

SW3833 Datasheet



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DiGi Electronics Part Number	SW3833-DG
Manufacturer	NKK Switches
Manufacturer Product Number	SW3833
Description	SWITCH ROCKER 3PDT 30A 125V
Detailed Description	Rocker Switch 3PDT 30A (AC/DC) 125 V Panel Mount, Flange

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Purchase and inquiry

Manufacturer Product Number:

SW3833

Series:

SW

Mounting Type:

Panel Mount, Flange

Switch Function:

On-Off-On

Voltage Rating - AC:

125 V

Actuator Type:

Concave (Standard V)

Actuator Marking:

No Marking

Illumination Voltage (Nominal):

-

Ingress Protection:

-

Panel Cutout Dimensions:

-

Approval Agency:

CSA, UL

Electrical Life:

25,000 Cycles

Manufacturer:

NKK Switches

Product Status:

Active

Circuit:

3PDT

Current Rating (Amps):

30A (AC/DC)

Voltage Rating - DC:

30 V

Color - Actuator/Cap:

White

Illumination Type, Color:

-

Termination Style:

Screw Terminal

Features:

-

Operating Temperature:

-10°C ~ 70°C

Mechanical Life:

50,000 Cycles

Base Product Number:

-

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8536.50.9065

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

GENERAL SPECIFICATIONS FOR SW3000s

Toggles

Rockers

Pushbuttons

Illuminated PB

Programmable

Keylocks

Rotaries

Slides

Tactiles

Tilt

Touch

Indicators

Accessories

Supplement

Electrical Capacity (Resistive & Inductive Load)**Power Level:** Shown in the following tables**Other Rating**

Contact Resistance: 10 milliohms maximum
Insulation Resistance: 1,000 megohms minimum @ 500V DC
Dielectric Strength: 2,000V AC minimum for 1 minute minimum
Mechanical Life: 30,000 operations minimum
Electrical Life: 10,000 operations minimum
Angle of Throw (α): Shown on drawings or following tables

Materials & Finishes

Rocker: Urea resin; all rockers are white.
Mounting Frame: Steel with chromate plating over zinc plating
Case Cover/Insulator: Phenolic resin
Case: Melamine phenol
Movable Contactor Plate: Copper with silver plating
Movable & Stationary Contacts: Silver alloy plus copper with silver plating
Terminals: Copper with tin plating

Environmental Data

Operating Temperature Range: -10°C through $+70^{\circ}\text{C}$ ($+14^{\circ}\text{F}$ through $+158^{\circ}\text{F}$)
Sealing: Dustproof cover of silicone rubber on SW3006A, SW3007A, & SW3008A
Humidity: 90 ~ 95% humidity for 96 hours @ 40°C (104°F)
Vibration: 10 ~ 55Hz with peak-to-peak amplitude of 1.5mm traversing the frequency range & returning in 1 minute; 3 right angled directions for 2 hours
Shock: 50G (490m/s^2) acceleration (tested in 6 right angled directions, with 5 shocks in each direction)

Installation

Maximum Panel Thickness: Shown with following drawings
Soldering Time & Temperature: Manual Soldering: See Profile A in Supplement section.

Standards & Certifications

UL: **File No. E44145 - Recognized only when ordered with marking on switch.**
 Add "/U" or "/CUL" to end of part number to order UL recognized switch.
 UL or cULus recognition designated beside part numbers on following pages.
 See Supplement section to find UL or cULus rating details.

CSA: **File No. 023535_0_000 - Certified only when ordered with marking on switch.**
 Add "/C" to end of part number to order CSA certified switch.
 CSA certification designated beside part numbers on following pages.
 See Supplement section to find CSA rating details.

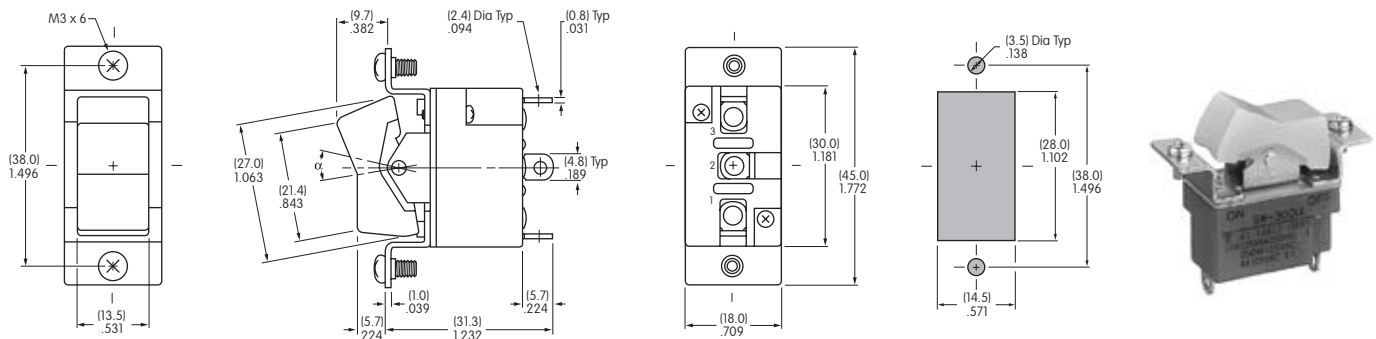
Medium Capacity Rockers

Series SW

SINGLE POLE WITH SOLDER LUG

* UL & CSA recognized only when ordered with marking on switch (see General Specs)		Rocker Position/Connected Terminals						Electrical Capacity					
Model	* Approvals		Pole	Down		Center	Up		Resistive		Inductive	α = Angle of Throw	
									AC 125V	AC 250V	DC 30V		AC 125V PF 0.6
SW3001A	✓	✓	SPST	ON	1-3	NONE	OFF	—	15A	6A	15A	10A	24°
SW3002A	✓	✓	SPDT	ON	2-3	NONE	ON	2-1	15A	6A	15A	10A	24°
SW3003A	✓	✓	SPDT	ON	2-3	OFF	ON	2-1	15A	6A	15A	10A	28°

Throw & Schematics: SPST INTERNAL CONNECTION Note: Terminal numbers are actually on the switch.



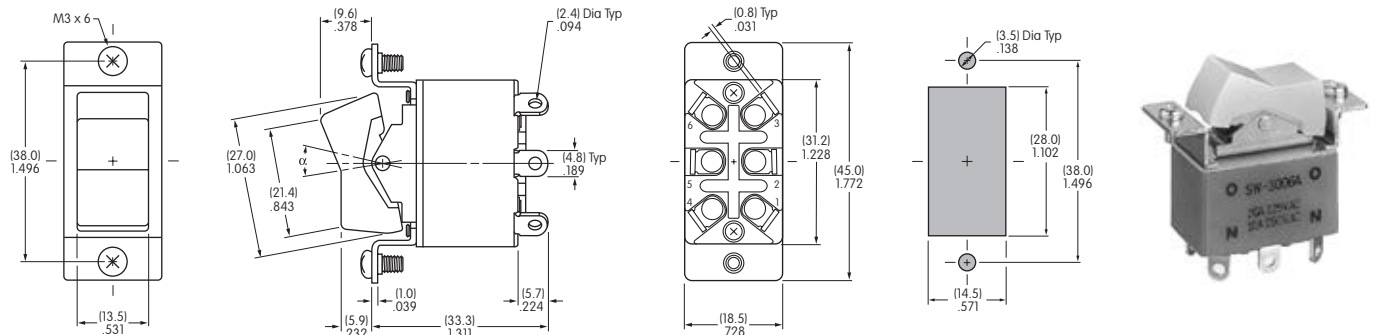
Maximum Effective Panel Thickness:

SW3001A does not have terminal 2. .197" (5.0mm) for SW3001A & SW3002A models; .177" (4.5mm) for SW3003A models **SW3001A**

DOUBLE POLE WITH SOLDER LUG

* UL, cULus & CSA recognized only when ordered with marking on switch (see General Specs)		Rocker Position/Connected Terminals () = Momentary						Electrical Capacity					
Model	* Approvals			Down		Center	Up		Resistive		Inductive	α = Angle of Throw	
									AC 125V	AC 250V	DC 30V		AC 125V PF 0.6
SW3006A	✓	✓	✓	ON	2-3 5-6	NONE	ON	2-1 5-4	20A	10A	20A	10A	24°
SW3007A	—	—	✓	ON	2-3 5-6	OFF	ON	2-1 5-4	15A	6A	15A	10A	28°
SW3008A	—	—	—	(ON)	2-3 5-6	OFF	(ON)	2-1 5-4	15A	6A	15A	10A	24°

Throw & Schematic: DPDT Note: Terminal numbers are actually on the switch.



Maximum Effective Panel Thickness:

.197" (5.0mm) for SW3006A & SW3008A models; .177" (4.5mm) for SW3007A models **SW3006A**

Toggle
Rockers
Pushbuttons
Illuminated PB
Programmable
Keylocks
Rotaries
Slides
Tactiles
Tilt
Touch
Indicators
Accessories
Supplement

GENERAL SPECIFICATIONS FOR SW3800s

Electrical Capacity (Resistive & Inductive Load)

Power Level: Shown in the following tables
 Note: See Supplement section for details of design for inductive DC loads.

Other Ratings

Contact Resistance: 10 milliohms maximum
Insulation Resistance: 1,000 megohms minimum @ 500V DC
Dielectric Strength: 2,000V AC minimum for 1 minute minimum
Mechanical Life: 50,000 operations minimum
Electrical Life: 25,000 operations minimum
Angle of Throw: Shown on following drawings
Nominal Operating Force: 1,800 grams for SW3822
 2,200 grams for SW3823 Off to On
 800 grams for SW3823 On to Off

Materials & Finishes

Rocker: Urea resin; all rockers are white.
Mounting Frame: Steel with chromate plating over zinc plating
Case Cover/Insulator: Phenolic resin
Case: Melamine phenol
Movable Contacts: Copper with silver plating
Stationary Contacts: Silver alloy plus copper with silver plating
Terminals: Brass (terminal screws of brass with nickel plating)

Environmental Data

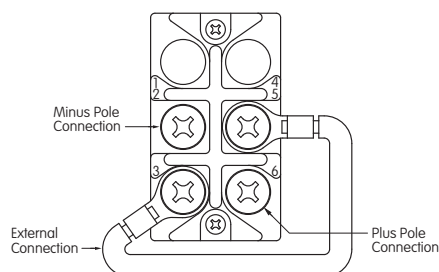
Operating Temperature Range: -10°C through +70°C (+14°F through +158°F)
Humidity: 90 ~ 95% humidity for 96 hours @ 40°C (104°F)
Vibration: 10 ~ 55Hz with peak-to-peak amplitude of 1.5mm traversing the frequency range & returning in 1 minute; 3 right angled directions for 2 hours
Shock: 50G (490m/s²) acceleration (tested in 6 right angled directions, with 5 shocks in each direction)

Standards & Certifications

UL: **File No. E44145 - Recognized only when ordered with marking on switch.**
 Add "/U" or "/CUL" to end of part number to order UL recognized switch.
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 See Supplement section to find UL or cULus rating details.

CSA: **File No. 023535_0_000 - Certified only when ordered with marking on switch.**
 Add "/C" to end of part number to order CSA certified switch.
 CSA certification designated beside part numbers on following pages.
 See Supplement section to find CSA rating details.

Wiring for SW3821D with Electrical Capacity of DC400V 10A



High Capacity Rockers

DOUBLE POLE WITH SCREW LUG

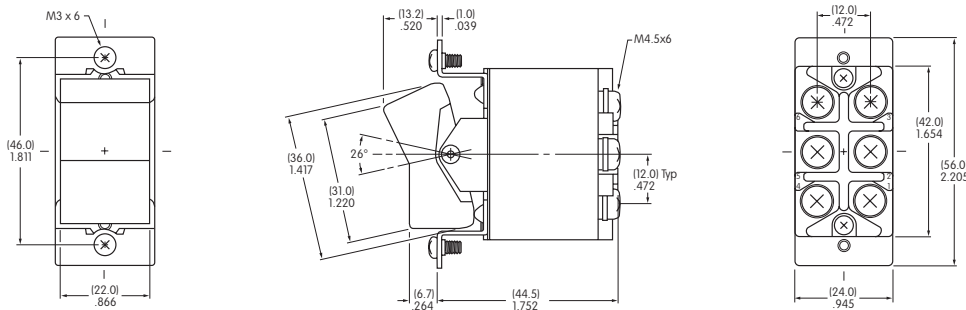
Model	*Approvals UL, cULus, CSA			Rocker Position/Connected Terminals						Electrical Capacity							
				Pole	Down		Center	Up		Resistive				Inductive			
					AC 125V	AC 250V	DC 30V	DC 48V	DC 125V	DC 250V	DC 400V	AC 125V PF 0.6	AC 250V PF 0.6				
SW3821	✓	✓	✓	DPST	ON 2-3	5-6	NONE	OFF —	30A	30A	30A	—	1A	—	—	30A	15A
SW3822	✓	✓	✓	DPDT	ON 2-3	5-6	NONE	ON 2-1 5-4	30A	30A	30A	—	1A	—	—	30A	15A
SW3823	✓	✓	✓	DPDT	ON 2-3	5-6	OFF	ON 2-1 5-4	30A	30A	30A	—	1A	—	—	30A	15A
SW3821D	✓	✓	✓	DPST	ON 2-3	5-6	NONE	OFF —	—	—	30A	30A	20A	15A	4A (10A)	—	—
SW3822D	✓	✓	✓	DPDT	ON 2-3	5-6	NONE	ON 2-1 5-4	—	—	30A	30A	20A	15A	4A	—	—
SW3823D	✓	✓	✓	DPDT	ON 2-3	5-6	OFF	ON 2-1 5-4	—	—	30A	30A	15A	—	—	—	—

Throw & Schematics: DPST DPDT

Note: Terminal numbers are actually on the switch.

* UL/CUL & CSA for the following ratings: UL/CUL: 30A @ 30V DC, 15A @ 125V DC; CSA: 30A @ 30V DC, 15A @ 125V DC

* UL, cULus & CSA recognized only when ordered with marking on switch (see General Specs)
() capacity is due to series wiring, see General Specifications page.



SW3821 & SW3821D do not have terminals 1 & 4.

Maximum Effective Panel Thickness .177" (4.5mm). Panel cutout shown below.

SW3822

THREE POLE WITH SCREW LUG

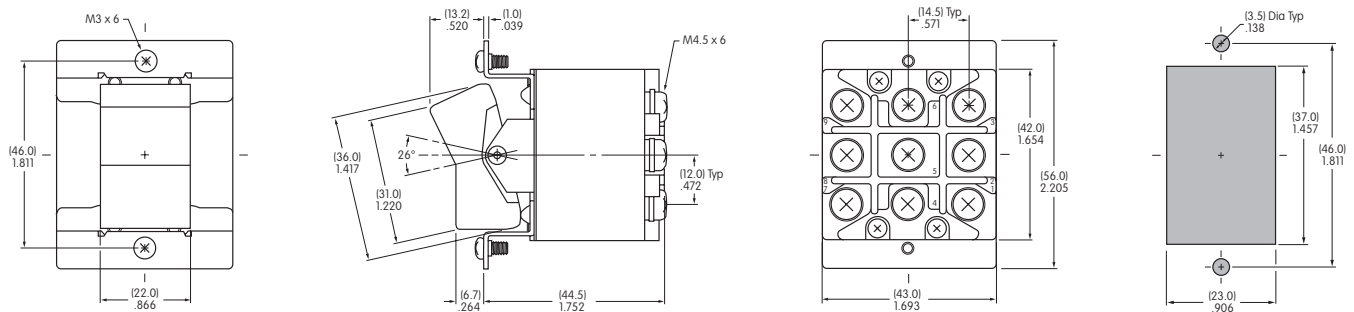
Model	*Approvals UL, cULus, CSA			Rocker Position/Connected Terminals						Electrical Capacity					
				Pole	Down		Center	Up		Resistive				Inductive	
					AC 125V	AC 250V	DC 30V	DC 125V	DC 250V	DC 400V	AC 125V PF 0.6	AC 250V PF 0.6			
SW3831	✓	✓	✓	3PST	ON 2-3	5-6	8-9	NONE	OFF —	30A	30A	30A	1A	30A	15A
SW3832	✓	✓	✓	3PDT	ON 2-3	5-6	8-9	NONE	ON 2-1 5-4 8-7	30A	30A	30A	1A	30A	15A
SW3833	✓	✓	✓	3PDT	ON 2-3	5-6	8-9	OFF	ON 2-1 5-4 8-7	30A	30A	30A	1A	30A	15A
SW3831D	✓	✓	✓	3PST	ON 2-3	5-6	8-9	NONE	OFF —	—	—	30A	15A	—	—
SW3832D	✓	✓	✓	3PDT	ON 2-3	5-6	8-9	NONE	ON 2-1 5-4 8-7	—	—	30A	15A	—	—
SW3833D	✓	✓	✓	3PDT	ON 2-3	5-6	8-9	OFF	ON 2-1 5-4 8-7	—	—	30A	15A	—	—

Throw & Schematics: 3PST 3PDT

Note: Terminal numbers are actually on the switch.

* UL/CUL & CSA for the following ratings: UL/CUL: 30A @ 30V DC, 15A @ 125V DC; CSA: 30A @ 30V DC, 15A @ 125V DC

* UL, cULus & CSA recognized only when ordered with marking on switch (see General Specs)



SW3831 & SW3831D do not have terminals 1, 4 & 7.

Maximum Effective Panel Thickness .177" (4.5mm)

Toggles
 Rockers
 Pushbuttons
 Illuminated PB
 Programmable
 Keylocks
 Rotaries
 Slides
 Tactiles
 Tilt
 Touch
 Indicators
 Accessories
 Supplement

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