

General Specifications

B Electrical Capacity (Resistive Load)

Power Level (silver):	6A @ 125V AC & 3A @ 250V AC 4A @ 30V DC for On-None-On; 3A @ 30V DC for all other circuits
Logic Level (gold):	0.4VA maximum @ 28V AC/DC maximum (Applicable Range 0.1mA ~ 0.1A @ 20mV ~ 28V)
Logic/Power Level (gold over silver):	Combines silver & gold ratings Note: Find additional explanation of dual rating & operating range in Supplement section.

Other Ratings

Contact Resistance:	10 milliohms maximum for silver; 20 milliohms maximum for gold
Insulation Resistance:	1,000 megohms minimum @ 500V DC
Dielectric Strength:	1,000V AC minimum between contacts for 1 minute minimum; 1,500V AC minimum between contacts and case for 1 minute minimum
Mechanical Life:	50,000 operations minimum
Electrical Life:	25,000 operations minimum for silver; 50,000 operations minimum for gold; 50,000 operations minimum for silver at 3A @ 125V AC
Angle of Throw:	25°

Materials & Finishes

Actuator Clip & Mounting Frame:	Stainless Steel
Body Frame:	Stainless steel
Case:	Diallyl phthalate resin (UL94V-0)
Movable Contactor:	Phosphor bronze with silver or gold plating
Movable Contacts:	Silver alloy (code W); copper with gold plating (code G); or silver alloy with gold plating (code A)
Stationary Contacts:	Silver with silver plating (code W); copper or brass with gold plating (code G); or silver with gold plating (code A)
Terminals:	Copper or brass with silver plating; or copper or brass with gold plating

Environmental Data

Operating Temp Range:	-30°C through +85°C (-22°F through +185°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/s ²) acceleration (tested in 6 right angled directions, with 5 shocks in each direction)

Processing

Soldering:	Wave Soldering (PC version) for Gold: See Profile A in Supplement section. Manual Soldering for Gold: See Profile A in Supplement section. Wave Soldering (PC version) for Silver: See Profile B in Supplement section. Manual Soldering for Silver: See Profile B in Supplement section. Note: Actuator must be in OFF (center) position while soldering.
Cleaning:	These devices are not process sealed. Hand clean locally using alcohol based solution.

Standards & Certifications

Flammability Standards:	UL94V-0 for case
UL:	File No. E44145 - Recognized only when ordered with marking on switch. Add "/U" or "/CUL" before first dash in part number to order UL recognized switch. All models recognized at 6A @ 125V AC, 3A @ 250V AC or 0.4VA maximum @ 28V DC maximum.
CSA:	File No. 023535_0_000 - Certified only when ordered with marking on switch. Add "/C" before first dash in part number to order CSA certified switch. All models certified at 6A @ 125V AC or 3A @ 250V AC or 0.4VA maximum @ 28V maximum.

Distinctive Characteristics

Three methods of panel mounting: flat frame for flush with face or subpanel, snap-in, and PCB.

High insulating barriers increase isolation of circuits in multipole devices and provide added protection to contact points.

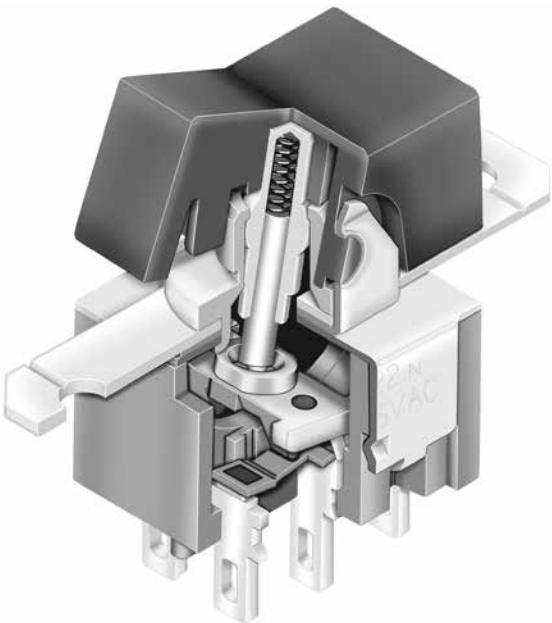
The molded diallyl phthalate case has a UL 94V-0 flammability rating.

Epoxy sealed terminals prevent entry of solder flux and other contaminants.

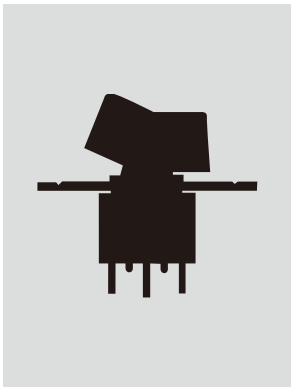
Prominent external insulating barriers increase insulation resistance and dielectric strength.

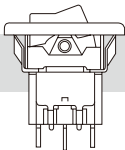
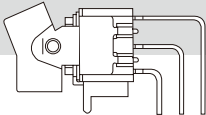
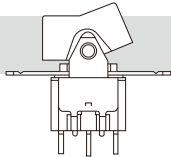
Bias guard prevents misalignment of contacts; interlocking of actuator block with rocker and internal guide does not allow transmission of diagonal force on rocker to reach contact mechanism.

Clinching of the frame to the case well above the base and terminals provides 1,500V dielectric strength.



Actual Size



	Snap-in Mount	Page B64
	Bracket PC Mount	Page B72
	Flat Frame Mount	Page B83

Toggles

Rockers

Pushbuttons

Illuminated PB

Programmable

Keylocks

Rotaries

Slides

Tactiles

Tilt

Touch

Indicators

Accessories

Supplement

TYPICAL SWITCH

M20

1

2

TJ

W

01

—

F

C

Poles	
1	SPDT
2	DPDT SP3T

Mounting Frame	
TJ	Snap-in Frame

Terminals	
01	Solder Lug
02	Quick Connect
03	.250" (6.35mm) Straight PC
05	.425" (10.8mm) Wirewrap
06	.750" (19.05mm) Wirewrap
07	.964" (24.5mm) Wirewrap
08	1.062" (27.0mm) Wirewrap

Rocker & Paddles	
F	.450" (11.43mm) Wide Rocker
G	.450" (11.43mm) Wide Paddle
S	.453" (11.5mm) False Illuminated Rocker in Black only

Circuits			
2	ON	NONE	ON
3	ON	OFF	ON
5	ON	NONE	(ON)
8	(ON)	OFF	(ON)
9	ON	OFF	(ON)
*4	ON	ON	ON
*6	(ON)	ON	(ON)
*7	ON	ON	(ON)

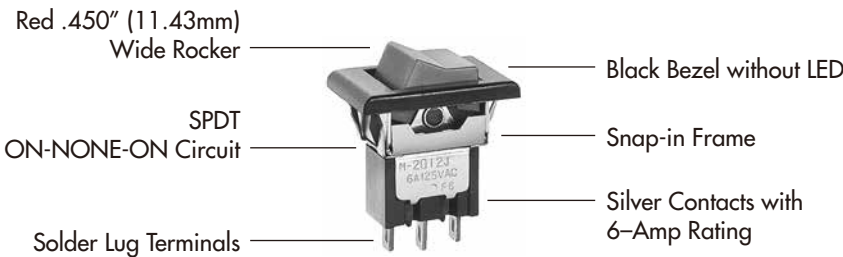
() = Momentary
* 3-ON circuits

Rocker & Paddle Colors	
A	Black
B	White
C	Red
E	Yellow
F	Green
G	Blue
H	Gray

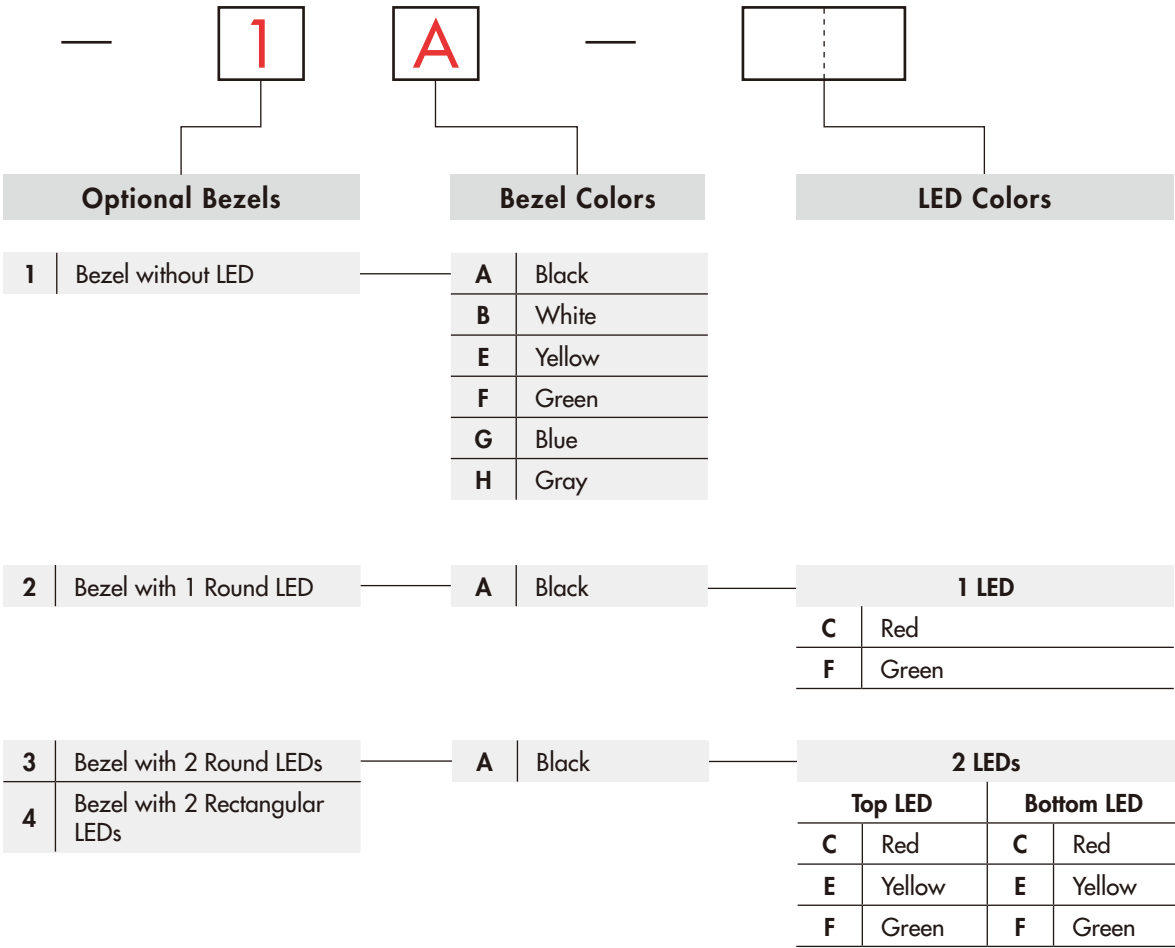
Contact Materials & Ratings	
W	Silver; Rated 6A @ 125V AC & 3A @ 250V AC
G	Gold; Rated 0.4VA max @ 28V AC/DC max
A	Gold over Silver; Rated 6A @ 125V AC & 0.4VA max @ 28V AC/DC max

DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

M2012TJW01-FC-1A



ORDERING EXAMPLE



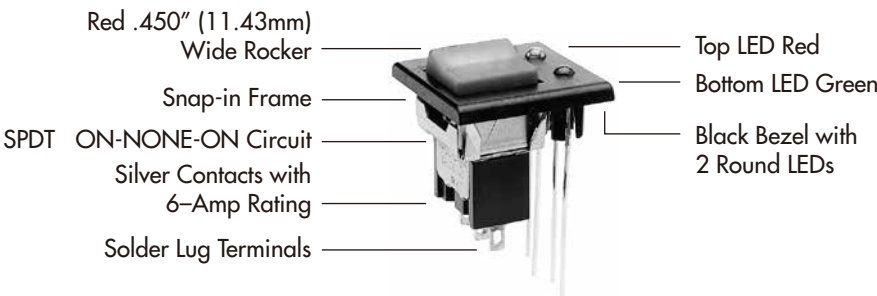
IMPORTANT:



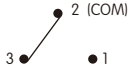

Switches are supplied without UL, cULus & CSA marking unless specified.
UL, cULus & CSA recognized only when ordered with marking on the switch.
Specific models, ratings, & ordering instructions are noted on the General Specifications page.

DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

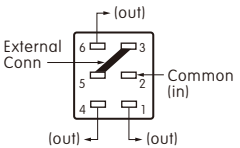
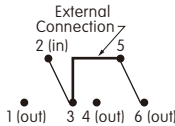
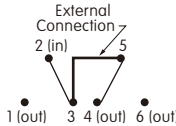
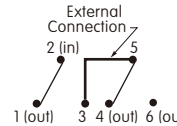
M2012TJW01-FC-3A-CF



POLES & CIRCUITS

Pole	Model	Rocker Position () = Momentary			Connected Terminals			Throw & Schematics
		Down	Center	Up	Down	Center	Up	
SP	M2012	ON	NONE	ON				SPDT 
	M2013	ON	OFF	ON				
	M2015	ON	NONE	(ON)	2-3	OPEN	2-1	
	M2018	(ON)	OFF	(ON)				
	M2019	ON	OFF	(ON)				
DP	M2022	ON	NONE	ON				DPDT 
	M2023	ON	OFF	ON				
	M2025	ON	NONE	(ON)	2-3 5-6	OPEN	2-1 5-4	
	M2028	(ON)	OFF	(ON)				
	M2029	ON	OFF	(ON)				

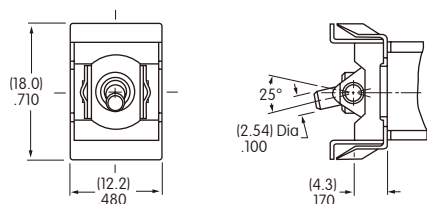
For 3 Throw (3-On)

		Connected Terminals & Schematic			External Connection
Pole	Model	Down	Center	Up	
SP	M2024	ON	ON	ON	The SP3T model utilizes a double pole base. External connection must be made during field installation. 
	M2026	(ON)	ON	(ON)	
	M2027	ON	ON	(ON)	
		 2-3 5-6	 2-3 5-4	 2-1 5-4	

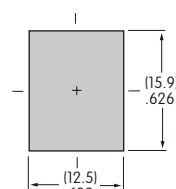
MOUNTING FRAME



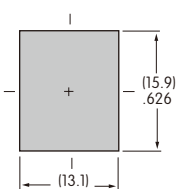
Snap-in Frame



Panel Cutout for
Single Pole
without Bezel



Panel Cutout for
Double Pole
without Bezel



Panel Thickness without Bezel: .039" ~ .126" (1.0mm ~ 3.2mm)
 Panel Thickness with Bezel: .039" ~ .098" (1.0mm ~ 2.5mm)

CONTACT MATERIALS & RATINGS



Silver over Silver

Power Level

6A @ 125V AC & 3A @ 250V AC



Gold over Brass or Copper

Logic Level

0.4VA maximum @ 28V AC/DC maximum

Note: See Supplement section to find complete explanation of operating range.



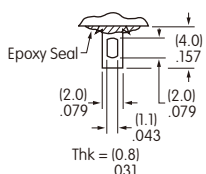
Gold over Silver

Power Level
or Logic Level6A @ 125V AC
or 0.4VA maximum @ 28V AC/DC maximum

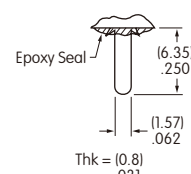
Note: This dual rated option is suitable when two or more identical switches are used in logic and in power circuits within the same application. See Supplement section to find complete explanation of dual rating and operating range.

TERMINALS

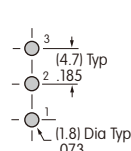
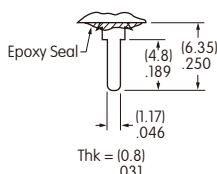
01 Solder Lug



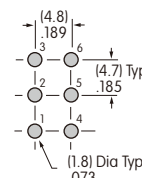
02 .062" (1.57mm) Wide Quick Connect



03 .250" (6.35mm) Straight PC



Single Pole



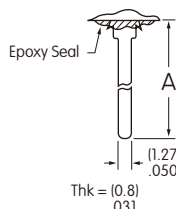
Double Pole

05 .425" (10.8mm) Wirewrap or Extended PC

06 .750" (19.05mm) Wirewrap or Extended PC

07 .964" (24.5mm) Wirewrap or Extended PC

08 1.062" (27.0mm) Wirewrap or Extended PC



If using as extended PC terminal, refer to the above footprints.

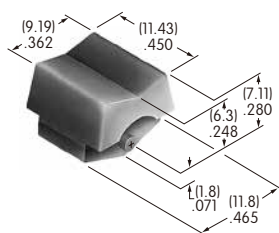
Dimension A = terminal lengths as shown beside the terminal codes at the left.

ROCKERS & PADDLES

F AT4150 .450" (11.43mm) Wide Rocker

Material: Polyamide
Finish: Matte

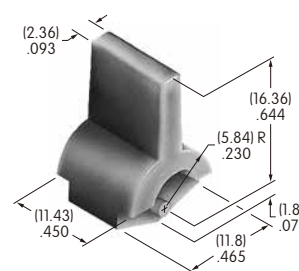
Colors Available:
A, B, C, E, F, G, H



G AT4151 .450" (11.43mm) Wide Paddle

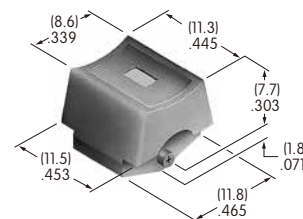
Material: Polyamide
Finish: Matte

Colors Available:
A, B, C, E, F, G, H



S AT466 .453" (11.5mm) False Illuminated Rocker

	<u>Rocker</u>	<u>False Illuminator</u>
Material:	Polycarbonate	Acrylonitrile Butadiene Styrene
Finish:	Glossy	
Colors:	Black	White and Red



When a bezel is selected with AT466, glossy polycarbonate AT207 is supplied.

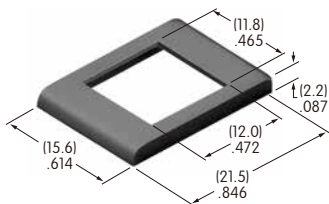
Cap Colors Available: **A** Black **B** White **C** Red **E** Yellow **F** Green **G** Blue **H** Gray

OPTIONAL SNAP-IN BEZELS & BEZEL COLORS

1 AT2107 Bezel

Material: Polyamide

Finish: Matte



A

Black

F

Green

B

White

G

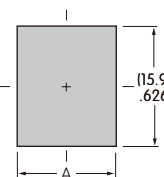
Blue

E

Yellow

H

Gray



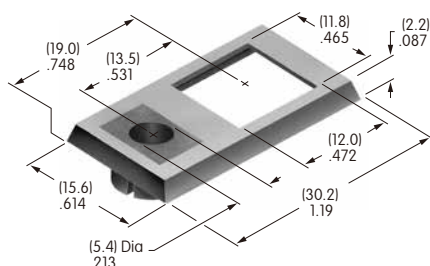
	Single Pole	Double Pole
A	(12.5)mm .492"	(13.1)mm .516"

2 AT208 Bezel for AT070 LED

Material: Polycarbonate

Finish: Glossy

Contact factory for matte finish.

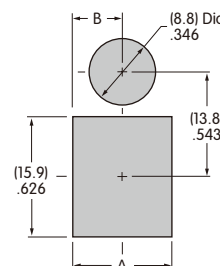


A

Black

LED colors & specifications on next page.

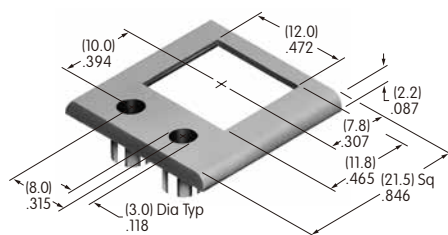
	Single Pole	Double Pole
A	(12.5)mm .492"	(13.1)mm .516"
B	(6.25)mm .246"	(6.55)mm .258"



3 AT212 Bezel for AT617 LED

Material: Polycarbonate

Finish: Semi-glossy

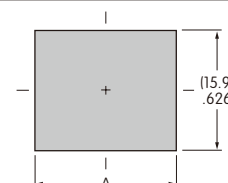


A

Black

LED colors & specifications on next page.

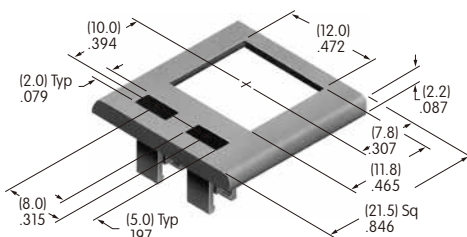
	Single Pole	Double Pole
A	(18.4)mm .724"	(18.7)mm .736"



4 AT213 Bezel for AT618 LED

Material: Polycarbonate

Finish: Semi-glossy

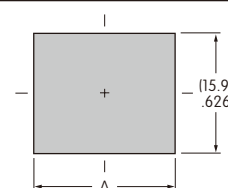


A

Black

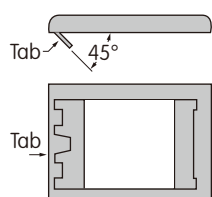
LED colors & specifications on next page.

	Single Pole	Double Pole
A	(18.4)mm .724"	(18.7)mm .736"

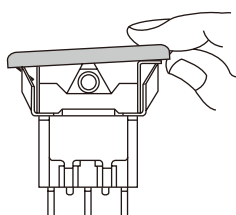


Bezel Assembly

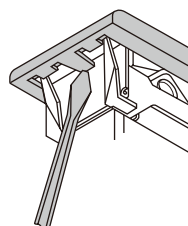
1. Pry out tab on bezel to a 45° angle.



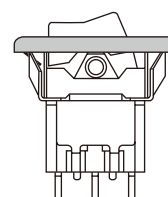
2. Insert switch frame under tab and snap on bezel.



3. Push tab back into place.

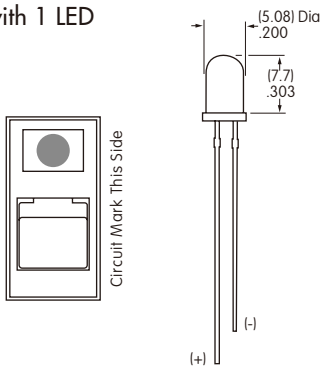


4. Snap assembled bezel and switch into panel.

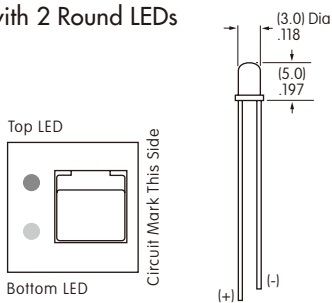


LED COLORS & SPECIFICATIONS

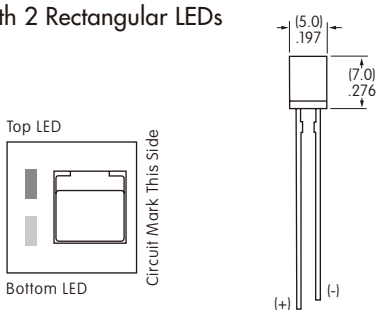
AT070 LED
For Bezel AT208
with 1 LED












AT617 LED
For Bezel AT212
with 2 Round LEDs



AT618 LED
For Bezel AT213
with 2 Rectangular LEDs



Note: Lead lengths may differ from manufacturing lot to lot. The longer lead is the anode (+).

	Color	AT070		AT617			AT618		
									
		Red	Green	Red	Yellow	Green	Red	Yellow	Green
Maximum Forward Current	I_{FM}	25mA	50mA	30mA	30mA	25mA	25mA	30mA	25mA
Typical Forward Current	I_F	20mA	30mA	20mA	20mA	20mA	20mA	20mA	20mA
Forward Voltage	V_F	2.8V	2.1V	2.0V	2.1V	2.25V	2.25V	2.1V	2.2V
Maximum Reverse Voltage	V_{RM}	4V	5V	5V	5V	5V	5V	5V	5V
Current Reduction Rate Above 25°C	ΔI_F	0.33 mA/°C	0.40 mA/°C	0.40 mA/°C	0.40 mA/°C	0.33 mA/°C	0.33 mA/°C	0.40 mA/°C	0.33 mA/°C
Ambient Temperature Range (when used with a bezel)		-10° ~ +70°C		-15° ~ +70°C			-25° ~ +70°C		

The electrical specifications shown are determined at a basic temperature of 25°C.
LED circuit is independent of switch operation. LED is colored in OFF state.

If the source voltage is greater than the rated voltage of the LED, a ballast resistor must be connected in series with the lamp.
The ballast resistor calculation and more lamp detail are shown in the Supplement section.

LEGENDS

NKK Switches can provide custom legends for caps. Contact factory for more information.

Suggested Printable Area for Cap

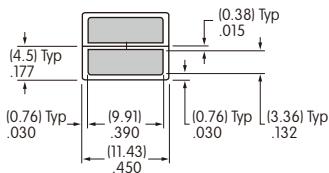
Recommended Print Method:

Pad Print

Epoxy based ink is recommended.



AT4150

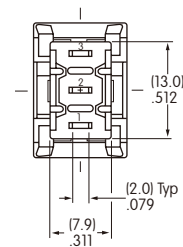
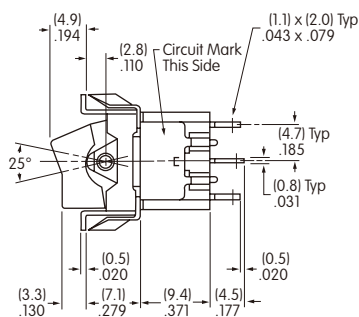
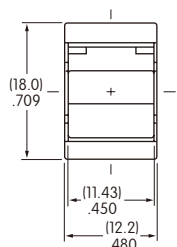


Shaded areas are printable areas.

TYPICAL SWITCH DIMENSIONS

Snap-in Frame • Solder Lug

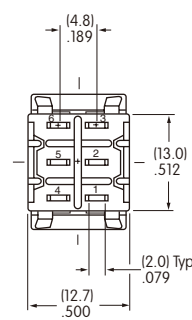
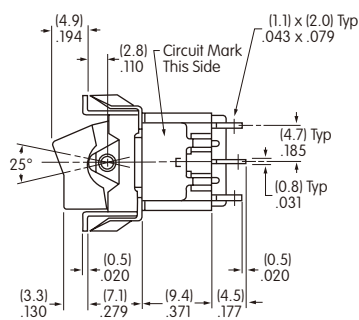
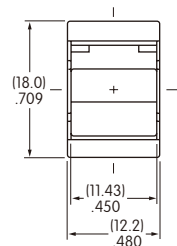
Single Pole



M2012TJW01-FC

Snap-in Frame • Solder Lug

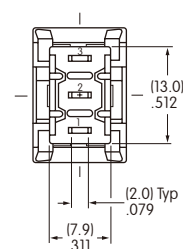
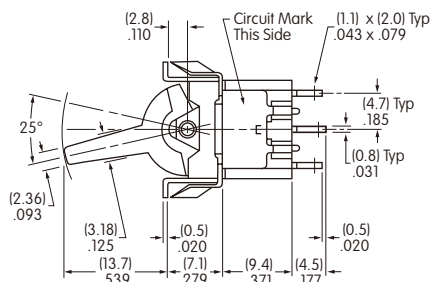
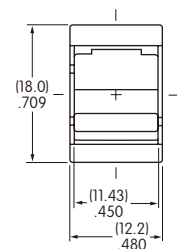
Double Pole



M2022TJW01-FC

Snap-in Frame • Solder Lug

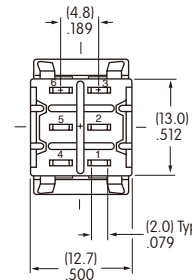
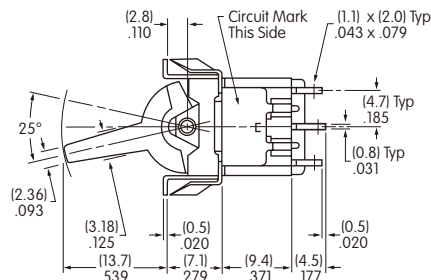
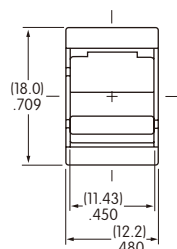
Single Pole



M2012TJW01-GC

Snap-in Frame • Solder Lug

Double Pole



M2022TJW01-GC

Toggles

B Rockers



Pushbuttons

Programmable



Keylocks

Rotaries



Slides

Tactiles



Tilt

Toggles

Rockers
B

Pushbuttons

Illuminated PB

Programmable

Keylocks

Rotaries

Slides

Tactiles

Tilt

Touch

Indicators

Accessories

Supplement

TYPICAL SWITCH

M20

1

3

TX

G

Poles	
1	SPDT
2	DPDT SP3T
3	3PDT (used only with terminal codes 30 & 41 & frame code TX)
4	4PDT DP3T (used only with terminal code 41 & frame code TX)

Mounting Frames	
TX	Narrow Frame for Small Actuator
TZ	Wide Frame for Large Actuator

Circuits			
2	ON	NONE	ON
3	ON	OFF	ON
5	ON	NONE	(ON)
8	(ON)	OFF	(ON)
9	ON	OFF	(ON)
*4	ON	ON	ON
*6	(ON)	ON	(ON)
*7	ON	ON	(ON)

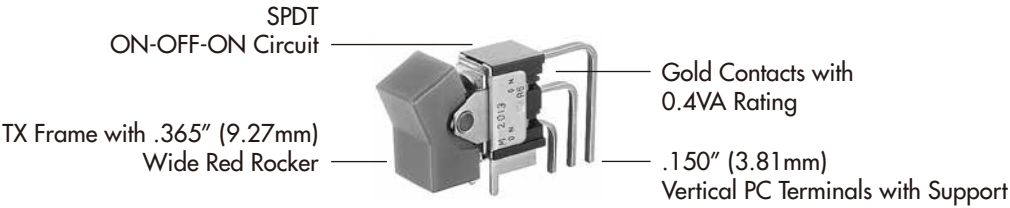
() = Momentary

* 3-ON circuits

Contact Materials & Ratings	
W	Silver; Rated 6A @ 125V AC & 3A @ 250V AC
G	Gold; Rated 0.4VA max @ 28V AC/DC max
A	Gold over Silver; Rated 6A @ 125V AC & 0.4VA max @ 28V AC/DC max

DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

M2013TXG41-DC



ORDERING EXAMPLE

41

Terminals For
TX & TZ Frames

Straight PC with Bracket
(1-2 Pole only)

13	.250" (6.35mm) Straight PC with .465" (11.8mm) Bracket
15	.425" (10.8mm) Straight PC with .630" (16.0mm) Bracket
17	.964" (24.5mm) Straight PC with 1.150" (29.2mm) Bracket

Straight PC with Reinforced Bracket
(1-2 Pole only)

23	.250" (6.35mm) Straight PC with .465" (11.8mm) Bracket
25	.425" (10.8mm) Straight PC with .630" (16.0mm) Bracket
26	.750" (19.05mm) Straight PC with .953" (24.2mm) Bracket

Terminals For
TX Frame Only

Right Angle PC with Support
(1-3 Pole only)

30	.150" (3.81mm) Right Angle PC
----	-------------------------------

Vertical PC with Support
(1-4 Pole)

41	.150" (3.81mm) Vertical PC
----	----------------------------

D

C

Rockers
& Paddles

Small Actuators
(TX Frame)

D	.365" (9.27mm) Wide Rocker
E	.365" (9.27mm) Wide Paddle
F	.450" (11.43mm) Wide Rocker
G	.450" (11.43mm) Wide Paddle

Large Actuators
(TZ Frame)

J	.595" (15.11mm) Wide Rocker
H	.595" (15.11mm) Wide Paddle

Rocker & Paddle
Colors

A	Black
B	White
C	Red
E	Yellow
F	Green
G	Blue
H	Gray

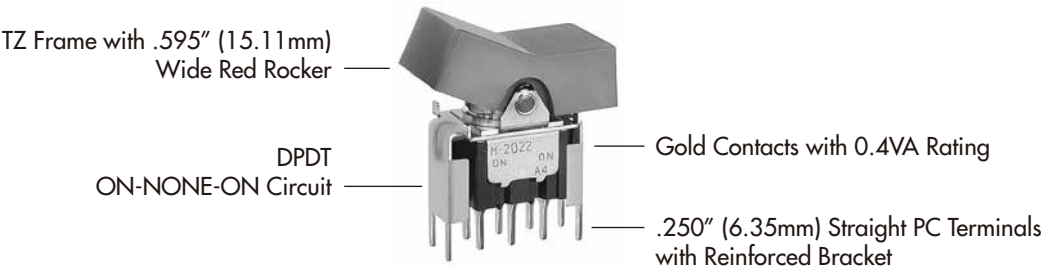
IMPORTANT:





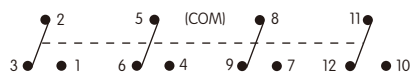
Switches are supplied without UL & CSA marking unless specified.
UL & CSA recognized only when ordered with marking on the switch.
Specific models, ratings and ordering instructions are noted on the
General Specifications page.

DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

M2022TZG23-JC

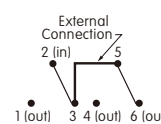
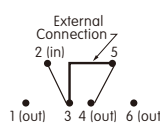
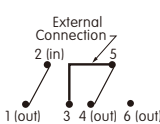
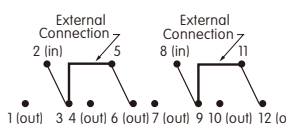
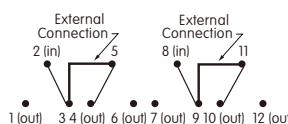
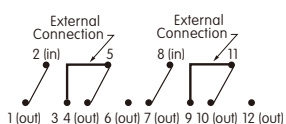


POLES & CIRCUITS

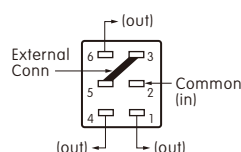
Pole	Model	Rocker Position () = Momentary			Connected Terminals			Throw & Schematics
		Down	Center	Up	Down	Center	Up	
SP	M2012	ON	NONE	ON				Note: Terminal numbers are not actually on the switch. * Reverse circuits available for vertical mount SP & DP upon request.
	M2013	ON	OFF	ON				
	*M2015	ON	NONE	(ON)	2-3	OPEN	2-1	
	M2018	(ON)	OFF	(ON)				
	*M2019	ON	OFF	(ON)				
DP	M2022	ON	NONE	ON				DPDT 
	M2023	ON	OFF	ON				
	*M2025	ON	NONE	(ON)	2-3 5-6	OPEN	2-1 5-4	
	M2028	(ON)	OFF	(ON)				
	*M2029	ON	OFF	(ON)				
3P	M2022	ON	NONE	ON				3PDT 
	M2023	ON	OFF	ON				
	*M2025	ON	NONE	(ON)	2-3 5-6 8-9	OPEN	2-1 5-4 8-7	
	M2028	(ON)	OFF	(ON)				
	*M2029	ON	OFF	(ON)				
4P	M2042	ON	NONE	ON				4PDT 
	M2043	ON	OFF	ON				
	*M2045	ON	NONE	(ON)	2-3 5-6 8-9 11-12	OPEN	2-1 5-4 8-7 11-10	
	M2048	(ON)	OFF	(ON)				
	*M2049	ON	OFF	(ON)				

For 3 Throw (3-On)

Connected Terminals & Schematics

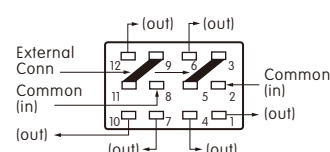
Pole	Model	Down	Center	Up	Down	Center	Up
SP	M2024	ON	ON	ON	 2-3 5-6	 2-3 5-4	 2-1 5-4
	M2026	(ON)	ON	(ON)			
	M2027	ON	ON	(ON)			
DP	M2044	ON	ON	ON	 2-3 5-6 8-9 11-12	 2-3 5-4 8-9 11-10	 2-1 5-4 8-7 11-10
	M2046	(ON)	ON	(ON)			
	M2047	ON	ON	(ON)			

The SP3T model utilizes a double pole base.



External connection must be made during field installation.

The DP3T model utilizes a four pole base.

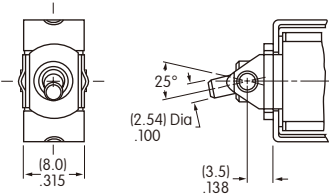


External connection must be made during field installation.

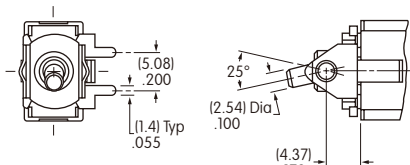
MOUNTING FRAMES

TX Narrow Mounting Frame for Small Actuators
with Straight PC Terminals (codes 13, 15, 17, 23, 25, & 26)
or with Angle PC Terminals (codes 30 & 41)

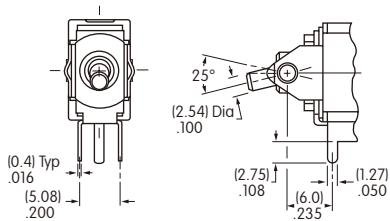
Straight PC Mounting



Right Angle PC Mounting

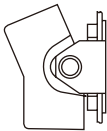


Vertical PC Mounting

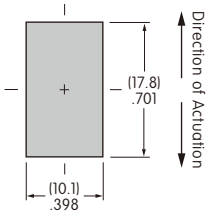
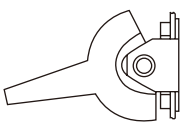


Small Actuators & Panel Cutouts for TX Frame (actuator details on the following pages)

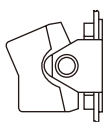
AT4148



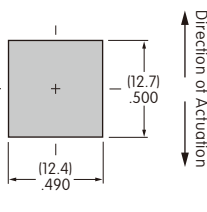
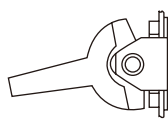
AT4149



AT4150



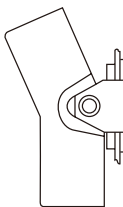
AT4151



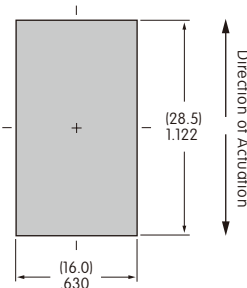
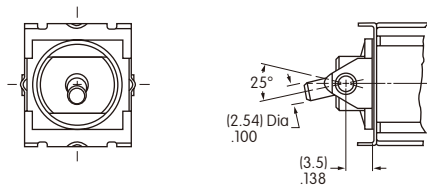
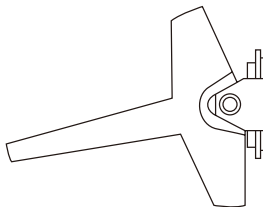
TZ Wide Mounting Frame for Large Actuators
with Straight PC Terminals
(codes 13, 15, 17, 23, 25, & 26)

Large Actuators & Panel Cutouts for TZ Frame
(actuator details on the following pages)

AT4156



AT4157



CONTACT MATERIALS & RATINGS

W Silver over Silver Power Level 6A @ 125V AC & 3A @ 250V AC

G Gold over Brass or Copper Logic Level 0.4VA maximum @ 28V AC/DC maximum

Note: See Supplement section to find complete explanation of operating range.

A Gold over Silver Power Level or Logic Level 6A @ 125V AC or 0.4VA maximum @ 28V AC/DC maximum

Note: This dual rated option is suitable when two or more identical switches are used in logic and in power circuits within the same application. See Supplement section to find complete explanation of dual rating and operating range.

TERMINALS

For TX and TZ 1-2 Pole
Straight PC Mount with Bracket

For TX and TZ 1-2 Pole
Straight PC Mount with Reinforced Bracket

13

.250" (6.35mm)
Terminal with
.465" (11.8mm)
Bracket

15

.425" (10.8mm)
Terminal with
.630" (16.0mm)
Bracket

17

.964" (24.5mm)
Terminal with
1.150" (29.2mm)
Bracket

23

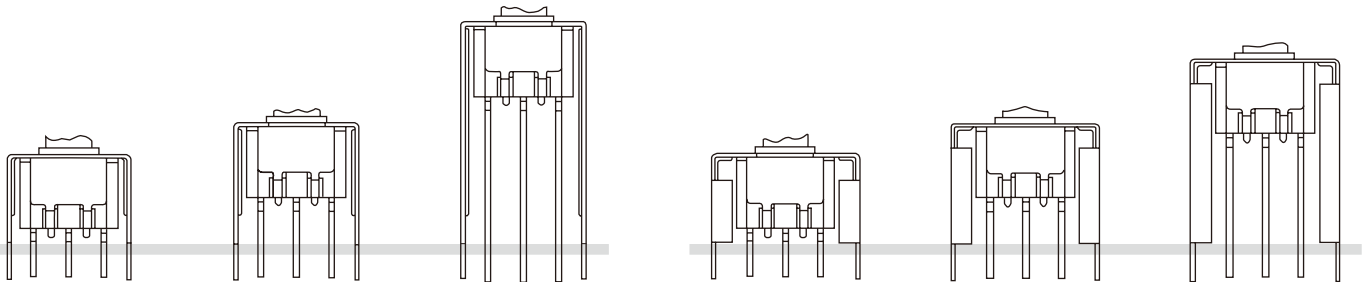
.250" (6.35mm)
Terminal with
.465" (11.8mm)
Bracket

25

.425" (10.8mm)
Terminal with
.630" (16.0mm)
Bracket

26

.750" (19.05mm)
Terminal with
.953" (24.2mm)
Bracket



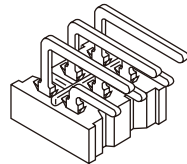
PCB footprints are on the following Typical Switch Dimension pages.

For TX 1-3 Pole Right Angle PC Mount

For TX 1-4 Pole Vertical PC Mount

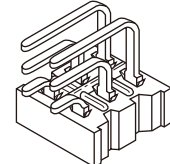
30

.150" (3.81mm)
Right Angle PC



41

.150" (3.81mm)
Vertical PC

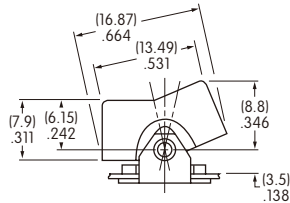
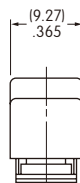


ROCKERS & PADDLES FOR TX MOUNTING FRAMES

D

AT4148 .365" (9.27mm)
Wide Rocker

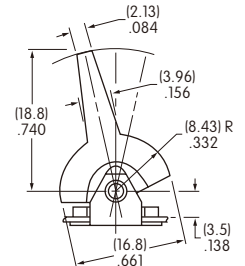
Material: Polyamide
Finish: Matte



E

AT4149 .365" (9.27mm)
Wide Paddle

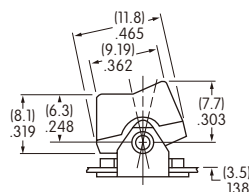
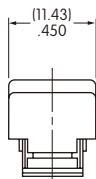
Material: Polyamide
Finish: Matte



F

AT4150 .450" (11.43mm)
Wide Rocker

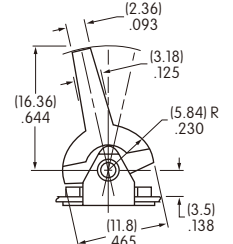
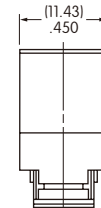
Material: Polyamide
Finish: Matte



G

AT4151 .450" (11.43mm)
Wide Paddle

Material: Polyamide
Finish: Matte



Cap Colors
Available:

A

Black

B

White

C

Red

E

Yellow

F

Green

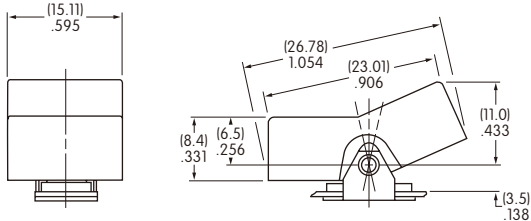
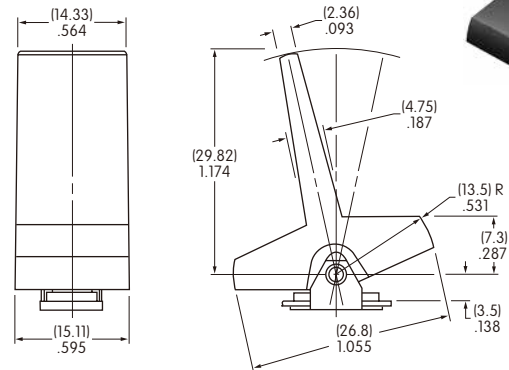
G

Blue

H

Gray

ROCKERS & PADDLES FOR TZ MOUNTING FRAMES

J AT4156 .595" (15.11mm)
Wide RockerMaterial: Polyamide
Finish: Matte**H** AT4157 .595" (15.11mm)
Wide PaddleMaterial: Polyamide
Finish: MatteCap Colors
Available:

Black



White



Red



Yellow



Green



Blue



Gray

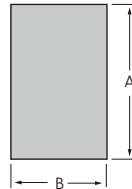
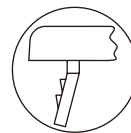
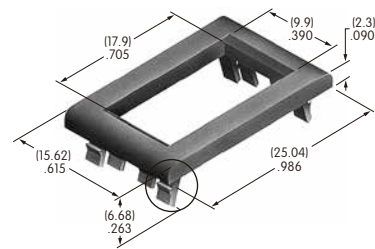
OPTIONAL SNAP-IN PANEL FRAMES

Used with AT4148 Rocker and AT4149 Paddle

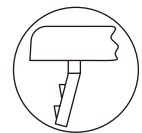
AT064-1Accommodates .047" ~ .090"
(1.2 ~ 2.3mm) panel thicknessMaterial: Polyamide
Finish: Matte
Color: Black

Mounted separately from switches

Cutout Tolerances:

Dimension A:
.797" ~ .803" (20.24 ~ 20.4mm)Dimension B:
.495" ~ .505" (12.57 ~ 12.83mm)**AT064-2**
Accommodates .062" ~ .125"
(1.57 ~ 3.18mm) panel thickness

AT064-1 Enlarged Detail

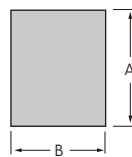
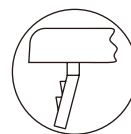
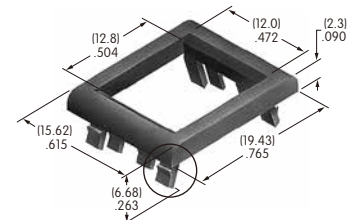


Used with AT4150 Rocker and AT4151 Paddle

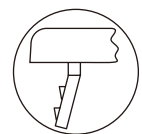
AT065-1Accommodates .047" ~ .090"
(1.2 ~ 2.3mm) panel thicknessMaterial: Polyamide
Finish: Matte
Color: Black

Mounted separately from switches

Cutout Tolerances:

Dimension A:
.595" ~ .605" (15.11 ~ 15.37mm)Dimension B:
.495" ~ .500" (12.57 ~ 12.7mm)**AT065-2**
Accommodates .062" ~ .125"
(1.57 ~ 3.18mm) panel thickness

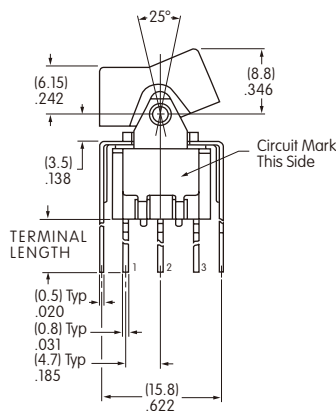
AT065-1 Enlarged Detail



AT065-2 Enlarged Detail

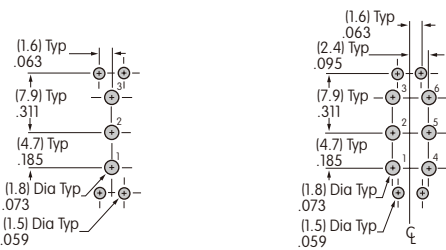
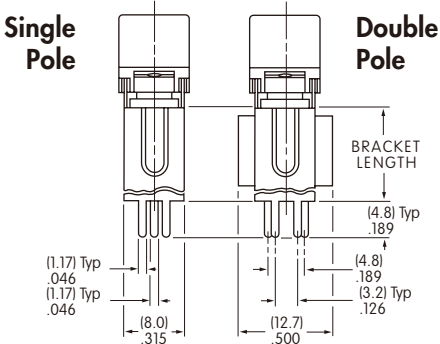
TYPICAL SWITCH DIMENSIONS

Straight PC • Bracket

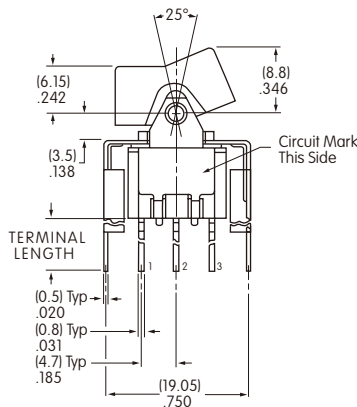


M2012TXG13-DC

Terminal Code:	Terminal Length:	Bracket Length:
13	.250" (6.35mm)	.465" (11.8mm)
15	.425" (10.8mm)	.630" (16.0mm)
17	.964" (24.5mm)	1.150" (29.2mm)

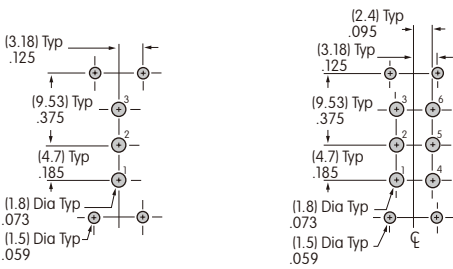
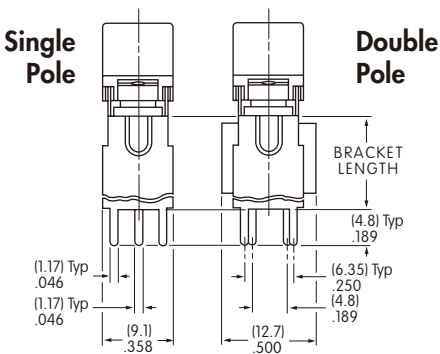


Straight PC • Reinforced Bracket



M2012TXG23-DC

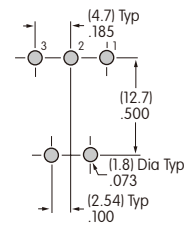
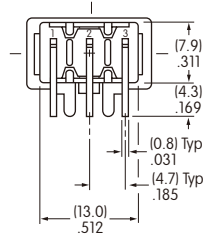
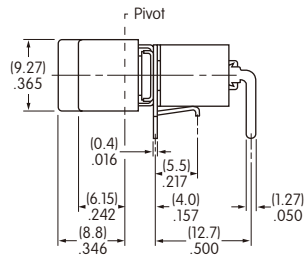
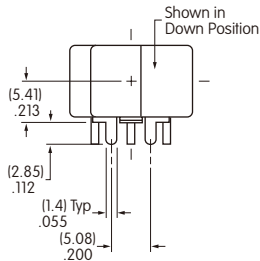
Terminal Code:	Terminal Length:	Bracket Length:
23	.250" (6.35mm)	.465" (11.8mm)
25	.425" (10.8mm)	.630" (16.0mm)
26	.750" (19.05mm)	.953" (24.2mm)



TYPICAL SWITCH DIMENSIONS

Single Pole

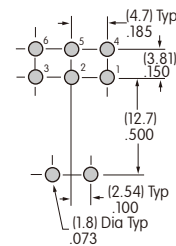
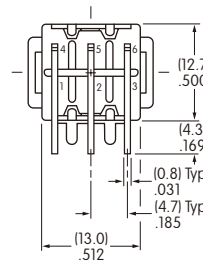
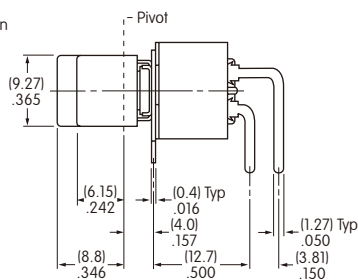
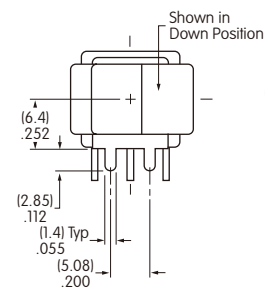
.150" (3.81mm) Right Angle PC



M2012TXG30-DC

Double Pole

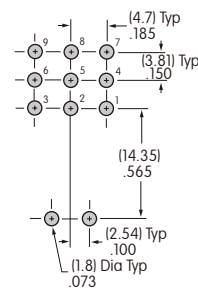
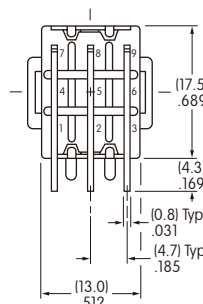
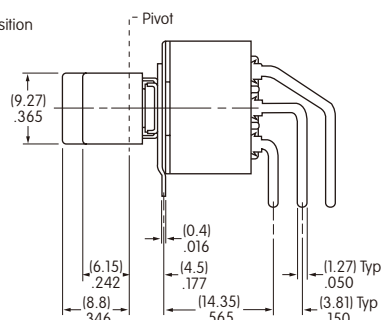
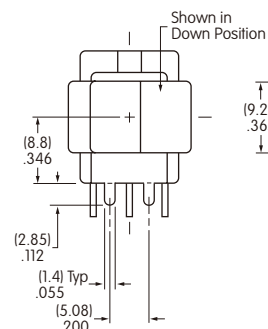
.150" (3.81mm) Right Angle PC



M2022TXG30-DC

Three Pole

.150" (3.81mm) Right Angle PC

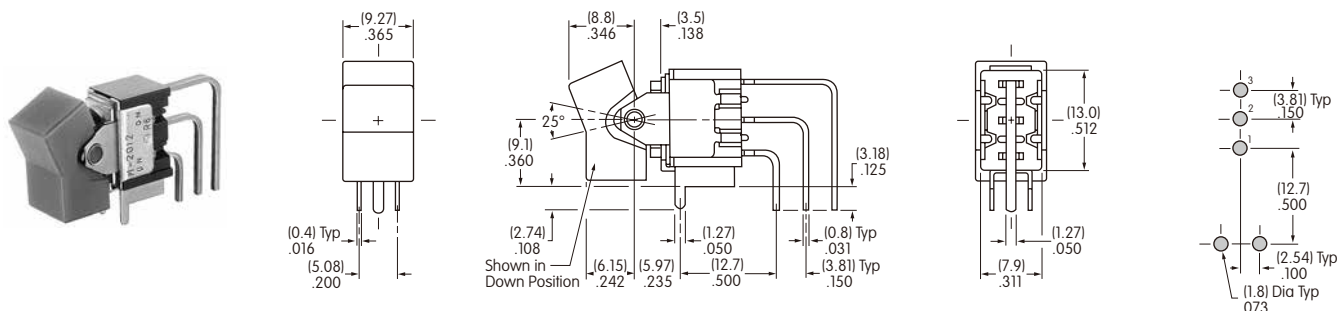


M2032TXG30-DC

TYPICAL SWITCH DIMENSIONS

.150" (3.81mm) Vertical PC

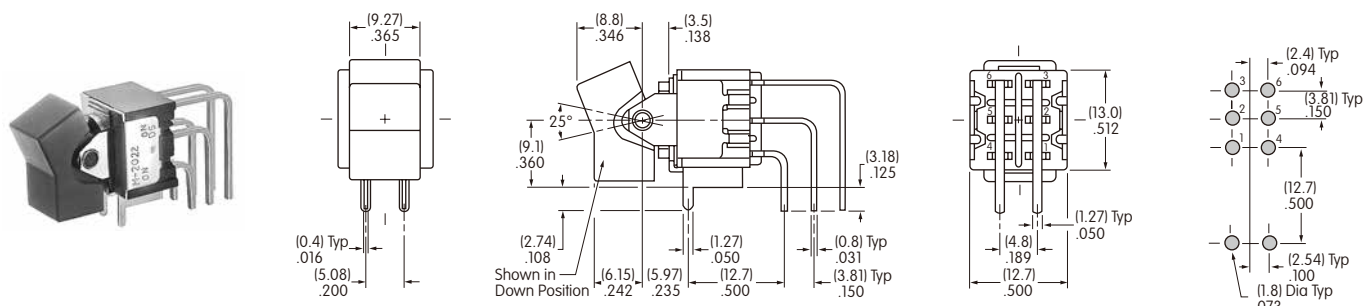
Single Pole



M2012TXG41-DC

.150" (3.81mm) Vertical PC

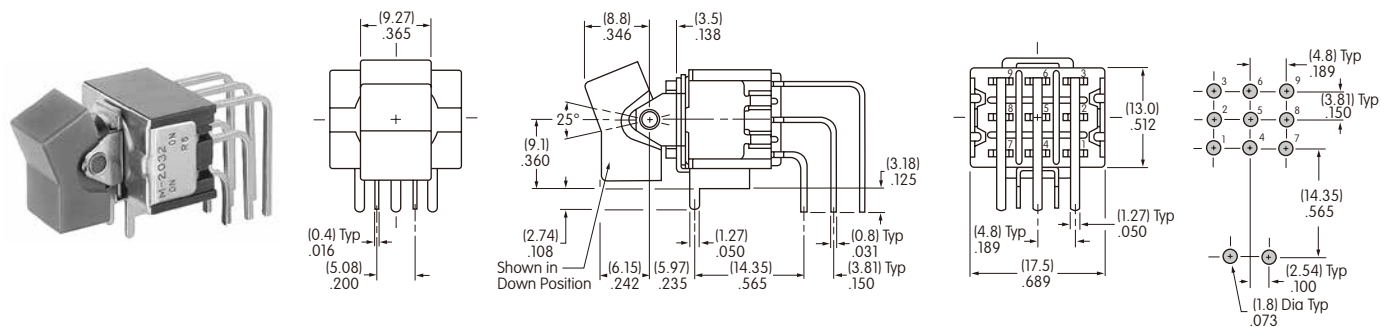
Double Pole



M2022TXG41-DC

.150" (3.81mm) Vertical PC

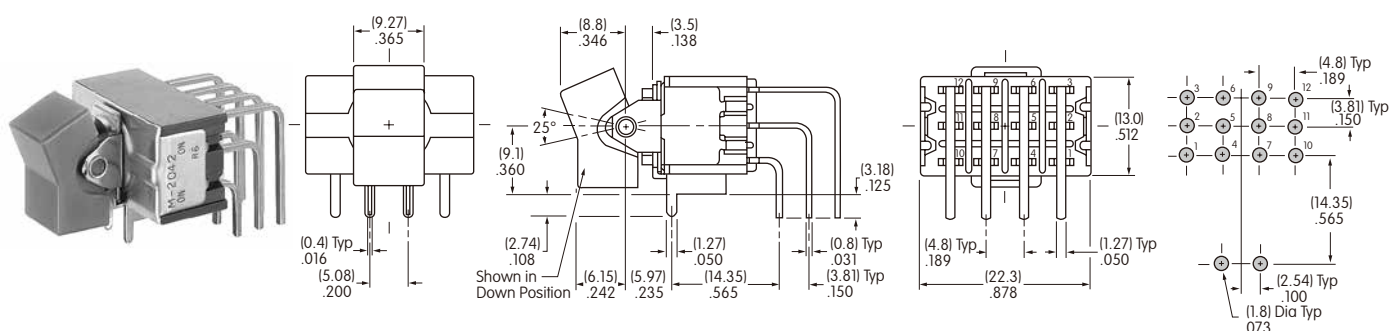
Three Pole



M2032TXG41-DC

.150" (3.81mm) Vertical PC

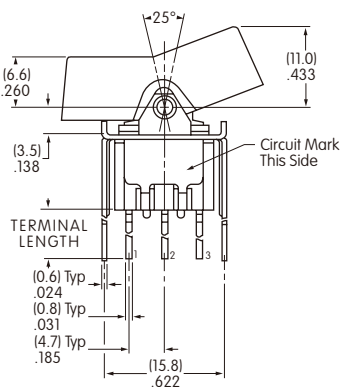
Four Pole



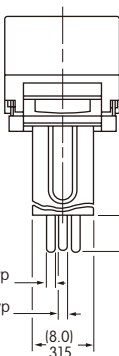
M2042TXG41-DC

TYPICAL SWITCH DIMENSIONS

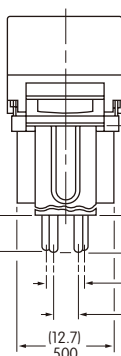
Straight PC • Bracket



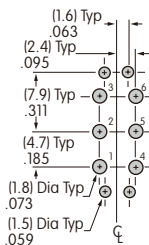
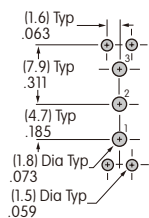
Single Pole



Double Pole

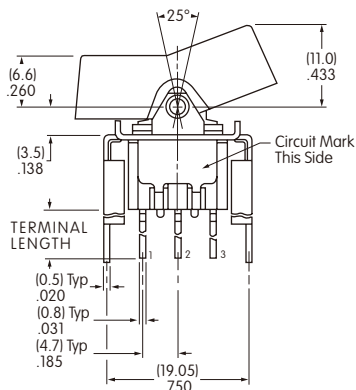


M2012TZG13-JC

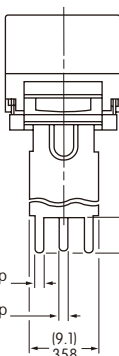


Terminal Code:	Terminal Length:	Bracket Length:
13	.250" (6.35mm)	.465" (11.8mm)
15	.425" (10.8mm)	.630" (16.0mm)
17	.964" (24.5mm)	1.150" (29.2mm)

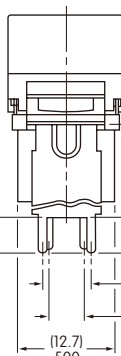
Straight PC • Reinforced Bracket



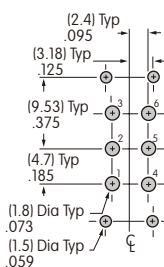
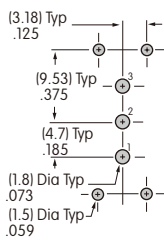
Single Pole



Double Pole



M2012TZG23-JC



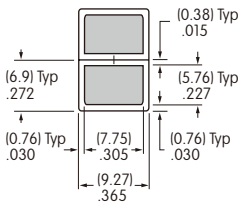
Terminal Code:	Terminal Length:	Bracket Length:
23	.250" (6.35mm)	.465" (11.8mm)
25	.425" (10.8mm)	.630" (16.0mm)
26	.750" (19.05mm)	.953" (24.2mm)

LEGENDS

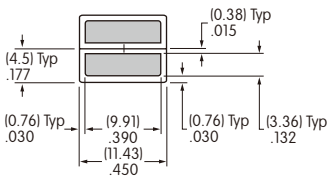
NKK Switches can provide custom legends for caps. Contact factory for more information.

Suggested Printable Area for Cap

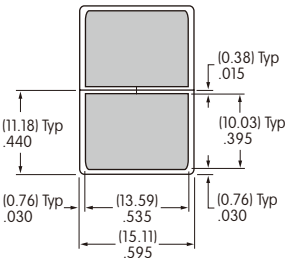
AT4148



AT4150



AT4156



Shaded areas are printable areas.

Recommended Print Method:

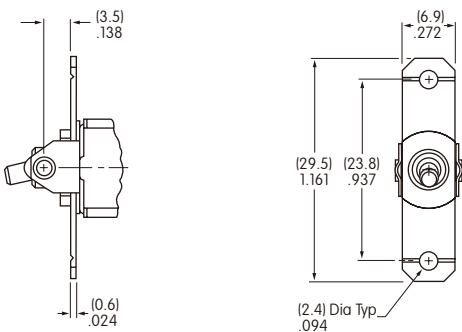
Pad Print

Epoxy based ink is recommended.

MOUNTING FRAMES

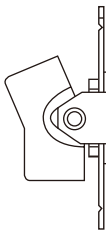
TN .272" (6.9mm)
Wide Flat Frame

Mounting hardware kit HK-1, as shown on the following page, must be ordered separately.

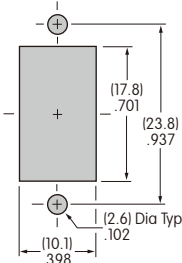
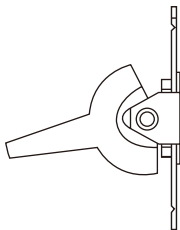


Small Actuators & Panel Cutouts for TN Frame (actuator details on the following pages)

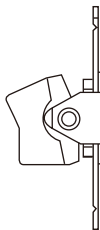
AT4148



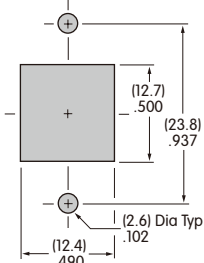
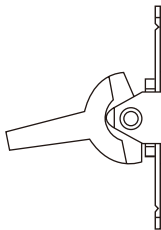
AT4149



AT4150



AT4151

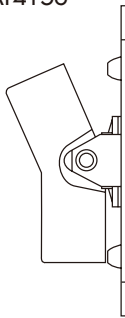


TY .504" (12.8mm)
Wide Flat Frame

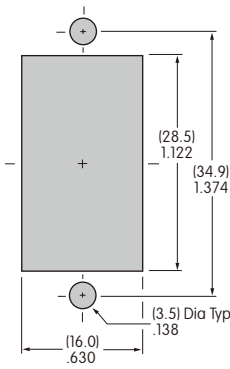
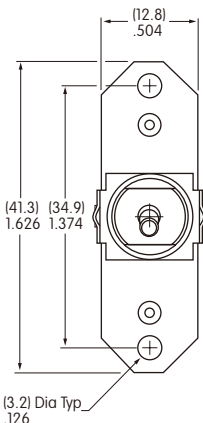
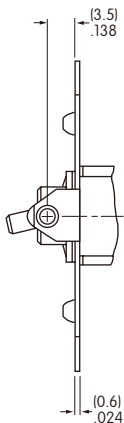
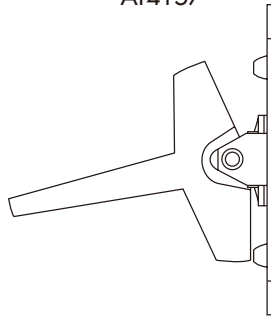
Large Actuators & Panel Cutout for TY Frame
(actuator details on the following pages)

Mounting hardware kit HK-2, as shown on the following page, must be ordered separately.

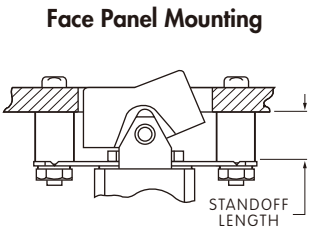
AT4156



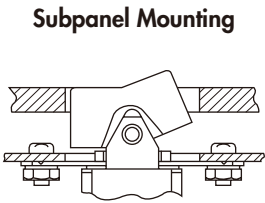
AT4157



MOUNTING FRAMES (CONTINUED)



Flat frame devices may also be mounted to the face panel. Standoffs are used to recess the actuator and achieve an attractive front panel appearance.



These devices are especially designed for subpanel mounting. When installed on a mounting plate behind the panel, hardware is completely concealed and the front panel retains a clean, attractive appearance.

Optional Hardware Kits for Subpanel or Face Panel Mounting			
Frame	Panel Thickness	Standoff Length	Hardware Kit Number
TN Frame	.125" (3.175mm)	.233" (5.918mm)	ATHK-1
TY Frame	.125" (3.175mm)	.312" (7.925mm)	ATHK-2
Hardware kits include: 2 stainless steel screws, 2 hex nuts, 2 lockwashers, & 2 standoffs			

Optional Snap-in Panel Frames



AT064-1
AT064-2



AT065-1
AT065-2

Further details are shown in the previous bracketed PC mount subsection.

CONTACT MATERIALS & RATINGS



Silver over Silver

Power Level

6A @ 125V AC & 3A @ 250V AC



Gold over Brass or Copper

Logic Level

0.4VA maximum @ 28V AC/DC maximum

Note: See Supplement section to find complete explanation of operating range.



Gold over Silver

Power Level
or Logic Level

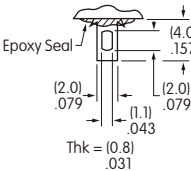
6A @ 125V AC
or 0.4VA maximum @ 28V AC/DC maximum

Note: This dual rated option is suitable when two or more identical switches are used in logic and in power circuits within the same application. See Supplement section to find complete explanation of dual rating and operating range.

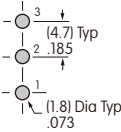
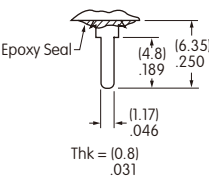
TERMINALS



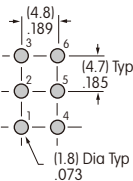
Solder Lug



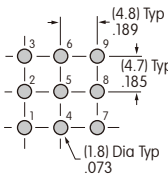
.250" (6.35mm)
Straight PC



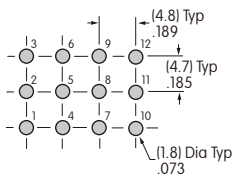
Single Pole



Double Pole



Three Pole



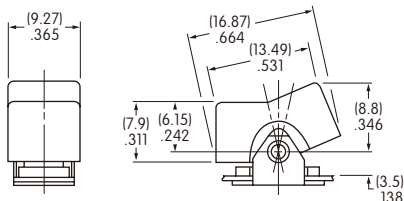
Four Pole

ROCKERS & PADDLES

For TN Frame

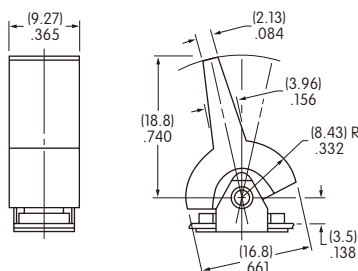
D AT4148 .365" (9.27mm) Wide Rocker

Material: Polyamide
Finish: Matte



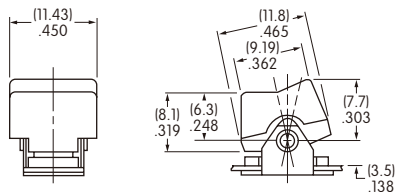
E AT4149 .365" (9.27mm) Wide Paddle

Material: Polyamide
Finish: Matte



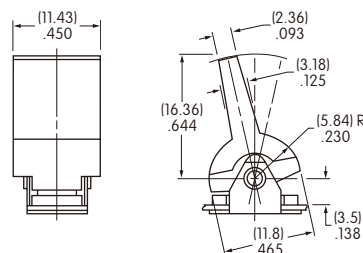
F AT4150 .450" (11.43mm) Wide Rocker

Material: Polyamide
Finish: Matte



G AT4151 .450" (11.43mm) Wide Paddle

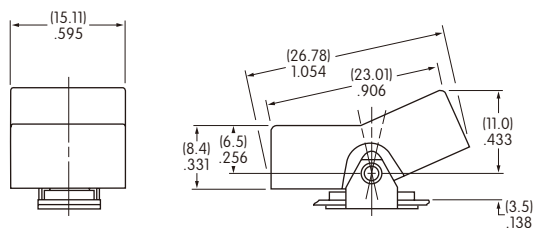
Material: Polyamide
Finish: Matte



For TY Frame

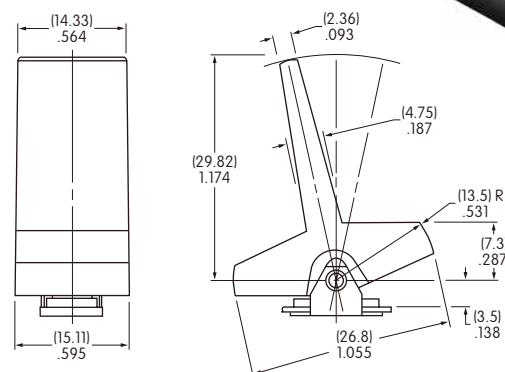
J AT4156 .595" (15.11mm) Wide Rocker

Material: Polyamide
Finish: Matte



H AT4157 .595" (15.11mm) Wide Paddle

Material: Polyamide
Finish: Matte



Cap Colors
Available:



Black



White



Red



Yellow



Green



Blue



Gray

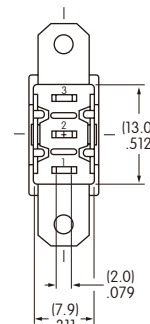
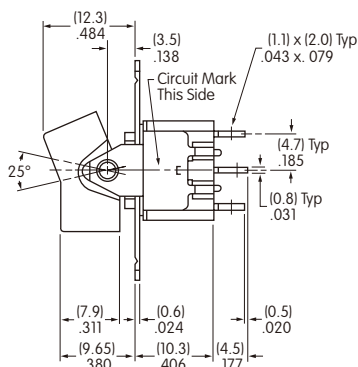
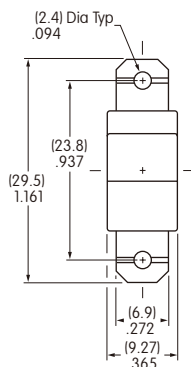
TYPICAL SWITCH DIMENSIONS

TN Frame • Solder Lug



M2012TNW01-DC

Single Pole

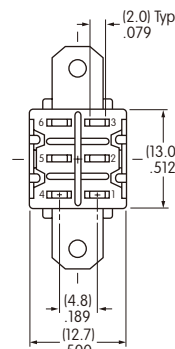
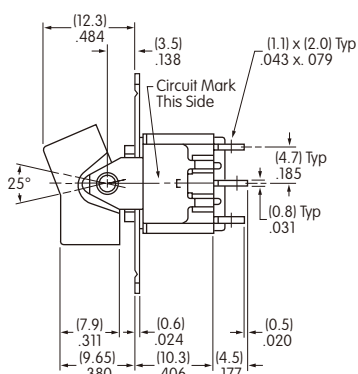
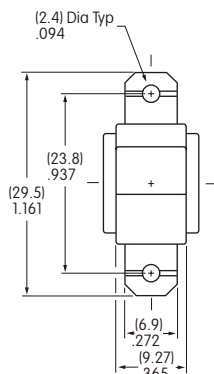


TN Frame • Solder Lug



M2022TNW01-DC

Double Pole

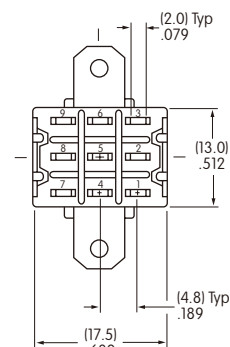
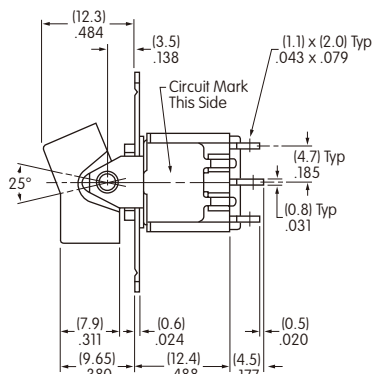
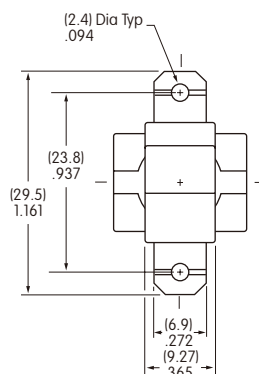


TN Frame • Solder Lug



M2032TNW01-DC

Three Pole

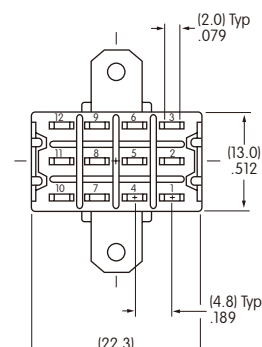
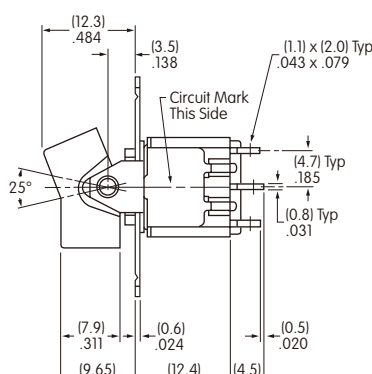
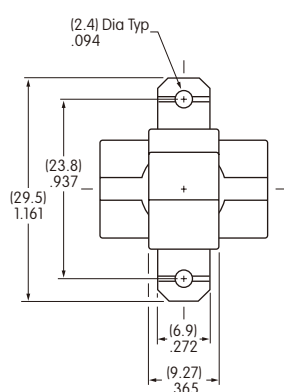


TN Frame • Solder Lug



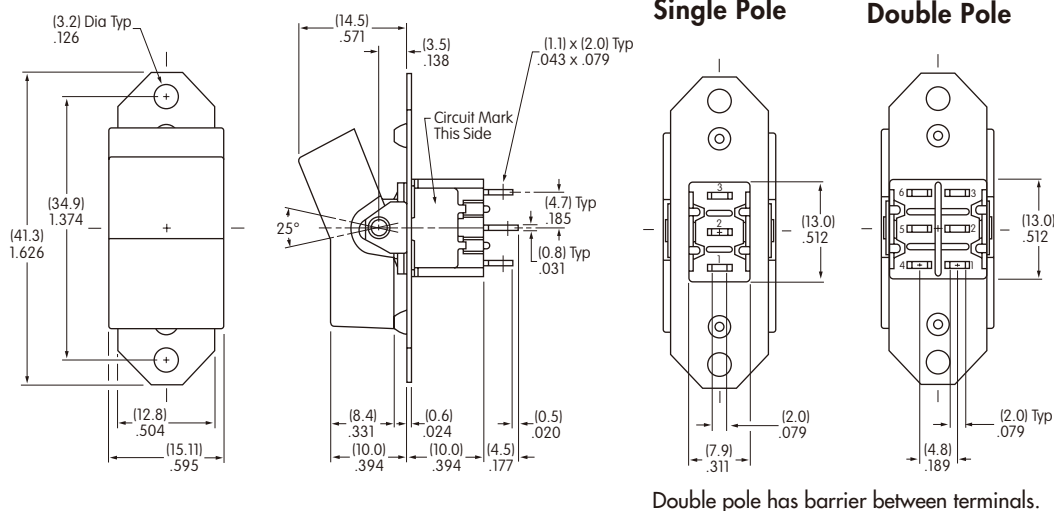
M2042TNW01-DC

Four Pole



TYPICAL SWITCH DIMENSIONS

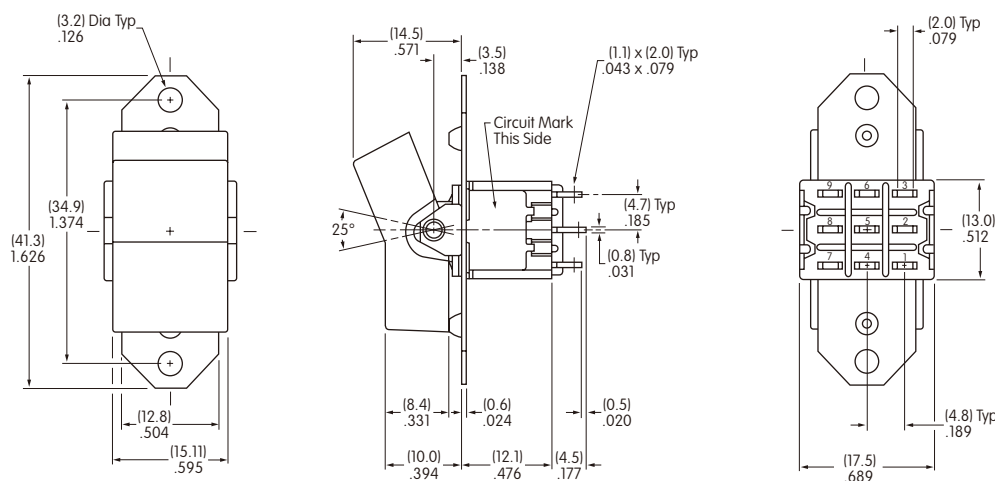
TY Frame • Solder Lug



M2012TYW01-JC

Three Pole

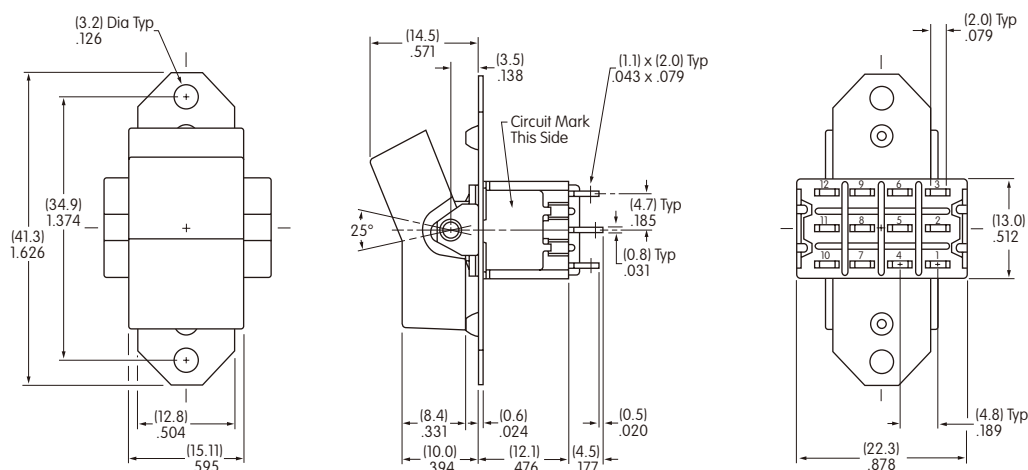
TY Frame • Solder Lug



M2032TYW01-JC

Four Pole

TY Frame • Solder Lug



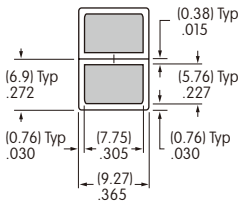
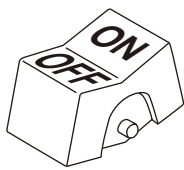
M2042TYW01-JC

LEGENDS

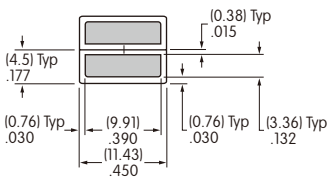
NKK Switches can provide custom legends for caps. Contact factory for more information.

Suggested Printable Area for Caps

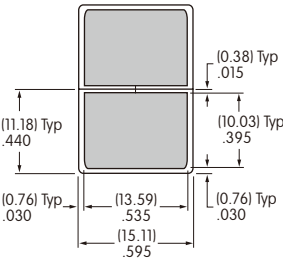
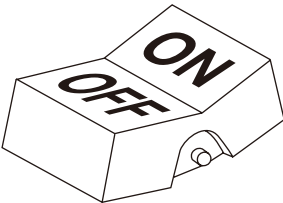
AT4148



AT4150



AT4156



Shaded areas are printable areas.

Recommended Print Method:

Pad Print

Epoxy based ink is recommended.

TYPICAL SWITCH ORDERING EXAMPLE

M20

1

2

TN

W

01

—

D

C

Poles

1	SPDT
2	DPDT SP3T
3	3PDT
4	4PDT DP3T

Mounting Frames

TN	.272" (6.9mm) Wide Flat Frame
TY	.504" (12.8mm) Wide Flat Frame

Circuits

2	ON	NONE	ON
3	ON	OFF	ON
5	ON	NONE	(ON)
8	(ON)	OFF	(ON)
9	ON	OFF	(ON)
*4	ON	ON	ON
*6	(ON)	ON	(ON)
*7	ON	ON	(ON)

() = Momentary

* 3-ON circuits

Contact Materials & Ratings

W	Silver; Rated 6A @ 125V AC & 3A @ 250V AC
G	Gold; Rated 0.4VA max @ 28V AC/DC max
A	Gold over Silver; Rated 6A @ 125V AC & 0.4VA max @ 28V AC/DC max

Rockers & Paddles

Small Actuators (TN Frame)

D	.365" (9.27mm) Wide Rocker
E	.365" (9.27mm) Wide Paddle
F	.450" (11.43mm) Wide Rocker
G	.450" (11.43mm) Wide Paddle

Large Actuators (TY Frame)

J	.595" (15.11mm) Wide Rocker
H	.595" (15.11mm) Wide Paddle

Terminals

01	Solder Lug
03	.250" (6.35mm) Straight PC

Rocker & Paddle Colors

A	Black
B	White
C	Red
E	Yellow
F	Green
G	Blue
H	Gray

IMPORTANT:



Switches are supplied without UL & CSA marking unless specified.
UL & CSA recognized only when ordered with marking on the switch.
Specific models, ratings and ordering instructions are noted on the
General Specifications page.

DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

M2012TNW01-DC

Red .365" (9.27mm)
Wide Rocker

SPDT
ON-NONE-ON Circuit

Solder Lug Terminals

.272" (6.9mm) Wide
Flat Frame

Silver Contacts
with 6-Amp Rating

POLES & CIRCUITS

Pole	Model	Rocker Position () = Momentary			Connected Terminals			Throw & Schematics
		Down	Center	Up	Down	Center	Up	
SP	M2012	ON	NONE	ON				SPDT
	M2013	ON	OFF	ON				
	M2015	ON	NONE	(ON)	2-3	OPEN	2-1	
	M2018	(ON)	OFF	(ON)				
	M2019	ON	OFF	(ON)				
DP	M2022	ON	NONE	ON				DPDT
	M2023	ON	OFF	ON				
	M2025	ON	NONE	(ON)	2-3 5-6	OPEN	2-1 5-4	
	M2028	(ON)	OFF	(ON)				
	M2029	ON	OFF	(ON)				
3P	M2032	ON	NONE	ON				3PDT
	M2033	ON	OFF	ON				
	M2035	ON	NONE	(ON)	2-3 5-6 8-9	OPEN	2-1 5-4 8-7	
	M2038	(ON)	OFF	(ON)				
	M2039	ON	OFF	(ON)				
4P	M2042	ON	NONE	ON				4PDT
	M2043	ON	OFF	ON				
	M2045	ON	NONE	(ON)	2-3 5-6 8-9 11-12	OPEN	2-1 5-4 8-7 11-10	
	M2048	(ON)	OFF	(ON)				
	M2049	ON	OFF	(ON)				

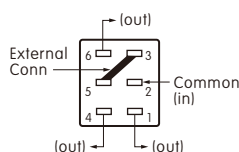
For 3 Throw (3-On)

Connected Terminals & Schematics

Pole	Model	Down	Center	Up	Down	Center	Up
SP	M2024	ON	ON	ON			
	M2026	(ON)	ON	(ON)			
	M2027	ON	ON	(ON)			
DP	M2044	ON	ON	ON			
	M2046	(ON)	ON	(ON)			
	M2047	ON	ON	(ON)			

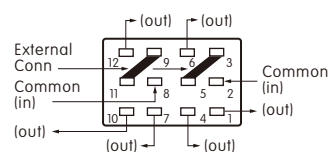
The SP3T model utilizes a double pole base.

External connection must be made during field installation.



The DP3T model utilizes a four pole base.

External connection must be made during field installation.



General Specifications

B Electrical Capacity (Resistive Load)

Power Level (silver): 6A @ 125V AC or 3A @ 250V AC or 3A @ 30V DC

Logic Level (gold): 0.4VA maximum @ 28V AC/DC maximum
(Applicable Range 0.1mA ~ 0.1A @ 20mV ~ 28V)

Note: Find additional explanation of operating range in Supplement section.

Other Ratings

Contact Resistance: 10 milliohms maximum for silver; 20 milliohms maximum for gold

Insulation Resistance: 1,000 megohms minimum @ 500V DC

Dielectric Strength: 1,000V AC minimum between contacts for 1 minute minimum;
1,500V AC minimum between contacts & case for 1 minute minimum

Mechanical Life: 50,000 operations minimum

Electrical Life: 25,000 operations minimum

Nominal Operating Force:		On-to-On Position		Off-to-On Position	
Paddles	Single Pole		3.19N		3.92N
	Double Pole		4.41N		7.06N
Rockers	Single Pole		6.37N		9.80N
	Double Pole		13.73N		17.65N

Angle of Throw: 20°

Materials & Finishes

Housing: Stainless steel

Mounting Bracket: Stainless steel

Movable Contacts: Silver alloy or silver alloy with gold plating

Stationary Contacts: Silver with silver plating or copper or brass with gold plating

Lamp Contacts: Phosphor bronze

Base: Diallyl phthalate (UL94V-0)

Switch Terminals: Copper with silver or gold plating

Lamp Terminals: Brass with silver or gold plating

Environmental Data

Operating Temp Range: -10°C through +55°C (+14°F through +131°F) for rockers
-25°C through +70°C (-13°F through +158°F) for paddles

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)

Installation

Soldering Time & Temp: Wave Soldering (PC version): See Profile B in Supplement section.
Manual Soldering: See Profile B in Supplement section.

Note: Lever must be in center position while soldering.

Cleaning: PC mountable device is not process sealed. Hand clean locally using alcohol based solution.

Standards & Certifications

Flammability Standards: UL94V-0 base

UL: File No. E44145 - Recognized only when ordered with marking on switch.

Add "/U" before dash in part number to order UL recognized switch.

Single pole rockers with synchronous circuits & single color LEDs & solder lug or PC recognized at 6A @ 125V AC.

CSA: File No. 023535_0_000 - Certified only when ordered with marking on switch.

Add "/C" before dash in part number to order CSA certified switch.

All single pole rockers with synchronous circuits & single color LEDs certified at 6A @ 125V AC.

TYPICAL SWITCH ORDERING EXAMPLE

M21

1

2

N

CF

W

01

—

Poles

1	SPDT
* 2	DPDT

* Available only with Rockers with Terminals 01, 02, 03

Circuits

2	ON	NONE	ON
3	ON	OFF	ON

LED Colors

Single Color

C	Red
E	Yellow
F	Green

Bicolor

CF	Red/Green
----	-----------

Contact Materials & Ratings

W	Silver; Rated 6A @ 125V AC
G	Gold; Rated 0.4VA max @ 28V AC/DC max

LED Circuits & Actuator Types

Rocker

R	Isolated
N	Synchronous

Paddle

P	Isolated
J	Synchronous

Terminals & Mounting Types

01	Solder Lug with Flat Frame
02	Quick Connect with Flat Frame
03	Straight PC with Flat Frame
13	Straight PC with Bracket Mount

Optional Bezel & Colors

For Snap-in Frame

A	Black
B	White
E	Yellow
F	Green
G	Blue
H	Gray

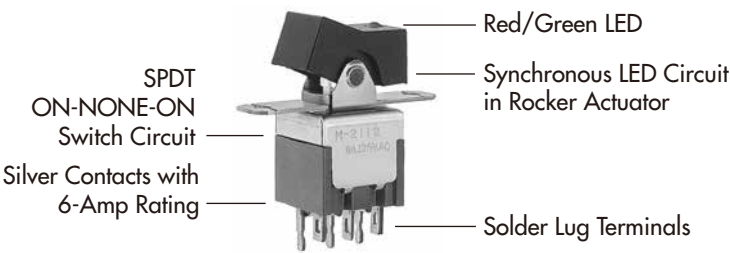
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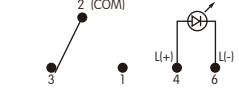
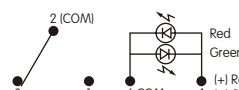
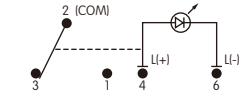
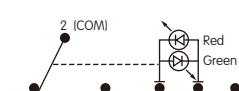
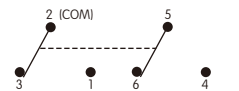

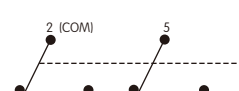

Switches are supplied without UL & CSA marking unless specified.
UL & CSA recognized only when ordered with marking on the switch.
Specific models, ratings, & ordering instructions are noted on the General Specifications page.

DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

M2112NCFW01



POLES & CIRCUITS & LED ILLUMINATION

Model	Pole & Throw	Toggle Position & Terminal Numbers			Schematics
		Down 	Center 	Up 	
M2112 Connected Power Terminals	SPDT	ON 2-3	NONE NONE	ON 2-1	<p>Notes: Terminal numbers are not actually on the switch. LEDs require an external power source.</p> <p>Isolated Single Color LED</p>  <p>Isolated Bicolor LED</p> 
LED Circuit	Isolated LEDs (see schematics) Connected LED Terminals	ON 4-6	NONE NONE	ON 4-6	
	Synchronous Single Color LED Connected LED Terminals	ON 4-6	NONE NONE	OFF OPEN	
	Synchronous Bicolor LED Connected LED Terminals	Red 5-6	NONE NONE	Green 5-4	
M2113 Connected Power Terminals	SPDT	ON 2-3	OFF OPEN	ON 2-1	<p>Synchronous Single Color LED</p>  <p>Synchronous Bicolor LED</p> 
LED Circuit	Isolated LEDs (see schematics) Connected LED Terminals	ON 4-6	ON 4-6	ON 4-6	
	Synchronous Single Color LED Connected LED Terminals	ON 4-6	OFF OPEN	ON 4-6	
	Synchronous Bicolor LED Connected LED Terminals	Red 5-6	OFF OPEN	Green 5-4	
M2122 Connected Power Terminals	DPDT	ON 2-3 5-6	NONE NONE	ON 2-1 5-4	<p>Isolated Single Color LED</p>  <p>Isolated Bicolor LED</p> 
LED Circuit	Isolated LEDs (see schematics) Connected LED Terminals	ON 7-9	NONE NONE	ON 7-9	
	Synchronous Single Color LED Connected LED Terminals	ON 7-9	NONE NONE	OFF OPEN	
	Synchronous Bicolor LED Connected LED Terminals	Red 8-9	NONE NONE	Green 8-7	
M2123 Connected Power Terminals	DPDT	ON 2-3 5-6	OFF OPEN	ON 2-1 5-4	<p>Synchronous Single Color LED</p>  <p>Synchronous Bicolor LED</p> 
LED Circuit	Isolated LEDs (see schematics) Connected LED Terminals	ON 7-9	ON 7-9	ON 7-9	
	Synchronous Single Color LED Connected LED Terminals	ON 7-9	OFF OPEN	ON 7-9	
	Synchronous Bicolor LED Connected LED Terminals	Red 8-9	OFF OPEN	Green 8-7	

LED COLORS & SPECIFICATIONS

The electrical specifications shown are determined at a basic temperature of 25°C. LED circuit is isolated and requires an external power source. If the source voltage exceeds the rated voltage, a ballast resistor is required. The resistor value can be calculated by using the formula in Supplement Section. The LED is an integral part of the switch and not available separately. Bicolor LED is translucent white when unlit.

The electrical specifications shown are determined at a basic temperature of 25°C. LED circuit is isolated and requires an external power source. If the source voltage exceeds the rated voltage, a ballast resistor is required. The resistor value can be calculated by using the formula in Supplement Section. The LED is an integral part of the switch and not available separately. Bicolor LED is translucent white when unlit.		Rockers				Paddles				Units
		Single Color			Bicolor	Single Color			Bicolor	
		<div>C</div>	<div>E</div>	<div>F</div>	<div>CF</div>	<div>C</div>	<div>E</div>	<div>F</div>	<div>CF</div>	
		Red	Yellow	Green	Red/Green	Red	Yellow	Green	Red/Green	
Maximum Forward Current	I _{FM}	30	30	30	25	25	30	25	30/25	mA
Typical Forward Current	I _F	20	20	20	20	20	20	20	20/20	mA
Forward Voltage	V _F	2.2	2.1	2.2	1.7/2.0	2.25	2.1	2.2	2.0/2.2	V
Maximum Reverse Voltage	V _{RM}	4	4	4	—	5	5	5	—	V
Current Reduction Rate Above 25°C	ΔI _F	0.38	0.38	0.38	0.33/0.33	0.33	0.40	0.33	0.43/0.38	mA/°C
Ambient Temperature Range		-10° ~ +55°C				-25° ~ +50°C		-25° ~ +70°C		

LED CIRCUIT, ROCKER, & MOUNTING TYPE COMBINATIONS

R

Rocker with
Isolated LED Circuit

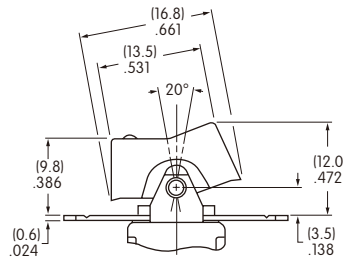
N

Rocker with
Synchronous LED Circuit

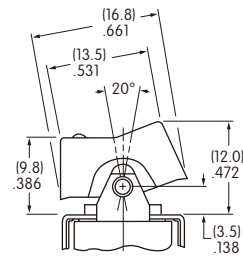
Material: Polyamide

Finish: Matte

Color: Black

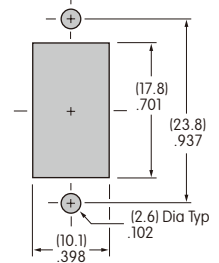


Flat Frame combines with
Terminal codes 01, 02, & 03.



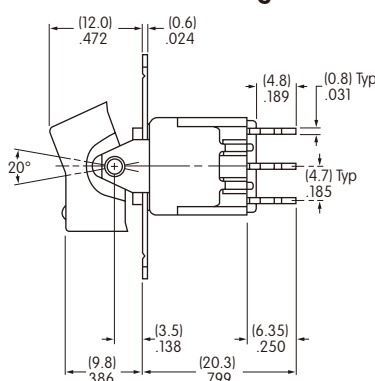
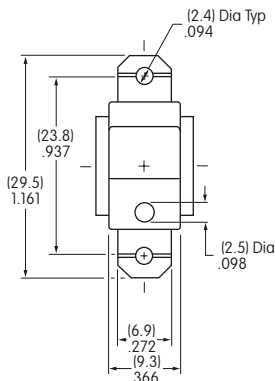
Bracket combines with
Terminal code 13.

Maximum Panel Thickness
.126" (3.2mm)

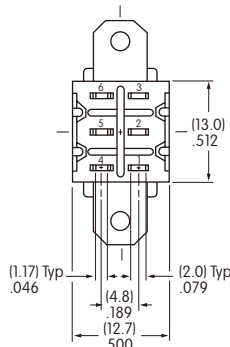


TYPICAL ROCKER SWITCH DIMENSIONS

Single Pole



Single color LED switch does not have terminal 5.

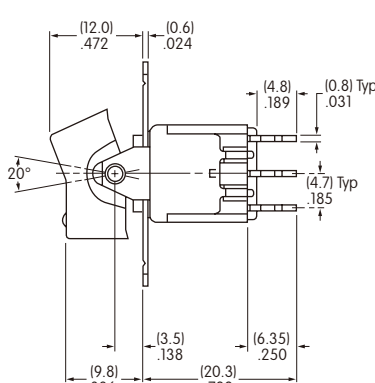
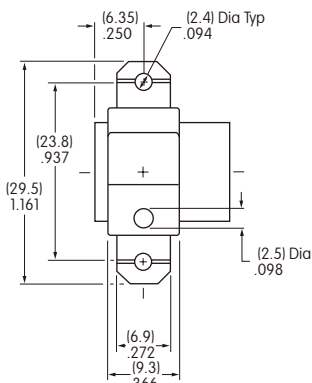


Solder Lug

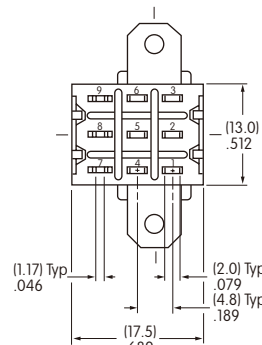


M2112NCFW01

Double Pole



Single color LED switch does not have terminal 8.

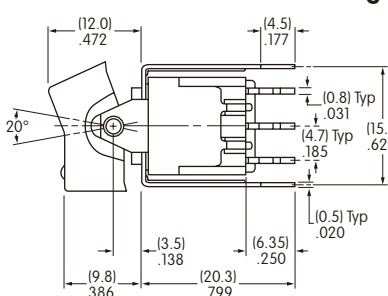
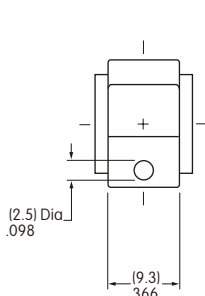


Solder Lug

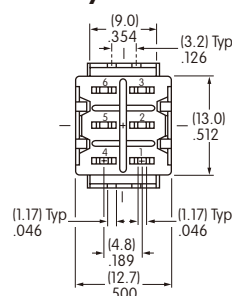


M2122NCFW01

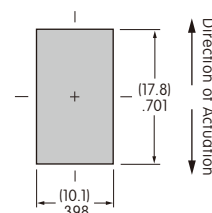
Single Pole Only



Single color LED switch does not have terminal 5. Silver contact material is standard.



Straight PC • Bracket



Direction of Actuation



M2112NCFW13

LED CIRCUIT, PADDLE, & MOUNTING TYPE COMBINATIONS

P

Paddle with Isolated LED Circuit

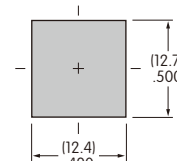
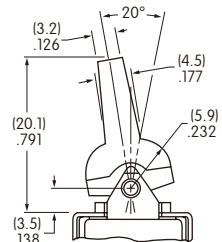
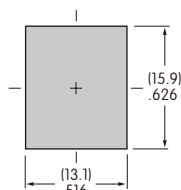
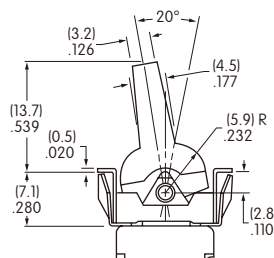
J

Paddle with Synchronous LED Circuit

Maximum Panel Thickness
.039" ~ .126" (1.0 ~ 3.2mm)
without Bezel
.039" ~ .098" (1.0 ~ 2.5mm)
with Bezel

Maximum
Panel
Thickness
.126" (3.2mm)

Material: Polyamide
Finish: Matte
Color: Black



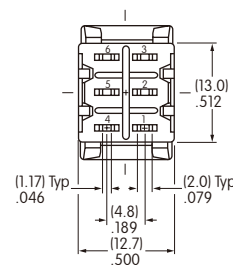
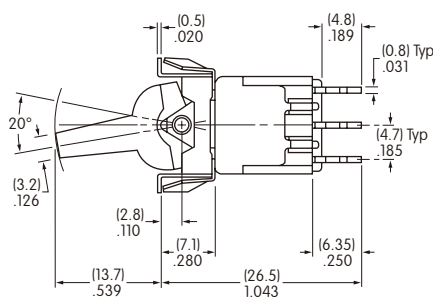
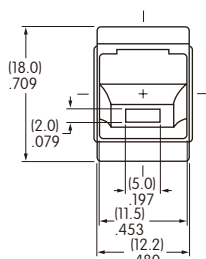
Snap-in combines with Terminal codes 01, 02, & 03

Bracket combines with Terminal code 13

TYPICAL PADDLE SWITCH DIMENSIONS

Solder Lug • Snap-in

Single Pole Only

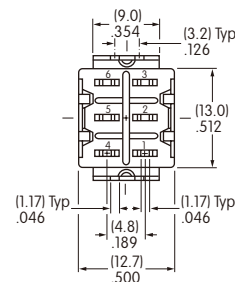
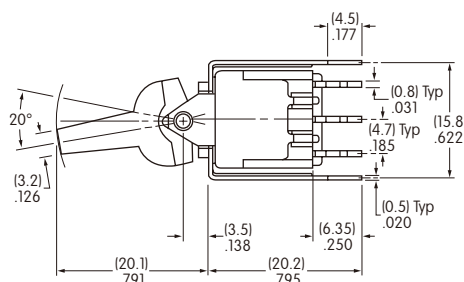
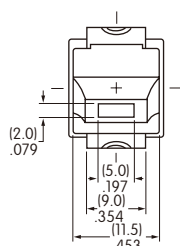


M2112JCFW01

Single color LED switch does not have terminal 5.

Straight PC • Bracket

Single Pole Only



M2112JCFW13

Silver contact material is standard. Single color LED switch does not have terminal 5.

CONTACT MATERIALS & RATINGS

W

Silver over Silver

Power Level

6A @ 125V AC & 3A @ 250V AC

G

Gold over Brass or Copper

Logic Level

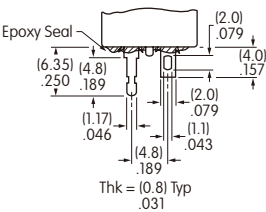
0.4VA maximum @ 28V AC/DC maximum

Complete explanation of operating range in Supplement section.

TERMINALS

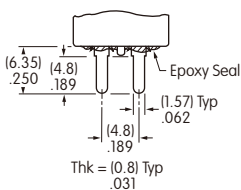
01

Solder Lug with Turret LED Terminal



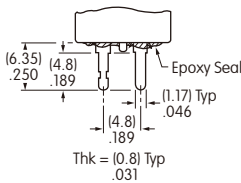
02

Quick Connect

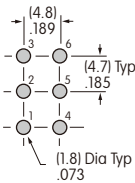


03

Straight PC with Turret LED Terminal

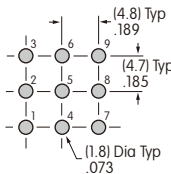


Single Pole



Single color LED & isolated bicolor LED switches do not have terminal 5.

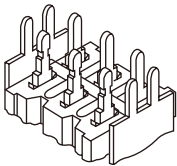
Double Pole



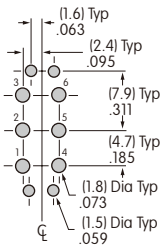
Single color LED & isolated bicolor LED switches do not have terminal 8.

13

Straight PC with Bracket & Turret LED Terminal



Single Pole



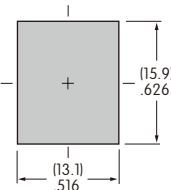
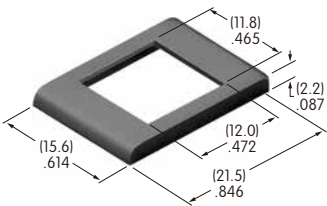
Single color LED & isolated bicolor LED switches do not have terminal 5.

OPTIONAL BEZEL & COLORS

AT2107 Bezel for Snap-in Panel Frame

Material: Polyamide

Finish: Matte



Colors Available:

A

Black

B

White

E

Yellow

F

Green

G

Blue

H

Gray