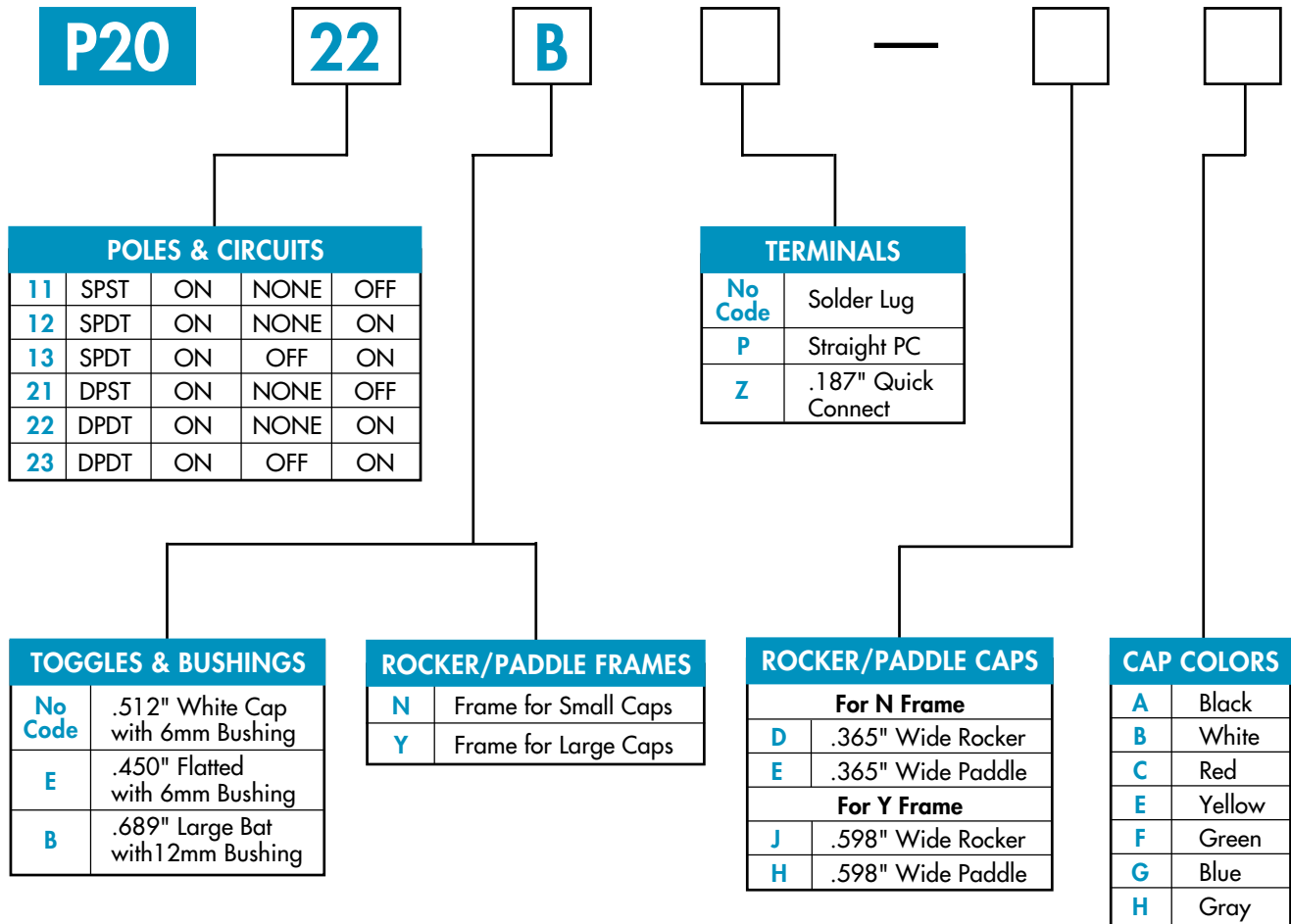


TYPICAL SWITCH ORDERING EXAMPLES

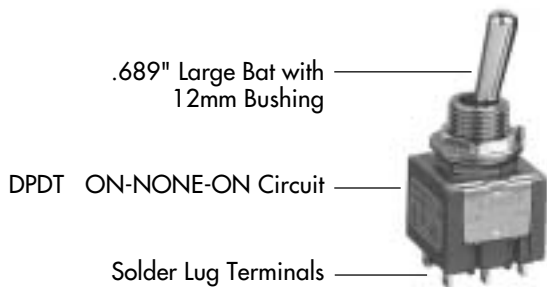


IMPORTANT:

VDE, SEMKO, & SEV are marked on all P series models. Switches are supplied without UL & CSA marking unless specified. Specific models & ratings noted on General Specifications page.

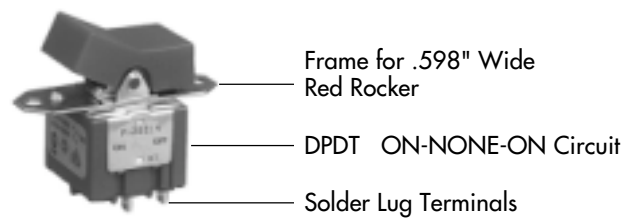
DESCRIPTION FOR TYPICAL TOGGLE SWITCH ORDERING EXAMPLE

P2022B



DESCRIPTION FOR TYPICAL ROCKER SWITCH ORDERING EXAMPLE

P2022Y-JC



GENERAL SPECIFICATIONS

Electrical Capacity

Resistive Load:	10A @ 125V AC or 6A @ 250V AC
Inductive Load:	6A @ 125/250V AC for UL Recognition
Motor Load:	400W @ 125V AC
Lamp Load:	2A @ 125V AC for On-Off-On circuit & 3 A @ 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; 4,000V AC minimum between contacts & case
Mechanical Life:	100,000 operations minimum for toggles; 50,000 operations minimum for paddles & rockers
Electrical Life:	25,000 operations minimum
Angle of Throw:	25°

Materials & Finishes

Toggle Cap:	Brass with nickel plating
Lever:	Brass with chrome plating
Bushing:	Brass with nickel plating
Case/Frame:	Stainless steel
Base:	Diallyl phthalate resin
Movable Contacts:	Silver alloy with silver plating
Stationary Contacts:	Pure silver with silver plating
Terminals:	Copper with silver plating

Environmental Data

Operating Temp Range:	-25°C through +70°C (-13°F through +158°F)
Humidity:	90 ~ 95% humidity for 96 hours @ 40°C (104°F)
Vibration:	10 ~ 55Hz with peak-to-peak amplitude of 1.5mm traversing the frequency range and returning in 1 minute; 3 right angled directions for 2 hours
Shock:	50g acceleration (tested in 6 right angled directions, with 5 shocks in each direction)







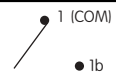

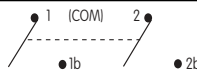

Installation

Soldering Time & Temperature:	3 seconds @ 350°C
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Standards & Certifications

Flammability Standards:	UL94V-0 for base
UL Recognized:	All toggles at 10A @ 125V AC & 6A @ 250V AC; UL File No. E44145
CSA Certified:	All toggles at 10A @ 125V AC & 6A @ 250V AC; CSA File No. LR23535
VDE Approved:	Toggles, rockers, & paddles at 10A @ 125V AC & 6A @ 250V AC; License Nos. 33306, 37640, & 37641
SEMKO Approved:	All toggles at 10A @ 125V AC & 6A @ 125/250V AC; License No. 9725181/01 All rockers & paddles at 10A @ 125V AC & 6A @ 125/250V AC; License No. 9803298/01 P2013 [micro-gap] at 10A @ 125V AC & 6A @ 125/250V AC; License No. 9803298/02 P2013 & P2023 [micro-gap] at 10A @ 125V AC & 6A @ 125/250V AC; License No. 9725182/01
SEV Approved:	Toggles, rockers, & paddles at 10A @ 125V AC & 6A @ 125/250V AC; [P2013 for micro-switch only]; License No. 96,1 10535,05

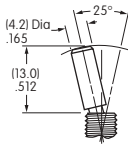
POLES & CIRCUITS

		Actuator Position () = Momentary			Connected Terminals			Throw & Schematics
Pole	Model	Down 	Center 	Up 	Down 	Center 	Up 	Note: Terminal numbers are on the switch.
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 

TOGGLES WITH BUSHINGS

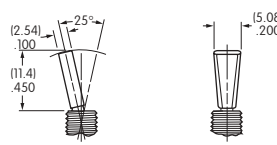
No Code

.512" White Cap with 6mm Bushing



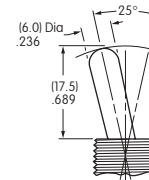
E

.450" Flatted with 6mm Bushing



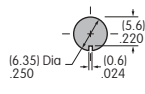
B

.689" Large Bat with 12mm Bushing

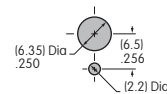


Panel Cutouts

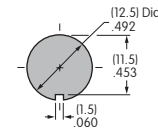
Panel Thickness with Keyway 3.4mm (.134") max.



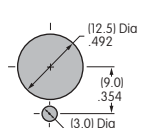
Panel Thickness with Locking Ring 2.6mm (.102") max.



Panel Thickness with Keyway 6.5mm (.256") max.



Panel Thickness with Locking Ring 5.5mm (.217") max.



Standard Hardware

For 6mm Bushing: 1 Locking Ring AT507
1 Internal Tooth Lockwasher AT509
2 Hex Nuts AT513M

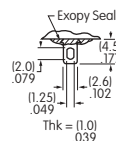
For 12mm Bushing: 1 Hex Face Nut AT503
1 Locking Ring AT506
1 Internal Tooth Lockwasher AT508
1 Hex Mounting Nut AT527M

TERMINALS

No Code

Solder Lug

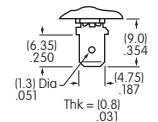
The .049" X .079" oblong hole accommodates 1 solid or stranded 18-gauge wire or 2 solid or stranded 20-gauge wires.



Z

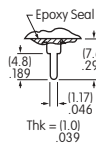
.187" Quick Connect

Matching receptacles available from AMP, Hollingsworth, and other manufacturers.

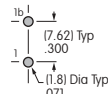


P

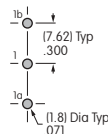
Straight PC



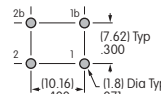
SPST



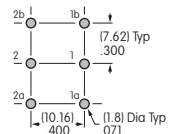
SPDT



DPST



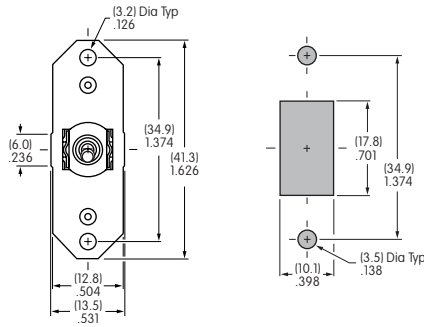
DPDT



ROCKER/PADDLE FRAMES

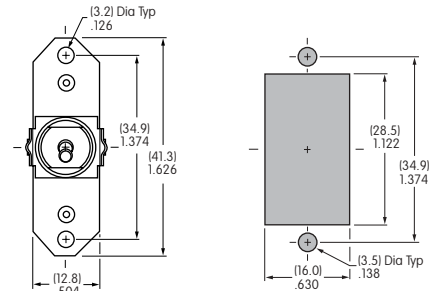
N Frame for Small Actuator

Using AT4148 & AT4149



Y Frame for Large Actuator

Using AT4156 & AT4157

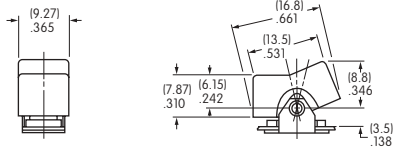


ROCKERS & PADDLES

For N Frame

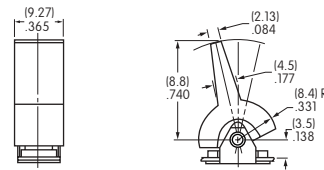
D AT4148 .365" Wide Rocker

Material: Polyamide
Finish: Matte



E AT4149 .365" Wide Paddle

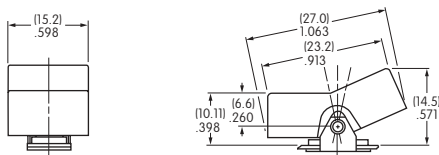
Material: Polyamide
Finish: Matte



For Y Frame

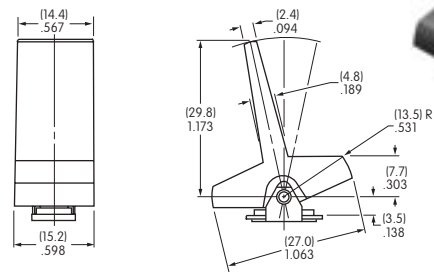
J AT4156 .598" Wide Rocker

Material: Polyamide
Finish: Matte



H AT4157 .598" Wide Paddle

Material: Polyamide
Finish: Matte



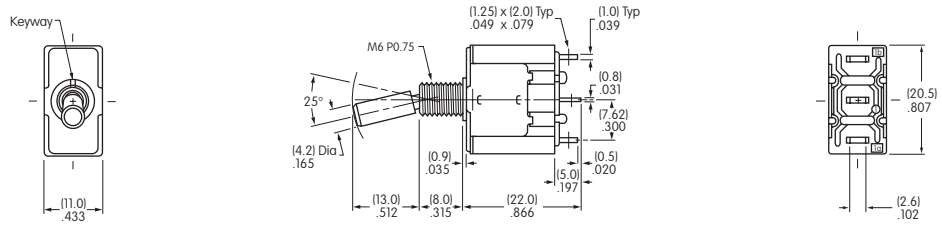
Cap Colors Available:

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

TYPICAL SWITCH DIMENSIONS

6mm Bushing

P2011, P2012, P2013

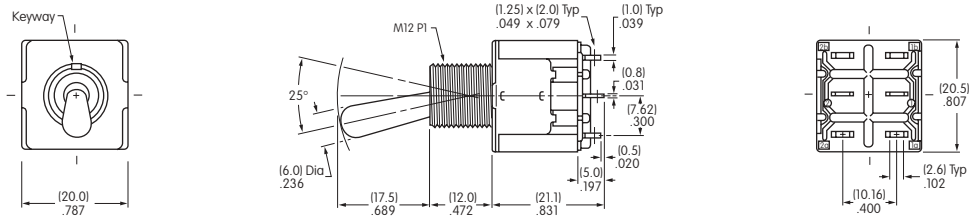


P2012

P2011 models do not have terminal 1a.

12mm Bushing

P2021B, P2022B, P2023B

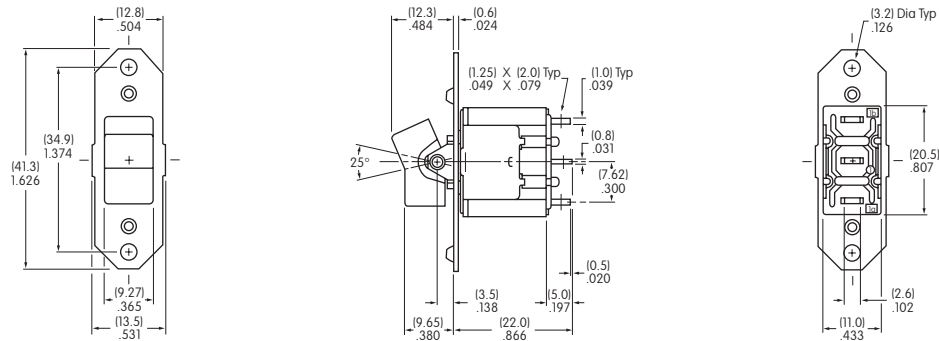


P2022B

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

N Frame

P2011N, P2012N, P2013N, P2021N, P2022N, P2023N

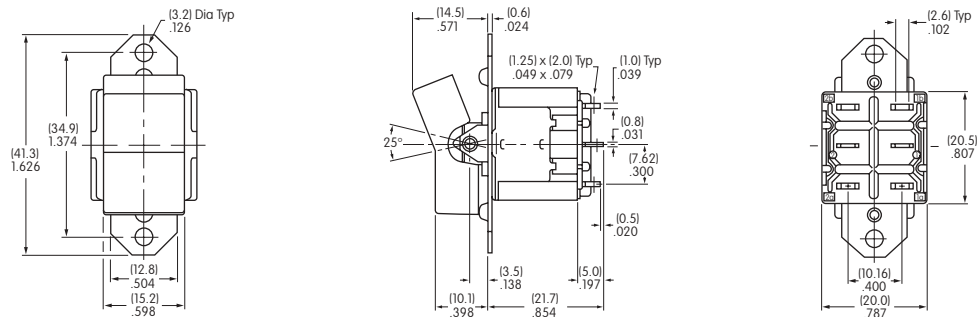


P2012N-DC

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

Y Frame

P2011Y, P2012Y, P2013Y, P2021Y, P2022Y, P2023Y



P2022Y-JC

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