General Specifications

Electrical Capacity

Resistive Load: 10A @ 125V AC or 6A @ 250V AC
Motor Load: 400W @ 125V AC
Lamp Load: 2A @ 125V AC for On-Off-On circuit & 3A @ 125V AC for other circuits

Other Ratings

Contact Resistance: 10 milliohms maximum
Insulation Resistance: 1,000 megohms minimum @ 500V DC
Dielectric Strength: 2,000V AC minimum between contacts for 1 minute minimum;
4,000V AC minimum between contacts & case for 1 minute minimum
Mechanical Life: 50,000 operations minimum
Electrical Life: 25,000 operations minimum
Angle of Throw: 25°

Materials & Finishes

Frame: Stainless steel
Case/Base: Diallyl phthalate resin (UL94V-0)
Movable Contacts: Silver alloy with silver plating
Stationary Contacts: Pure silver with silver plating
Terminals: Copper with silver plating

Environmental Data

Operating Temp Range: –10°C through +85°C (+14°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)

Installation

Soldering Time & Temp: Wave Soldering (Straight PC): See Profile A in Supplement section.
Manual Soldering: See Profile A in Supplement section.
Cleaning: These devices are not process sealed. Hand clean locally using alcohol based solution.

Standards & Certifications

Flammability Standards: UL94V-0 rated case/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.
Add "/CUL" before dash in part number to order cULus recognized switch.
All models recognized at 10A @ 125V AC & 6A @ 250V 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 models certified at 10A @ 125V AC & 6A @ 250V AC.

VDE: License No. 119174
All models approved at 10A @ 125V AC & 6A @ 250V AC.
Marking on switch is standard. All models meet EN 61058-1 standard.

Distinctive Characteristics

Meets EN 61058-1 standard.

Contacts of special silver alloy resist arcing and guarantee stable electrical contact and long life.

Stainless steel frame resists corrosion and increases environmental safety.

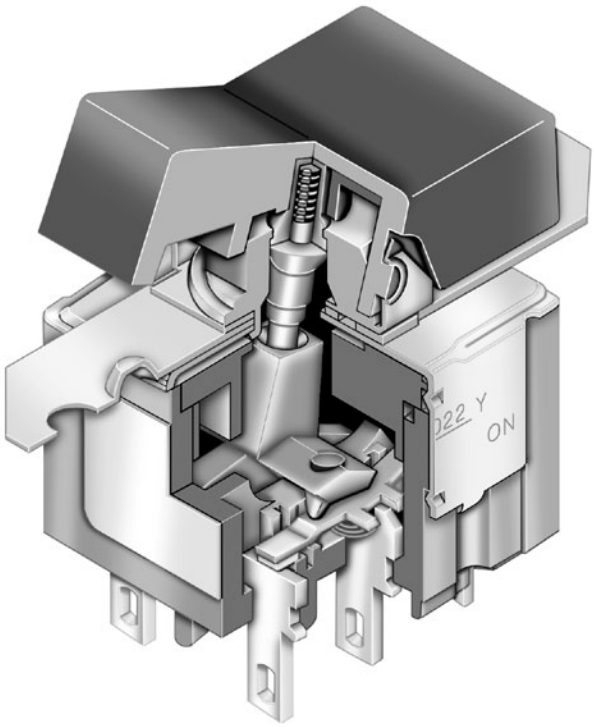
High insulating barriers increase isolation of circuits in double pole devices and provide added protection to contact points.

Case/base of heat resistant resin meets UL94V-0 flammability standard.

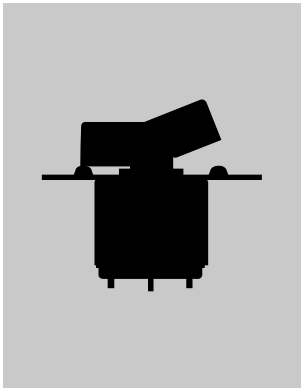
Prominent external insulating barriers increase insulation resistance and dielectric strength.

Clinching of the frame to the case well above the base and terminals provides 4,000V dielectric strength.

Epoxy sealed terminals prevent entry of flux, solvents, and other contaminants.



Actual Size



TYPICAL SWITCH ORDERING EXAMPLE

P20 | 22 | Y | ☐ — J | C

Poles & Circuits

11	SPST	ON	NONE	OFF
12	SPDT	ON	NONE	ON
13	SPDT	ON	OFF	ON
21	DPST	ON	NONE	OFF
22	DPDT	ON	NONE	ON
23	DPDT	ON	OFF	ON

Terminals

No Code	Solder Lug*
P	Straight PC
Z	.187″ (4.75mm) Quick Connect

Paddle/Rocker Frames

N	Frame for Small Caps
Y	Frame for Large Caps

Rocker/Paddle Caps

For N Frame	
D	.365″ (9.27mm) Wide Rocker
E	.365″ (9.27mm) Wide Paddle
For Y Frame	
J	.595″ (15.11mm) Wide Rocker
H	.595″ (15.11mm) Wide Paddle

Cap Colors

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

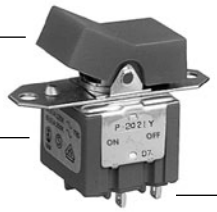
IMPORTANT:

VDE is marked on all models. 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 General Specifications page.

* Wire harness & cable assemblies offered only in Americas

DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

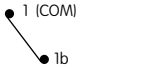
P2022Y-JC

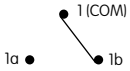


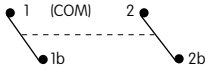
POLES & CIRCUITS

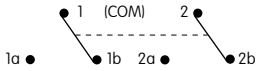
Pole	Model	Rocker Position: Down	Rocker Position: Center	Rocker Position: Up	Connected Terminals: Down	Connected Terminals: Center	Connected Terminals: Up	Throw & Schematics
SP	**P2011**	ON	NONE	OFF	1-1b	OPEN	OPEN	SPST
SP	**P2012** **P2013**	ON ON	NONE OFF	ON ON	1-1b	OPEN	1-1a	SPDT
DP	**P2021**	ON	NONE	OFF	1-1b 2-2b	OPEN	OPEN	DPST
DP	**P2022** **P2023**	ON ON	NONE OFF	ON ON	1-1b 2-2b	OPEN	1-1a 2-2a	DPDT

Note: Terminal numbers are on the switch.





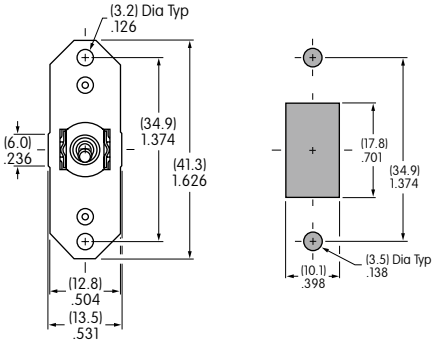




ROCKER/PADDLE FRAMES

N **Frame for Small Actuator**

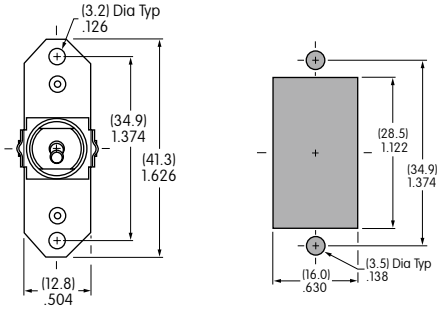
Using AT4148 & AT4149



Maximum Panel Thickness: .126" (3.2mm)

Y **Frame for Large Actuator**

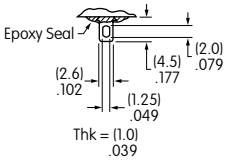
Using AT4156 & AT4157



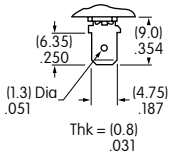
Maximum Panel Thickness: .126" (3.2mm)

TERMINALS

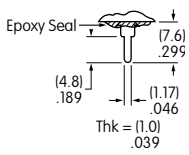
No Code **Solder Lug**



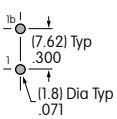
Z **.187" (4.75mm) Quick Connect**



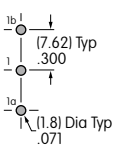
P **Straight PC**



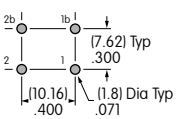
SPST



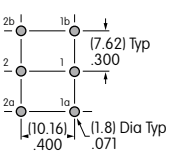
SPDT



DPST



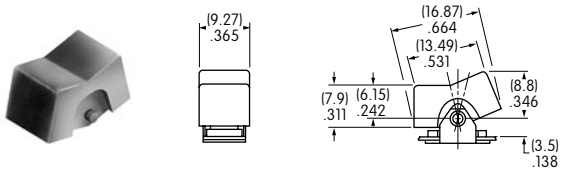
DPDT



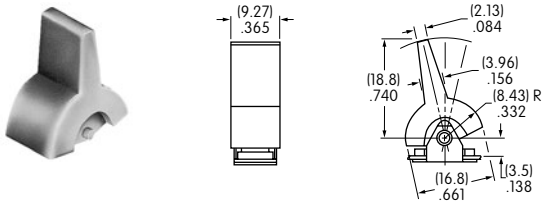
ROCKER/PADDLE CAPS

For N Frame

D **AT4148**
.365" (9.27mm) Wide Rocker

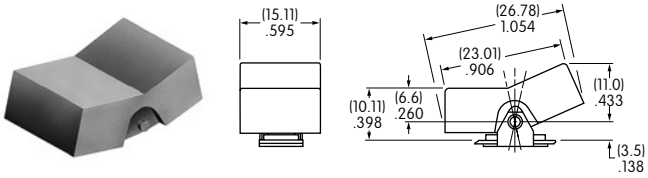


E **AT4149**
.365" (9.27mm) Wide Paddle

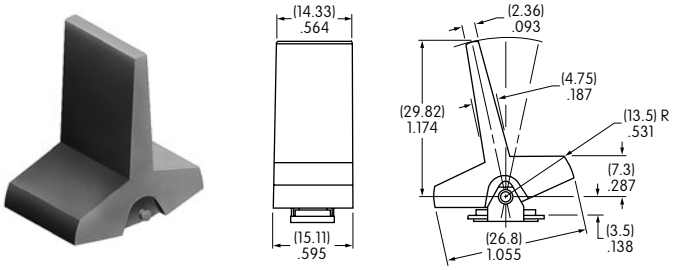


For Y Frame

J **AT4156**
.595" (15.11mm) Wide Rocker



H **AT4157**
.595" (15.11mm) Wide Paddle



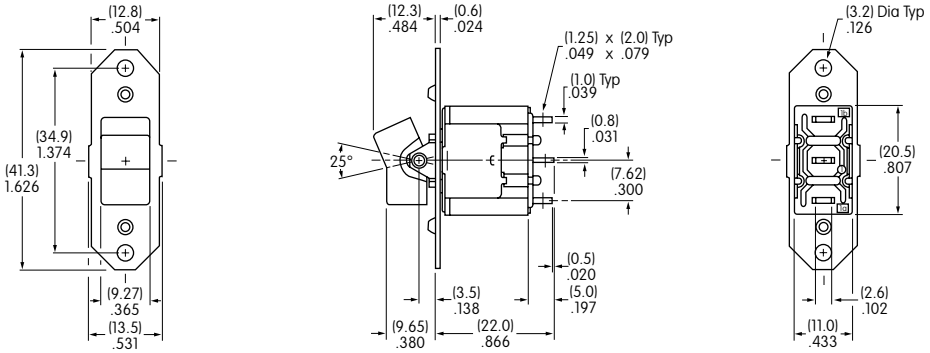
Cap Colors Available: **A** Black **B** White **C** Red **E** Yellow **F** Green **G** Blue **H** Gray

Material: Polyamide Finish: Matte

TYPICAL SWITCH DIMENSIONS

N Frame

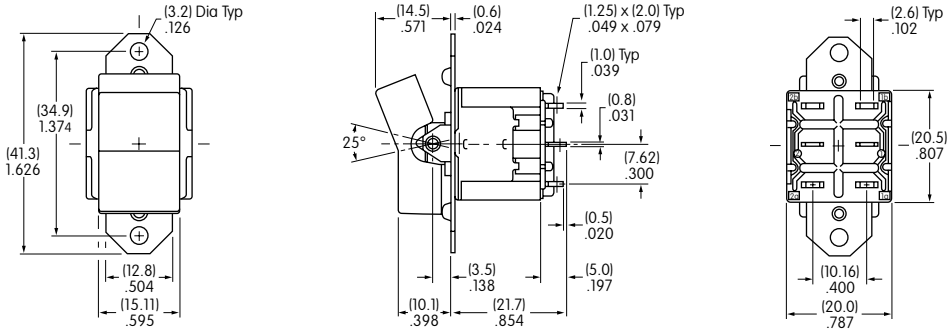
P2012N-DC



P2011 & P2021 models do not have terminals 1a & 2a.

Y Frame

P2022Y-JC



P2011 & P2021 models do not have terminals 1a & 2a.