General Specifications

Electrical Capacity

Power Level: 5A @ 125V AC, 3A @ 250V AC, & 3A @ 30V DC

Other Ratings

Contact Resistance: 10 milliohms maximum
Insulation Resistance: 200 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: 30,000 operations minimum
Electrical Life: 10,000 operations minimum
Nominal Operating Force: 9.94N for rockers & 4.41N for paddles
Angle of Throw: 24° for On-None-(On); 28° for all other circuits

Materials & Finishes

Lamp Terminals: Phosphor bronze with nickel plating

Environmental Data

Operating Temperature Range: –10°C through +50°C (+14°F through +122°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 3 right angled directions, with 3 shocks in each direction)

Installation

Cap Installation Force: 9.80N (2.2 lbf) for rockers;
19.61N (4.4 lbf) for paddle
Soldering Time & Temperature: Manual Soldering: See Profile A in Supplement section.

Standards & Certifications

UL: **File No. E44145 - Recognized only when ordered with marking on switch.**
Add "/U" or "/CUL" before first dash in part number to order UL recognized switch.
All models recognized at 5A @ 125V AC & 3A @ 250V AC.

Distinctive Characteristics

Industry's first miniature snap-in, lighted rocker switch.

Actuators in various styles operate with firm, well-defined movements.

Interlocking actuator prevents switch failure due to jamming or window locking.

Two bezel sizes adapt to varied panel cutouts.

Unique stainless steel retaining clips securely hold switches over a range of panel thicknesses, even when exposed to vibration.

Space conserving front panel mounting with minimum behind panel dimension of .902" (22.9mm).

Durable stainless steel housing prevents corrosion.

Isolated lamp circuit for incandescent, LED, and neon lamps. Front panel relamping.

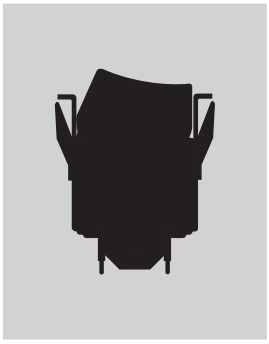
Built-in protective cover shields contacts from dust.

Epoxy sealed solder lug terminals lock out flux, dust, and other contaminants.

Extended lamp terminal for ease of wiring.

Matching indicators available.

Actual Size



Series MLW

Snap-in Miniature Rockers

LED COLOR CODES & SPECIFICATIONS

Single Element LED

AT622 LED

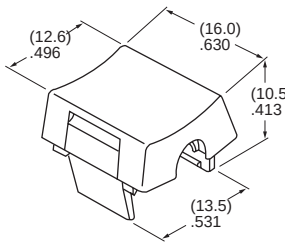
T-1¾ Pilot Slide Base

Resistor value calculation is shown in the Supplement.	Color	C Red	E Yellow	F Green
Maximum Forward Current	I_{FM}	30mA	30mA	30mA
Typical Forward Current	I_F	20mA	20mA	20mA
Forward Voltage	V_F	1.85V	2.0V	2.1V
Maximum Reverse Voltage	V_{RM}	5V	5V	5V
Current Reduction Rate Above 25°C	ΔI_F	0.40mA/°C	0.40mA/°C	0.40mA/°C
Ambient Temperature Range		−10°C ~ +50°C		

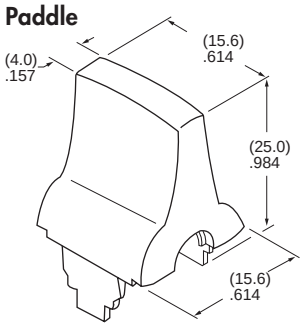
CAP TYPES & COLORS

For Incandescent or Neon Lamps

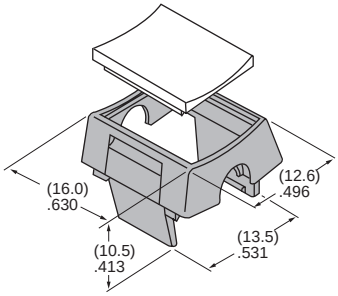
RA RB RC RD RE RF RG — **AT405 Rocker**



PA PB PC PD PE PF PG — **AT426 Paddle**



DB DC DD DF DG — **AT438 Design Rocker**



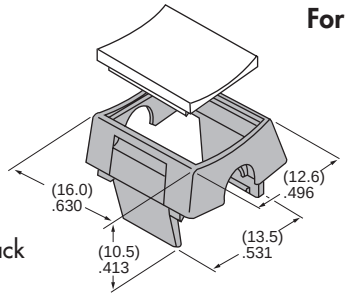
Material: Translucent Polycarbonate Standard Finish: Glossy
Black Rocker/Paddle not for use with lamp

Translucent Colored Filter
Opaque Black Rocker Base

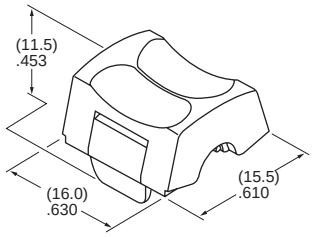
For LED

LB LC LE LF — **AT4125 LED Rocker**

Translucent Colored Diffuser and Opaque Black Rocker Base



SB SC SE SF — **AT4127 Sculptured Rocker**



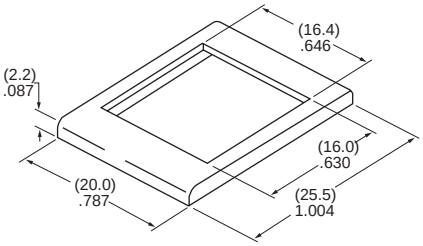
Material: Translucent Polycarbonate Standard Finish: Glossy

Color Codes: A Black B White C Red D Orange E Yellow F Green G Blue

OPTIONAL BEZELS

AT204 Standard Bezel .787" (20.0mm) Wide

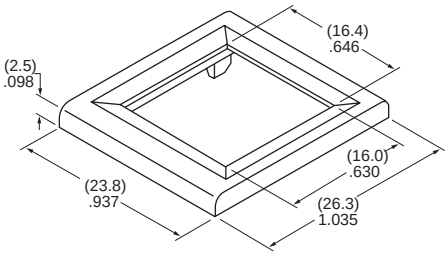
1A 1B 1C 1D 1E 1F 1G 1H



Material: Polycarbonate Standard Finish: Glossy

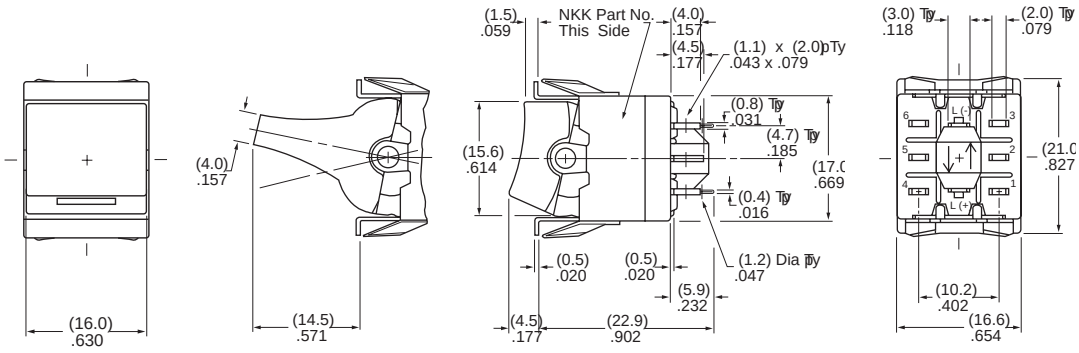
AT9201 Large Bezel .937" (23.8mm) Wide

2A 2B 2C 2D 2E 2F 2G 2H



Material: Polycarbonate Standard Finish: Glossy

TYPICAL SWITCH DIMENSIONS

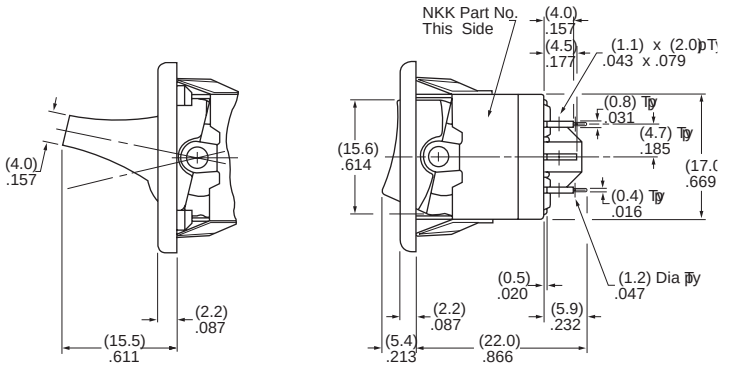


Without Bezel
Single & Double Pole

Actuator in UP position

Terminals 4, 5, & 6 are not on single pole models

MLW3022-12-PC

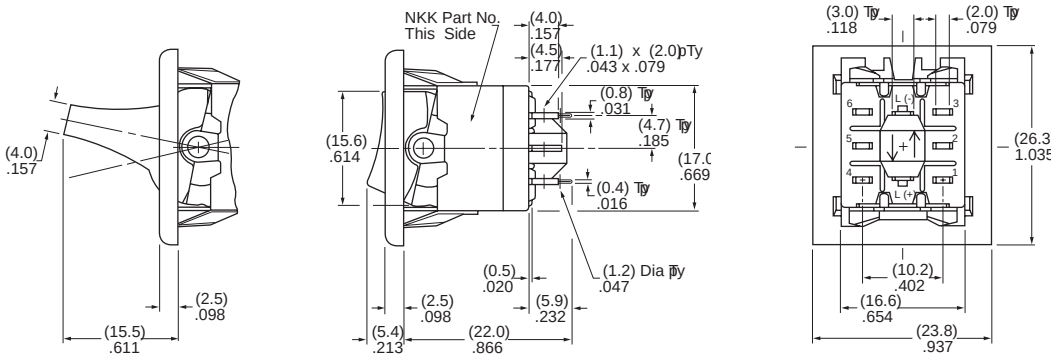


Standard Bezel
Single & Double Pole

Actuator in UP position

Terminals 4, 5, & 6 are not on single pole models

MLW3022-12-RC-1A

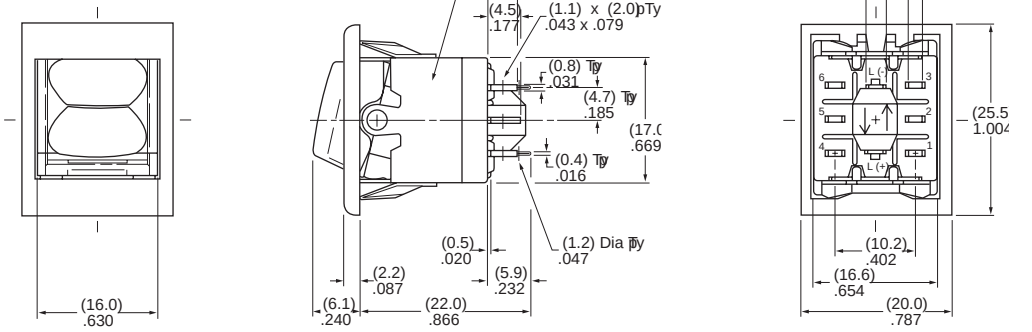


Large Bezel
Single & Double Pole

Actuator in UP position

Terminals 4, 5, & 6 are not on single pole models

MLW3022-12-PC-2A



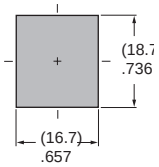
Sculptured Cap
Single & Double Pole

Actuator in UP position

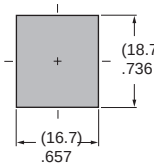
Terminals 4, 5, & 6 are not on single pole models

MLW3022-C-SC-1A

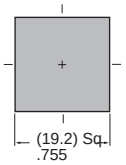
PANEL CUTOUTS & THICKNESSES



Without Bezel
.039″ ~ .157″ (1.0mm ~ 4.0mm)



With Standard Bezel AT204
.039″ ~ .118″ (1.0mm ~ 3.0mm)

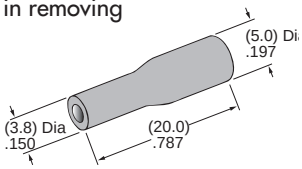


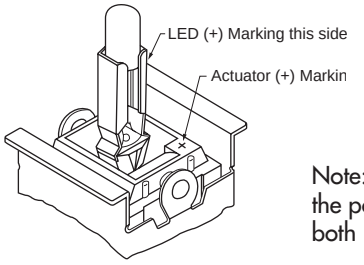
With Large Bezel AT9201
.039″ ~ .118″ (1.0mm ~ 3.0mm)

INSTALLATION & MAINTENANCE

Lamps and LEDs can be changed without removing the switch from the panel. The lamp extractor AT107 assists in removing lamps and LEDs.

AT107
Lamp Extractor

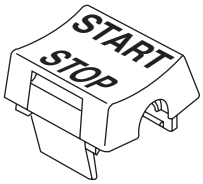




Note: When changing LEDs, match the positive polarity markings on both lamp base and actuator block.

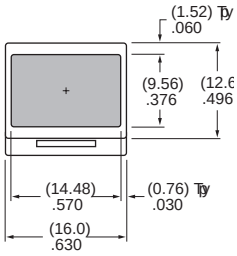
LEGENDS

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

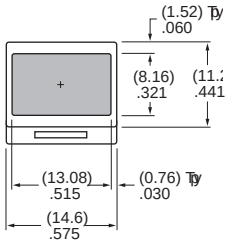


Recommended Print Method:
Pad Print
Epoxy based ink is recommended

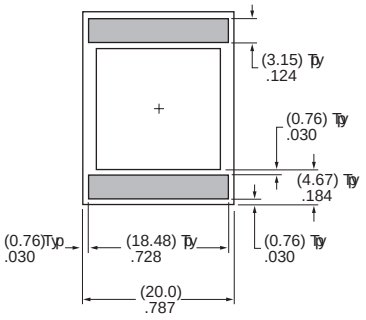
Rocker



Design Rocker & LED Rocker



Bezel



Shaded areas are printable areas.