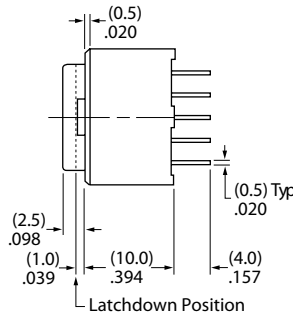
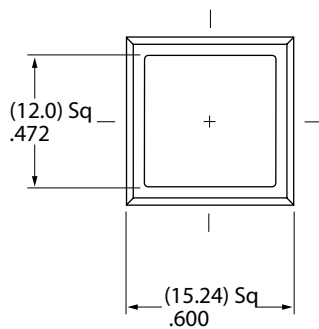


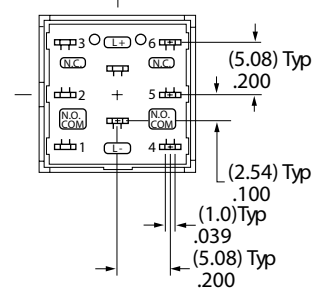
Low Profile Pushbuttons

UB Series

Square • PCB Mount



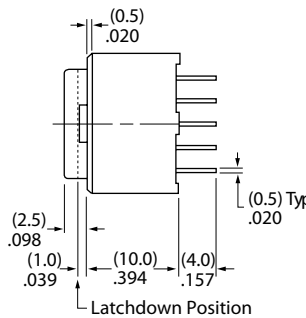
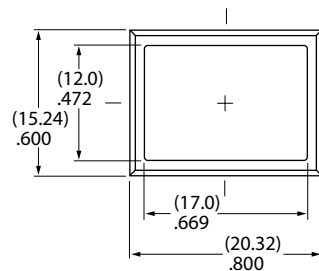
Single & Double Pole



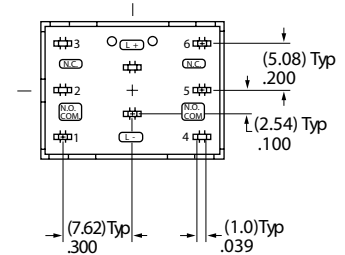
Single pole models do not have terminals 4, 5, & 6.

UB15SKG035C-CB

Rectangular • PCB Mount



Single & Double Pole



Single pole models do not have terminals 4, 5, & 6.

UB26RKG035D-DD

How to order:

UB

- | | |
|--------------------------------------|--------------------------------------|
| 1 POLES: | 6 LEADS: |
| 1 SPDT | Bright LED |
| 2 DPDT | 5C Red |
| | 5D Amber |
| 2 CIRCUITS: | 5F Green |
| 5 ON - (ON) (Momentary) | Super Bright LED |
| 6 ON - ON (with Latchdown) | 6B White |
| | 6F Green |
| 3 MOUNTING TYPES: | 6G Blue |
| PCB Mounting | |
| SK Square | 7 CAP TYPES & COLORS: |
| RK Rectangular | Full Face Illuminated Cap for |
| *Snap-in Mounting | Bright LED |
| KK Square | CB Red/White |
| NK Rectangular | CC Red/Red |
| NBK Rectangular with Slide Barriers | *CJ Red/Clear |
| | DB Amber/White |
| | DD Amber/Amber |
| | *DJ Amber/Clear |
| | FB Green/White |
| | * Not available with Rectangular cap |
| | FF Green/Green |
| | *FJ Green/Clear |
| | JB Clear/White |
| | JC Clear/Red |
| | JD Clear/Amber |
| | *JF Clear/Green |
| | *JJ Clear/Clear |
| 4 CONTACTS & RATINGS: | Full Face Illuminated Cap for |
| W Silver Rated 5A | Super Bright LED |
| @ 125/250V AC | JB Clear Lens / White Diffuser |
| G Gold Rated 0.4VA max | (For Square only; |
| @ 28V AC/DC max | see cap detail page) |
| | Spot Illuminated Cap for Bright & |
| 5 TERMINALS: | Super Bright LEDs |
| 01 Solder Lug (for Snap-in Mounting) | AB Black with White Window |
| 03 Straight PC | (Rectangular available for |
| | Bright only) |

General Specifications:

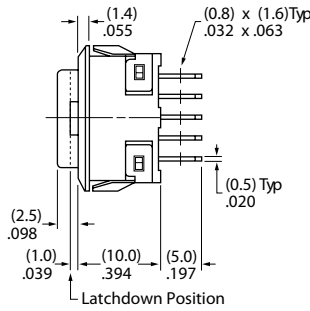
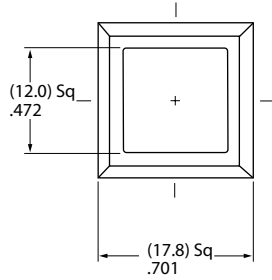
- Electrical Capacity (Resistive Load)**
- Power Level (code W): 5A @ 125/250V AC or 5A @ 30V DC
 Logic Level (code G): 0.4VA maximum @ 28V AC/DC maximum
 (Applicable Range 0.1mA ~ 0.1A @ 20mV ~ 28V)
 Note: Find additional explanation of operating range in Supplement section.
- Other Ratings**
- Contact Resistance: 50 milliohms maximum for silver; 100 milliohms maximum for gold
 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: 1,000,000 operations minimum for momentary;
 200,000 operations minimum for alternate action
 Electrical Life: 10,000 operations minimum for silver;
 100,000 operations minimum for silver with resistive load of 3A @ 125V AC
 200,000 operations minimum for gold
 Nominal Operating Force: Single Pole: 1.9N for Square & 1.9N for Rectangular
 Double Pole: 2.55N for Square & 3.1N for Rectangular
 Break before make
 Contact Timing: Travel: Pretravel .067" (1.7mm) ; Overtravel .024" (0.6mm);
 Total Travel .091" (2.3mm)
- Materials & Finishes**
- Housing/Bezel: Glass fiber reinforced polyamide (UL94V-0)
 Snap-in Frame: Stainless steel
 Movable Contact: Phosphor bronze
 Movable Contacts: Silver alloy or copper with gold plating
 Stationary Contacts: Silver alloy or copper with gold plating
 Switch Terminals: Phosphor bronze with silver or gold plating
 Lamp Terminals: **Brass with silver plating**
 Base: Glass fiber reinforced liquid crystal polymer (UL94V-0)
- Environmental Data**
- Operating Temp Range: -25°C through +50°C (-13°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/s²) acceleration (tested in 6 right angled directions, with 5 shocks in each direction)
- Installation**
- Cap Installation Force: 7.55N (1.70 lbf) maximum downward force on cap
 Soldering Time & Temp: Wave Soldering (PC version): 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 housing/bezel & base
 UL & C-UL Recognized: All single & double pole models recognized at 5A @ 125/250V AC or 0.014A @ 28V DC;
 UL File No. WOYR2.E44145; add "/U" to end of part number to order UL mark on switch.
 C-UL File No. WOYR8.E44145; add "/C-UL" to end of part number to order C-UL mark on switch
 CSA Certified: All single & double pole models certified at 5A @ 125/250V AC or 5A @ 30V DC or 0.4VA maximum @ 28V AC/DC maximum; CSA File No. 023535-0-000; add "/C" to end of part number to order CSA mark on switch.

Illuminated Switches

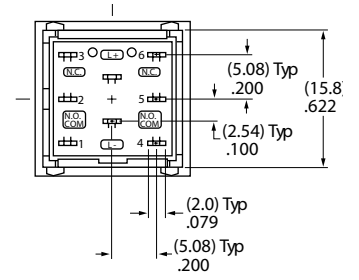
Low Profile Pushbuttons

UB Series

Square • Snap-in Mount • Built-in Bezel



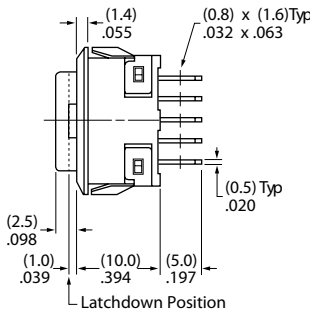
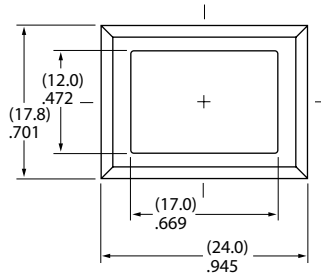
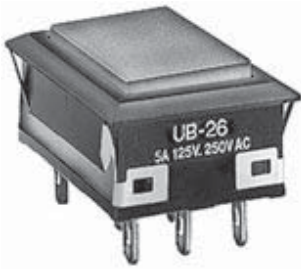
Single & Double Pole



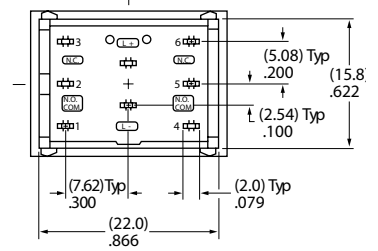
UB25KKW015C-CB

Single pole models do not have terminals 4, 5, & 6.

Rectangular • Snap-in Mount • Built-in Bezel



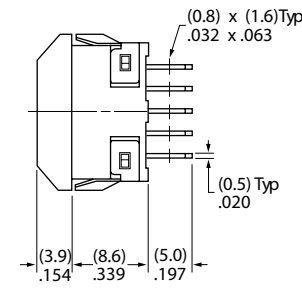
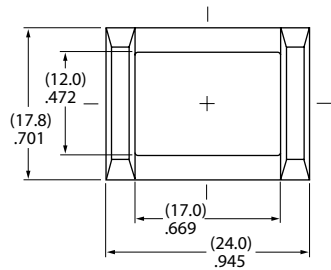
Single & Double Pole



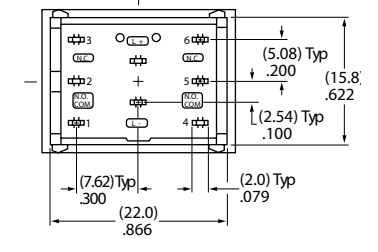
UB26NKW015F-FF

Single pole models do not have terminals 4, 5, & 6.

Rectangular • Snap-in Mount • Built-in Side Barriers



Single & Double Pole



UB25NBKW015F-FB

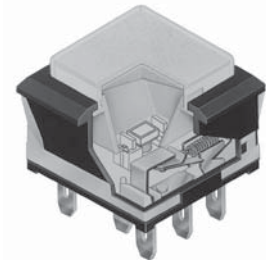
Single pole models do not have terminals 4, 5, & 6.

POLE & CIRCUIT

Pole	Model	Plunger Position () = Momentary		Connected Terminals		Throw & Switch/Lamp Schematics
		Normal	Down	Normal	Down	
SP	UB15 *UB16	ON ON	(ON) ON	1-3	1-2	Notes: Switch is marked with NC, NO, COM, L+ & L-. Lamp circuit is isolated and requires an external power source. SPDT
DP	UB25 *UB26	ON ON	(ON) ON	1-3 4-6	1-2 4-5	DPDT

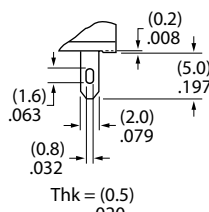
* When in latchdown position for the alternate circuit, cap position is .039" (1.0mm) above the housing.

CUTAWAY

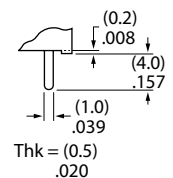


TERMINALS

01 Solder Lug

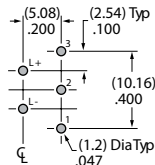
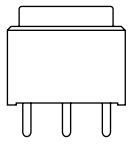


03 Straight PC

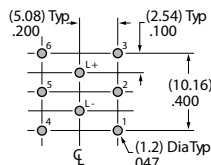


MOUNTING TYPES & SHAPES

SK Square

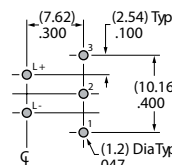
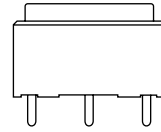


Single Pole

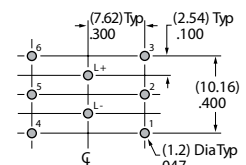


Double Pole

RK Rectangular

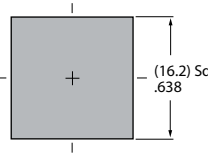
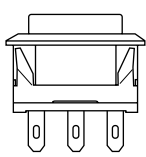


Single Pole

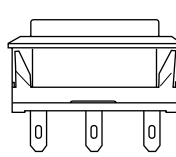


Double Pole

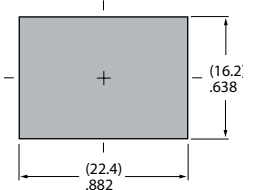
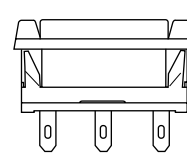
KK Square with Built-in Bezel



NK Rectangular with Built-in Bezel



NBK Rectangular with Built-in Side Barriers



Snap-in Mounting with Solder Lug terminals is the standard combination. Panel Thickness: .039 ~ .126" (1.0 ~ 3.2mm)

MOUNTING TYPES & SHAPES

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

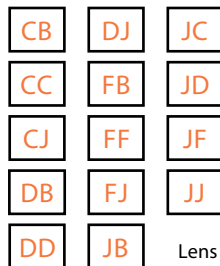
Super Bright LEDs are Electrostatic Sensitive	Attention Electrostatic Sensitive Devices	Bright			Super Bright			Unit
		5C	5D	5F	6B	6F	6G	
(+) (LED) (-)	Color	Red	Amber	Green	White	Green	Blue	
Forward Peak Current	I_{FM}	30	30	25	25	25	25	mA
Continuous Forward Current	I_F	20	20	20	20	20	20	mA
Forward Voltage	V_F	1.85	2.0	2.1	3.8	3.8	3.8	V
Reverse Peak Voltage	V_{RM}	5	5	5	5	5	5	V
Current Reduction Rate Above 25°C	ΔI_F	0.40	0.42	0.46	0.47	0.47	0.47	mA/°C
Ambient Temperature Range		-25° ~ +50°C			-25° ~ +50°C			

CAP TYPES & COLOR COMBINATIONS

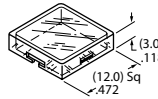
Full Face Illuminated Cap for Bright LED

Lens/Diffuser

Colors Available for Square Cap:



AT4074 Lens



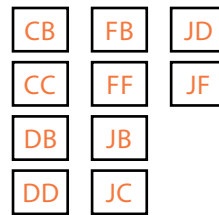
AT4075 Diffuser



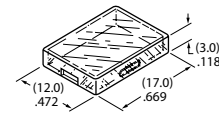
Lens & Diffuser Material: Polycarbonate Lens Finish: Glossy Diffuser Finish: Textured

Lens/Diffuser

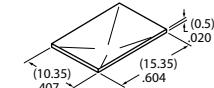
Colors Available for Rectangular Cap:



AT4117 Lens



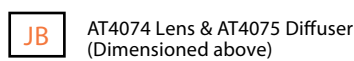
AT4118 Diffuser



Full Face Illuminated Cap for Super Bright LED

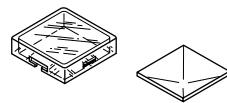
Lens/Diffuser

Colors Available for Square Cap:



AT4074 Lens & AT4075 Diffuser (Dimensioned above)

Lens & Diffuser Material: Polycarbonate Lens Finish: Glossy Diffuser Finish: Textured



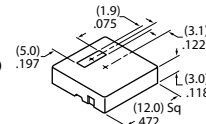
Rectangular lens & diffuser are not available for combining with super bright LED.

Spot Illuminated Caps

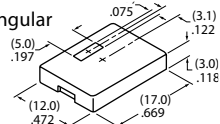
AB Black Cap with Translucent White Window for LED Display

Material: Polycarbonate Finish: Matte

AT4119 Square for Bright and Super Bright LED



AT4120 Rectangular for Bright LED



Color Codes: A Black B White C Red D Amber F Green J Clear

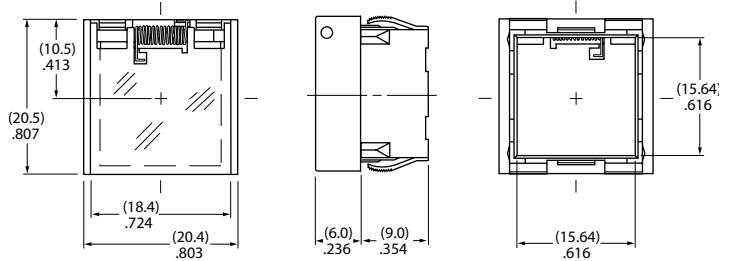
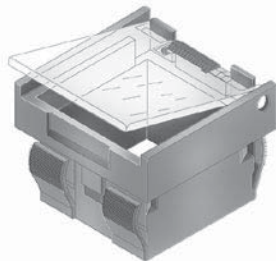
OPTIONAL ACCESSORIES

Spring Loaded Protective Guard for Snap-in Mounting of Square PCB Model

AT4173
 Square Protective Guard/
 Snap-in Frame

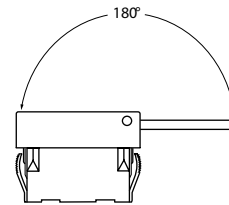
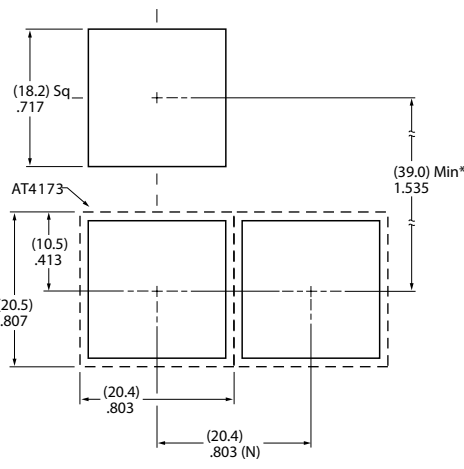
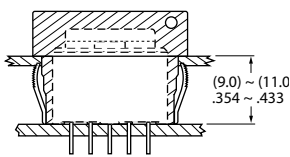
Opens 180°
 Closes automatically

Materials:
 Cover: Clear Polycarbonate
 Base: Black Polyamide
 Coil Spring: Stainless Steel

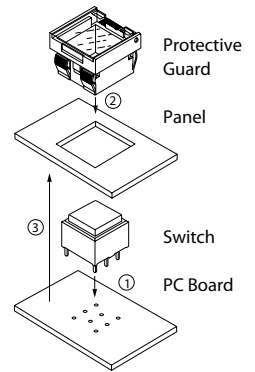


Recommended
 Panel Thickness:
 .039" ~ .126"
 (1.0mm ~ 3.2mm)

Recommended
 Panel-to-PCB Range:
 .354" ~ .433"
 (9.0mm ~ 11.0mm)



- Installation
- ① Install switch onto PC board.
 - ② Snap protective guard into panel.
 - ③ Join the two assemblies.

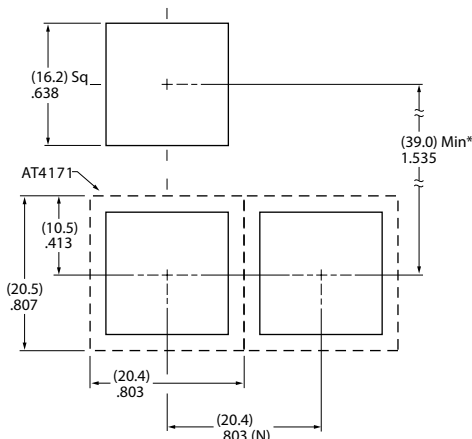
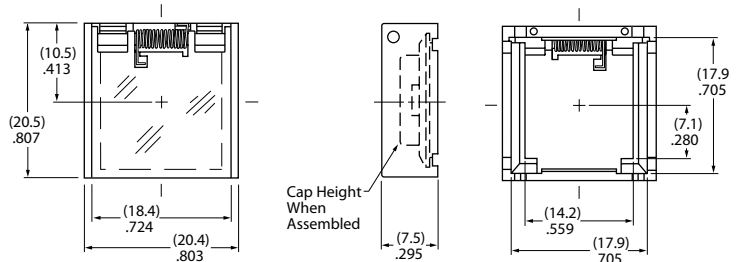
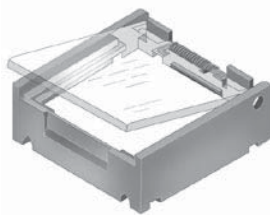


* Minimum dimension allows opening of cover to 180°

Spring Loaded Protective Guard for Square Snap-in Model

AT4171
 Square
 Protective Guard

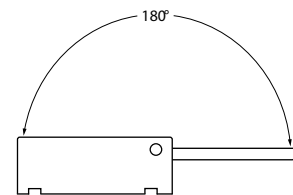
Opens 180°
 Closes automatically



* Minimum dimension allows opening of cover to 180°

Materials:
 Cover: Clear Polycarbonate
 Base: Black GFR Polyamide
 Coil Spring: Stainless Steel

Recommended Panel Thickness:
 .039" ~ .106" (1.0mm ~ 2.7mm)



OPTIONAL ACCESSORIES

Spring Loaded Protective Guard for Snap-in Mounting of Rectangular PCB Model

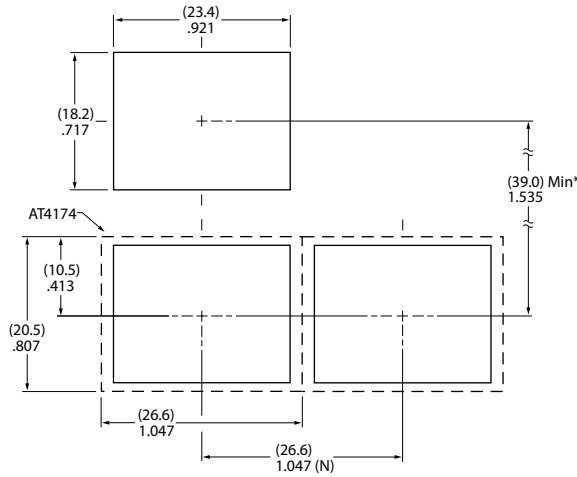
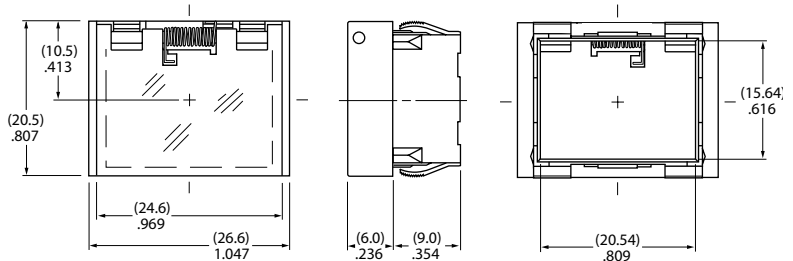
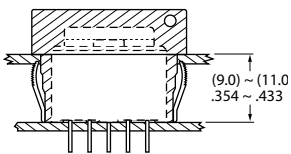
AT4174
Rectangular
Protective Guard/
Snap-in Frame

Opens 180°
Closes automatically

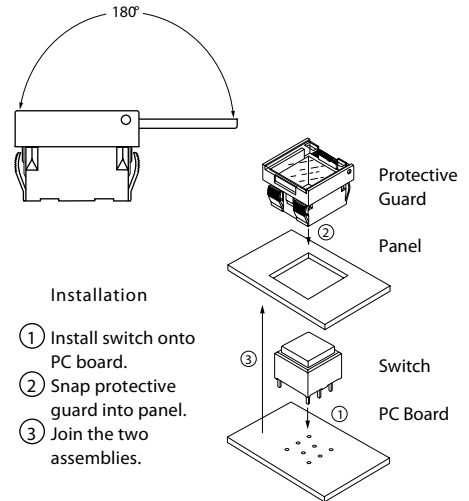
Materials:
Cover: Clear Polycarbonate
Base: Black Polyamide
Coil Spring: Stainless Steel

**Recommended
Panel Thickness:**
.039" ~ .126"
(1.0mm ~ 3.2mm)

**Recommended
Panel-to-PCB Range:**
.354" ~ .433"
(9.0mm ~ 11.0mm)



(N) = Number of switches * Minimum dimension allows opening of cover to 180°

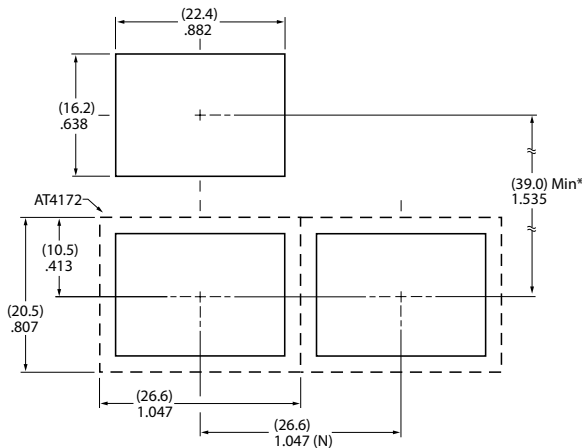
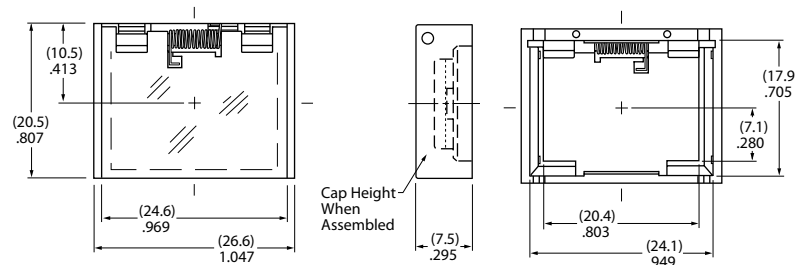
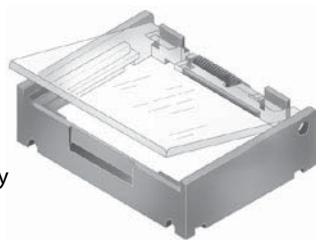


Illuminated Switches

Spring Loaded Protective Guard for Rectangular Snap-in Model

AT4172
Rectangular
Protective Guard

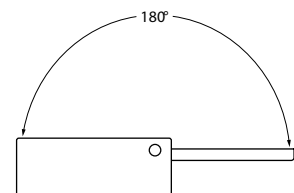
Opens 180°
Closes automatically



(N) = Number of switches * Minimum dimension allows opening of cover to 180°

Materials:
Cover: Clear Polycarbonate
Base: Black GFR Polyamide
Coil Spring: Stainless Steel

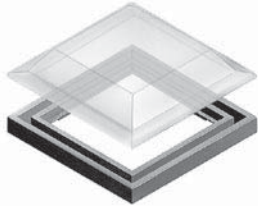
Recommended Panel Thickness:
.039" ~ .106" (1.0mm ~ 2.7mm)



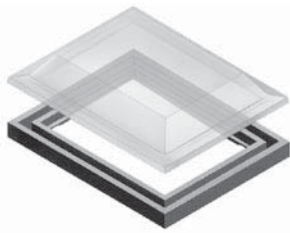
OPTIONAL ACCESSORIES

Dust Covers

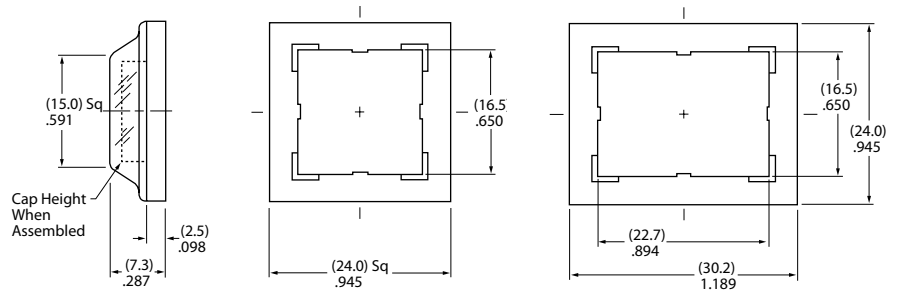
AT4001
Square



AT4011
Rectangular



Not for use with barrier type models (mounting code NBK)



Materials:
PVC with polyethylene gasket
(PVC loses pliability below 0°C (32°F).)

Recommended Panel Thickness: .039" ~ .098" (1.0mm ~ 2.5mm)

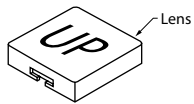
LEGENDS

General information and basic specifications are presented here for customers who want to do their own legends.

Suggested Printable Area for UB Lens & Film Insert

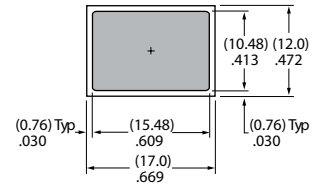
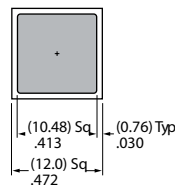
Recommended Methods: Laser Etch on clear lens, Screen Print or Pad Print on lens; Screen Print on film insert.
Epoxy based ink is recommended.

Square Cap

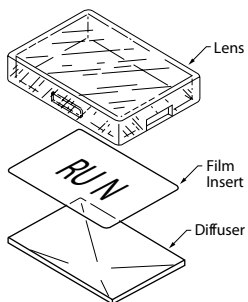


Shaded areas are printable areas.

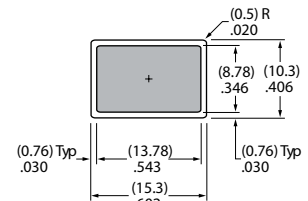
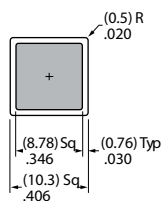
Lens



Rectangular Cap



Film Insert



Film Insert: Clear Polyester 4 mil max. thickness