 pcs
PCB Vertical Terminal	50 pcs
PCB Horizontal Terminal	25 pcs

Specifications of Materials	
Part Name	Materials
Case	PPS
Operational-part	PPS
Frame	PA
Fixed Plate (Fixed Contact)	Copper Alloy
Movable Plate (Movable Contact)	Copper Alloy
Coil Spring	Piano Wire
Button	PA

* For products other than those listed above or for custom items, please contact us.

Product Designations

Series Name	Operational-part Type	Switch Functions	Type of Terminals	
N	P	C	1	2

Operational-part	Symbol
Pushbutton	P

SwitchFunctions			Symbol	
Initial Position		When the button is pushed	SP	DP
OFF	-	<ON>	C	M
ON	-	<ON>	F	

< > = Momentary

Type of Terminals	Symbol
PCBStraight Terminal	12
PCBVertical Terminal	22
PCBHorizontal Terminal	32

* Type of Terminals Symbol is not indicated on the body.

Optional Button	
Black	9805-8494

* Inquire us if you require colors except black.

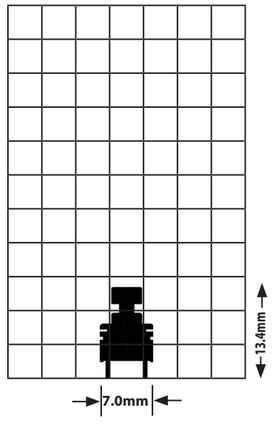
■ Examples of Terminal Figures

PCB Straight Terminal
(DP OFF-<ON>)

PCB Vertical Terminal
(DP OFF-<ON>)

PCB Horizontal Terminal
(SP OFF-<ON>)

Silhouette (NPC12)



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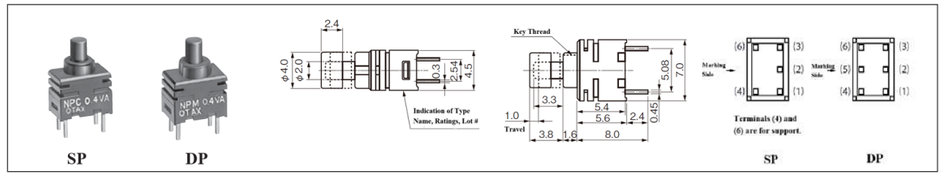
Pushbutton
N Series
0.4VA Max. AC/DC 28V Max.
PCB Terminal Straight Vertical Horizontal
SP 2P

Switch Names, Functions, Terminal Diagram, PCB Holes Diagram

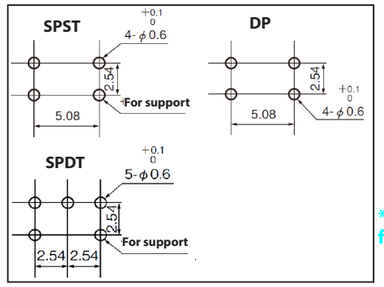
PCB Straight Terminal

Product Name	Circuit	Functions <> = Momentary	
		Initial Position	When the button is pushed
NPC12	SPST	OFF	‹ON› 3-1
NPF12	SPDT	ON 2-3	‹ON› 2-1

Product Name	Circuit	Functions <> = Momentary	
		Initial Position	When the button is pushed
NPM12	2 PolesST	OFF	‹ON› 3-1 6-4



❖ Terminal Numbers are not displayed on the case.

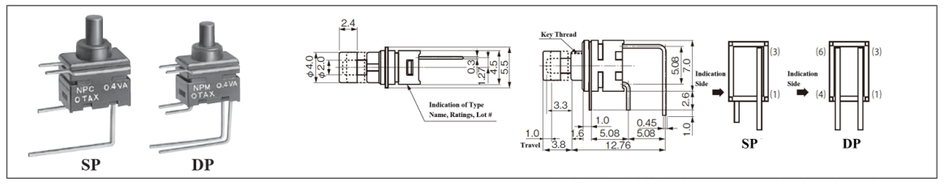


* The case is common both for SP and DP.

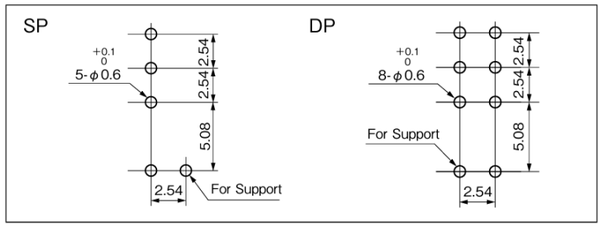
PCB Vertical Terminal

Product Name	Circuit	Functions <> = Momentary	
		Initial Position	When the button is pushed
NPC22	SPST	OFF	‹ON› 3-1
NPF22	SPDT	ON 2-3	‹ON› 2-1

Product Name	Circuit	Functions <> = Momentary	
		Initial Position	When the button is pushed
NPM22	2 PolesST	OFF	‹ON› 3-1 6-4



❖ Terminal Numbers are not displayed on the case.



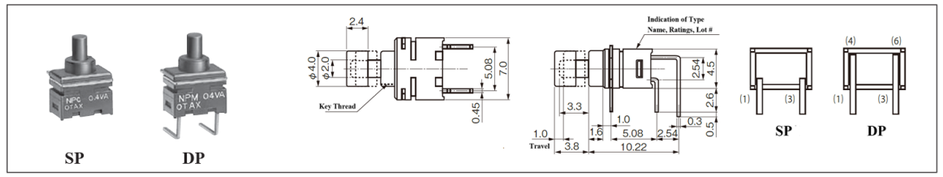
❖ The Case is common both for SP and DP.

* For products other than those listed above or for custom items, please contact us.

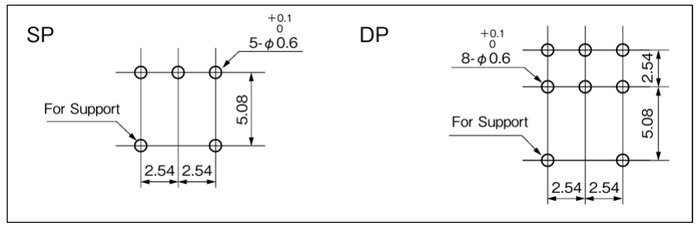
PCB Horizontal Terminal

Product Name	Circuit	Functions <> = Momentary	
		Initial Position	When the button is pushed
NPC32	SPST	OFF	‹ON› 3-1
NPF32	SPDT	ON 2-3	‹ON› 2-1

Product Name	Circuit	Functions <> = Momentary	
		Initial Position	When the button is pushed
NPM32	2 PolesST	OFF	‹ON› 3-1 6-4

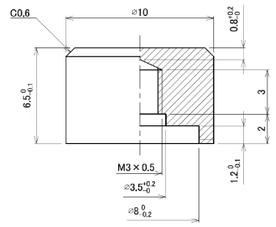


❖ Terminal Numbers are not displayed on the case.



❖ The Case is common both for SP and DP.

Optional Button



Cautions on Handling

1. Alcohol-based cleaning agents can be used.
2. Thanks to the sealed construction, full-board washing is possible; however, please verify the cleaning conditions in advance under your actual usage environment.

Compliance with the European RoHS Directive

All DIP switches, control switches, connectors, and terminal blocks manufactured by OTAX with the following RoHS Directive:

Directive 2011/65/EU of the European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS).

Our products do not contain any of the ten specified hazardous substances (except for exempted applications):

Lead (Pb) Mercury (Hg) Cadmium (Cd) Hexavalent chromium (Cr^{6+}) Polybrominated biphenyls (PBB) Polybrominated diphenyl ethers (PBDE) Di(2-ethylhexyl) phthalate (DEHP) Butyl benzyl phthalate (BBP) Dibutyl phthalate (DBP) Diisobutyl phthalate (DIBP)

* For products other than those listed above or for custom items, please contact us.