

# A Series

## 4 & 5 Tumbler 1-4 Pole Switchlocks



### Agency Approvals

Agency	Agency File Number
UL US	E42363

Note: For Q contact material

### Specifications

<b>Contact Ratings</b>	Q contact material: Switch 2.5 A @ 125 V AC; 350 mA @ 125 V DC; 1 A @ 250 V AC (UL) Carry: 5 A continuous.
<b>Contact Resistance</b>	Below 20 m $\Omega$ typ. initial @ 2-4 V DC, 100 mA, for both silver and gold plated contacts.

### Electrical Characteristics

<b>Electrical Life</b>	15,000 make-and-break cycles at full load up to 300,000 detent operations.
<b>Insulation Resistance</b>	10 <sup>9</sup> $\Omega$ min.
<b>Dielectric Strength</b>	1,000 Vrms min. @ sea level.
<b>Indexing</b>	30°: 2-4 positions, 45° or 90°: 2-3 positions.
<b>Static Resistance</b>	Anti-static models exceed 20 KV DC static resistance @ sea level, lock body to terminals.
<b>Operating Temperature</b>	-30°C to 85°C.

### Description

A series switches are 4 & 5 tumbler, 1-4 pole switchlocks that are used regularly by designers of security alarm systems, medical equipment and computer servers. Available with multi-pole and multi-position options, the A series have a low-level power capability and are available with shorting or non-shorting contacts available.

### Features & Benefits

- Multi-pole and multi-position
- Shorting and non-shorting contacts available
- Low level and power capability
- PCB mounting

### Applications

- Security alarm systems
- Medical equipment
- Computer servers

### Materials

<b>Lock</b>	Zinc alloy with stainless steel facing
<b>Keys</b>	Two nickel plated brass keys with code number
<b>Switch Housing</b>	Glass filled 6/6 nylon (UL 94V-0).
<b>Movable Contact</b>	Q contact material: Coin silver, silver plated. See page 7 for additional contact materials
<b>Stationary Contacts &amp; Terminals</b>	Q contact material: Brass, silver plated. See page 7 for additional contact materials.
<b>Mounting Nut</b>	Zinc alloy
<b>Dress Nut</b>	Brass, nickel plated
<b>Terminal Seal</b>	Epoxy

#### Notes:

Any models supplied with Q or B contact material are RoHS compliant. Specifications and materials listed above are for switchlocks with standard options. For information on specific and custom switchlocks, consult Customer Service Center.

# A Series

## 4 & 5 Tumbler 1-4 Pole Switchlocks



### Ordering Number

To order, simply select desired option from each category and place in the appropriate box. For additional options not shown in catalog, consult Customer Service Center.

**Axxxxx - x - x - x - x - x - x - x - x**

**Switch and Lock Function**

- A21613:** DP, 30°, keypull pos. 1
- A11413:** SP, 90°, keypull pos. 1
- A31413:** 3P, 90°, keypull pos. 1
- A3141U:** 3P, 90°, keypull pos. 1 & 2
- A11513:** SP, 45°, keypull pos. 1
- A31513:** 3P, 45°, keypull pos. 1
- A3151U:** 3P, 45°, keypull pos. 1 & 3
- A21582:** DP, 45°, keypull pos. 1
- A11613:** SP, 30°, keypull pos. 1
- A1161U:** SP, 30°, keypull pos. 1 & 4
- A12112:** SP, 45°, keypull pos. 1
- A42112:** 4P, 45°, keypull pos. 1

**Keying**

- 2:** Two nickel plated brass keys

**Lock Type**

- A:** 4 tumbler lock
- G:** 5 tumbler lock with anti-static switch
- Y:** 4 tumbler lock with anti-static switch

**Lock Finish**

- 2:** Stainless steel facing
- 1:** Nickel plated with removable dress nut
- 8:** Gloss black facing

**Shorting/Non-Shorting**

- N:** Non-shorting contacts
- S:** Shorting contacts

**Seal**

- None:** No seal
- E:** Epoxy seal

**Contact Material**

- Q:** Silver
- B:** Gold

**Mounting/Lock Style**

- N:** With nut
- R:** With removable dress nut

**Terminations**

- Z:** Solder lug
- C:** PC Thru-hole

# A Series

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### Switch and Lock Function

No. Poles	Model No.	Connected Terminals				Key Pull Positions	Lock Configuration	Indexing
		POS. 1	POS. 2	POS. 3	POS. 4			
SP 3P	A11413 <sup>1</sup> A31413	A-1 A-1, B-5, C-9	A-4 A-4, B-8, C-12	-	-	Position 1		90°
3P	A314AU	A-1, B-5, C-9	A-4, B-8, C-12	-	-	Positions 1 & 2		90°
SP 3P	A11513 <sup>1</sup> A31513	A-1 A-1, B-5, C-9	A-2 A-2, B-6, C-10	A-4 A-4, B-8, C-12	-	Position 1		45°
3P	A3151U	A-1, B-5, C-9	A-2, B-6, C-10	A-4, B-8, C-12	-	Positions 1 & 3		45°
DP	A21582	A-4, C-10	A-5, C-11	A-2, C-8	-	Position 1		45°
SP DP	A11613 <sup>1</sup> A21613	A-1 A-1, C-7	A-2 A-2, C-8	A-3 A-3, C-9	A-4, C-10	Position 1		30°
SP	A1161U	A-1	A-2	A-3	A-4	Positions 1 & 4		30°
SP 4P	A12112 <sup>1</sup> A42112	A-1, A-1, B-4, C-7, D-10	A-2, A-2, B-5, C-8, D-11	-	-	Position 1		45°

**Notes:**

1. Switchlock models A114XX, A115XX, A116XX and A12112 with 'C' terminations have additional terminal no. 8 as switch support only. This terminal is not connected electrically inside switch.

All models with all options when ordered with 'Q' contact material. AX14 models not available with 'S' shorting contacts.

**Legend**

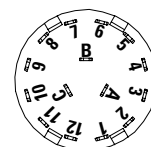
- = Detent Positions (30°, 45° or 90°)
- ⊙ = Key pull possible in these positions.
- ⊙ = Stop Positions

### Terminal Numbers

4P Model



3P Model



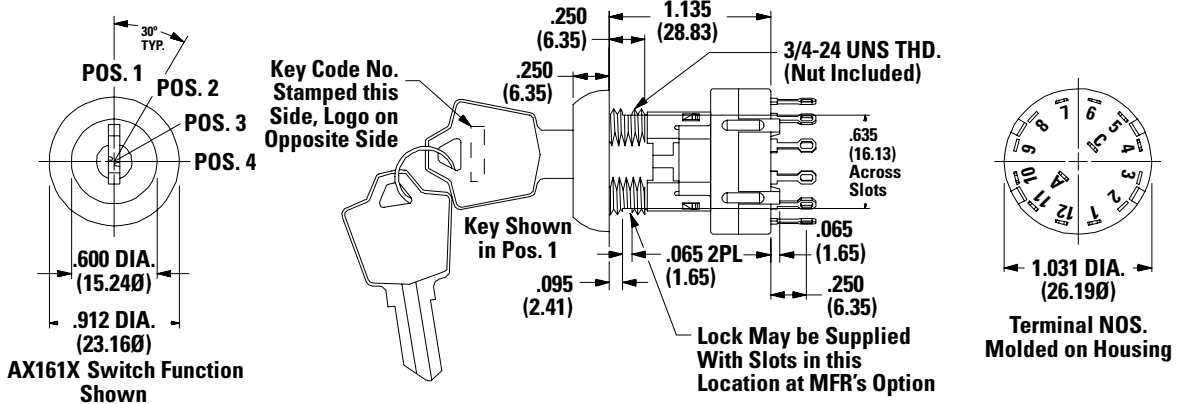
SP Model (omit terminals B, C & D)

DP Model (omit terminals B & D)

Terminal numbers molded on housing bottom.

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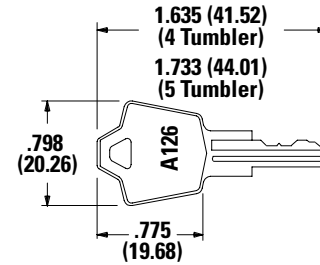


Note: Part number shown: A116132Y2NZNQ

### Keying

Option Code	Keying Options	Code No. On Key	Code No. On Lock
2	2 nickel plated brass keys	Yes	No

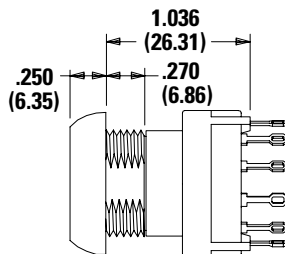
Notes:  
All orders keyed alike, standard. For more than one key code, replacement keys, or other special features, consult Customer Service Center.



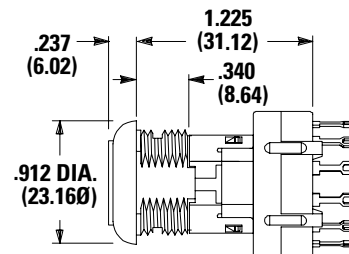
Notes: Key head shape subject to change without notice.  
Key part number: 115140126

### Lock Type

#### Option Code A 4 Tumbler Lock with Removable Dress Nut



#### Option Code G 5 Tumbler Lock with Anti-Static Switch



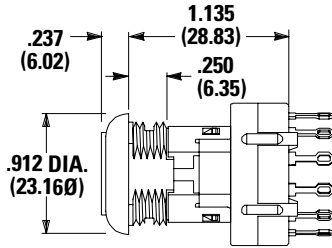
Notes: Not available with AX23 models.

# A Series

## 4 & 5 Tumbler 1-4 Pole Switchlocks



### Option Code Y 4 Tumbler Lock with Anti-Static Switch



### Available Option Combinations

Lock Types	Mounting Styles	
	N	R
G	•	-
A	-	•
Y	•	-

Notes: For available option combinations, see page 7.

### Lock Finish

2 Stainless Steel

1 Nickel

8 Gloss Black



### Available Option Combinations

Finish Options	Lock Types			Mounting Styles	
	G	A	Y	N	R
1	-	•	-	-	•
2	•	-	•	•	-
8	•	•	•	-	•

Notes: For available option combinations, see page 7.

### Shorting/Non-Shorting

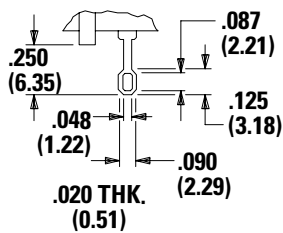
**N** Non-Shorting Contacts (break-before-make)

**S** Shorting Contacts (make-before-break)

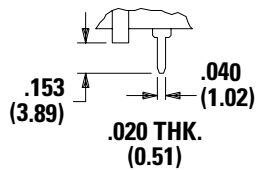
Notes: Not available with AX14 models

### Terminations

#### Z Solder Lug

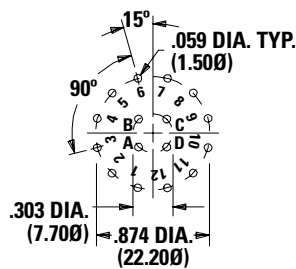


#### C PC Thru-hole

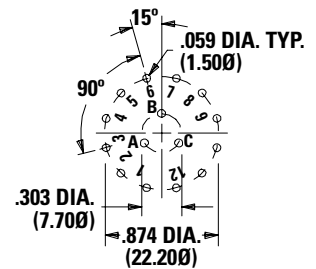


### PC Mounting

#### 4P Model



#### 3P Model



Notes: SP model (omit terminals B, C, D) DP model (omit terminals B & D)

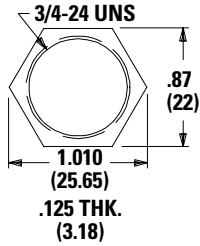
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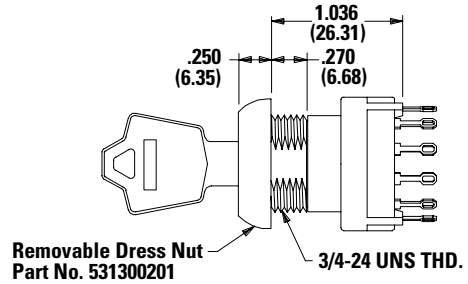
### Mounting/Lock Style

#### N With Nut

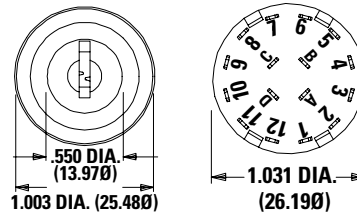
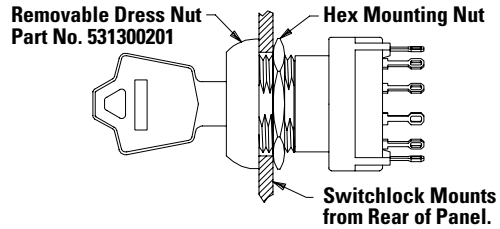
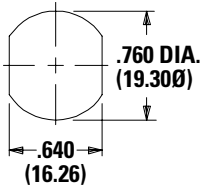


Note: Nut part number: 937C00000

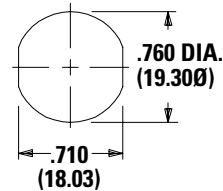
#### R Removable Dress Nut



#### Panel Mounting



#### Panel Mounting



### Typical Installation

Install hex nut with enough clearance to allow for dress nut and panel. Place switch through cutout in rear of panel. Install and tighten dress nut by hand, then tighten hex nut. Always tighten assembly with back of panel hex nut to avoid damaging front of panel.

# A Series

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### Mounting Information (All Models)

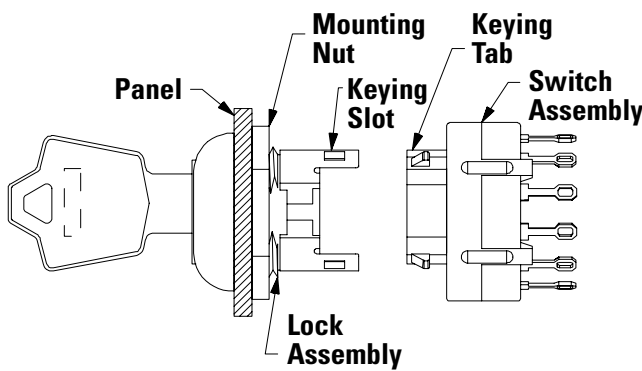
#### Panel Thickness

Mounting Styles	A & Y Lock Types	G Lock Types
N	0.105 (2.67) max.	0.195 (4.95) max.
R	0.125 (3.18) max.	0.215 (5.46) max.

#### Available Option Combinations

Mounting Styles	Lock Finishes			Lock Types		
	1	2	8	G	A	Y
N		•	•	•		•
R	•		•		•	

### Switch and Lock Assembly Instructions



1. Place lock assembly in mounting hole on panel, secure with mounting nut.
2. Align keying tab on switch assembly with keying slot on lock assembly.
3. Snap assemblies together.
4. Switch installation is permanent. Switch cannot be removed from lock after assembly. Attempting to separate switch and lock may cause damage to switchlock.

### Contact Material

Option Code	ROHS Compliant <sup>1</sup>	ROHS Compatible <sup>1</sup>	Contact and Terminal Material		Rating
Q	Yes		Silver <sup>3</sup>	Power	Q contact material: Switch 2.5 A @ 125 V AC; 350 mA @ 125 V DC; 1 A @ 250 V AC (UL) Carry: 5 A continuous.
B	Yes		Gold <sup>2</sup>	Low Level / Dry Circuit	0.4 VA Max. @ 20 V AC or DC max.

**Notes:**

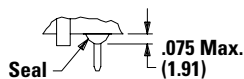
1. See Technical Data section of this catalog for RoHS compliant and compatible definitions and specifications.
2. Movable Contact: Copper alloy, with gold plate over nickel plate. Stationary Contacts & Terminals: Brass, with gold plate over nickel plate.
3. Movable Contact: Coin silver, silver plated. Stationary Contacts & Terminals: Brass, silver plated (standard with all termination options).

All models **C** **RU** **US** with all options when ordered with 'Q' contact material.

#### Seal

**None** No Seal

**E** Epoxy Seal



#### Available Hardware



**Key Code:** A126  
 4 Tumbler  
 Part No. (One Key)  
 115140126  
**Material:** Brass  
**Finish:** Nickel plate

**Key Code:** D001  
 5 Tumbler  
 Part No. (One Key)  
 115441001  
**Material:** Brass  
**Finish:** Nickel plate

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