

A Series

4 & 5 Tumbler 1-4 Pole Switchlocks



Agency Approvals

Agency	Agency File Number
UL US	E42363

Note: For Q contact material

Specifications

Contact Ratings	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.
Contact Resistance	Below 20 m Ω typ. initial @ 2-4 V DC, 100 mA, for both silver and gold plated contacts.

Electrical Characteristics

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

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

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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.

Axxxxxx - x - x - x - x - x - x - x		
Switch and Lock Function		Seal
A21613: DP, 30°, keypull pos. 1		None: No seal
A11413: SP, 90°, keypull pos. 1		E: Epoxy seal
A31413: 3P, 90°, keypull pos. 1		Contact Material
A31411U: 3P, 90°, keypull pos. 1 & 2		Q: Silver
A11513: SP, 45°, keypull pos. 1		B: Gold
A31513: 3P, 45°, keypull pos. 1		Mounting/Lock Style
A31511U: 3P, 45°, keypull pos. 1 & 3		N: With nut
A21582: DP, 45°, keypull pos. 1		R: With removable dress nut
A11613: SP, 30°, keypull pos. 1		Terminations
A11611U: SP, 30°, keypull pos. 1 & 4		Z: Solder lug
A12112: SP, 45°, keypull pos. 1		C: PC Thru-hole
A42112: 4P, 45°, keypull pos. 1		
Keying		Shorting/Non-Shorting
2: Two nickel plated brass keys		N: Non-shorting contacts
		S: Shorting contacts
Lock Type		Lock Finish
A: 4 tumbler lock		2: Stainless steel facing
G: 5 tumbler lock with anti-static switch		1: Nickel plated with removable dress nut
Y: 4 tumbler lock with anti-static switch		8: Gloss black facing

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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 ¹ 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 ¹ 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 ¹ 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 ¹ 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.

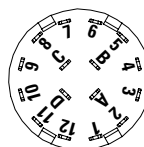
All models with all options when ordered with 'Q' contact material. AX14 models not available with 'S' shorting contacts.

Legend

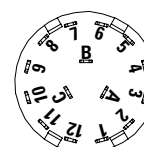
- = Detent Positions (30°, 45° or 90°)
- ⊙ = Key pull possible in these positions.
- ↑ ⊙ = Stop Positions

Terminal Numbers

4P Model



3P Model



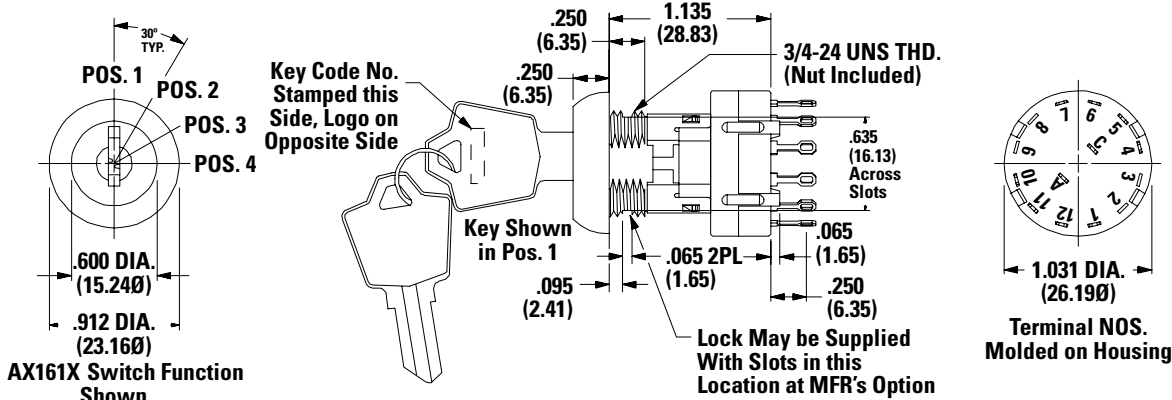
SP Model (omit terminals B, C & D)

DP Model (omit terminals B & D)

Terminal numbers molded on housing bottom.

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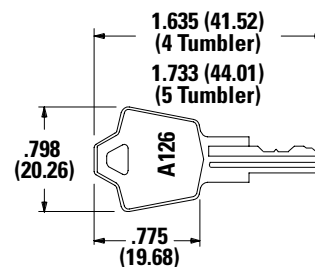


Note: Part number shown: A116132Y2NZNQ

Keying

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

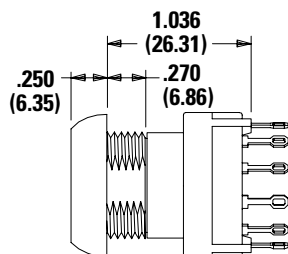
Notes:
All orders keyed alike, standard. For more than one key code, replacement keys, or other special features, consult Customer Service Center.



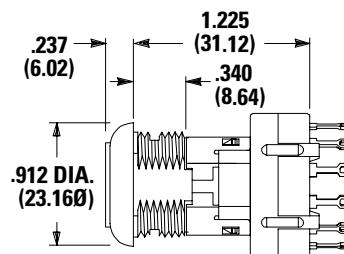
Notes: Key head shape subject to change without notice.
Key part number: 115140126

Lock Type

Option Code A 4 Tumbler Lock with Removable Dress Nut



Option Code G 5 Tumbler Lock with Anti-Static Switch



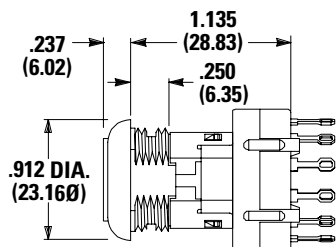
Notes: Not available with AX23 models.

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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

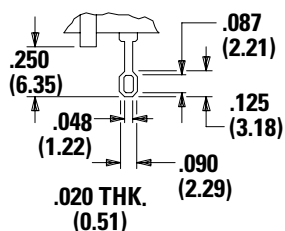
N Non-Shorting Contacts (break-before-make)

S Shorting Contacts (make-before-break)

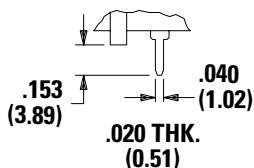
Notes: Not available with AX14 models

Terminations

Z Solder Lug

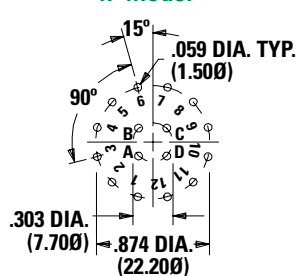


C PC Thru-hole

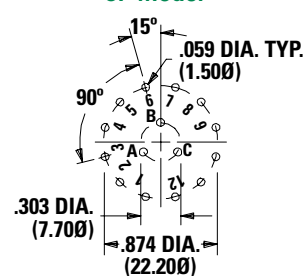


PC Mounting

4P Model



3P Model



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

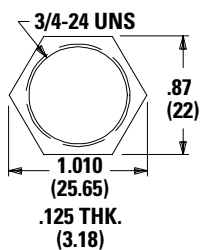
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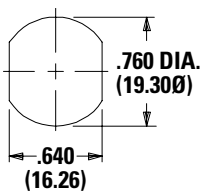
Mounting/Lock Style

N With Nut

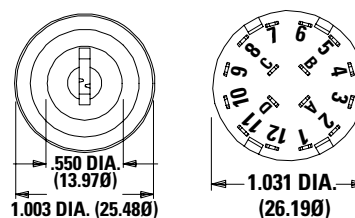
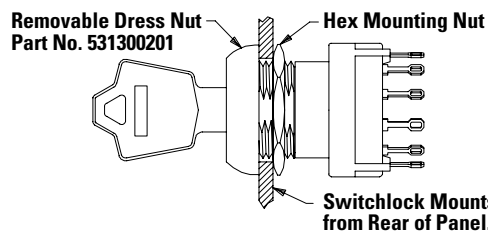
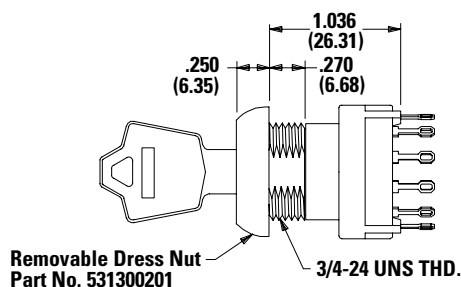


Note: Nut part number: 937C00000

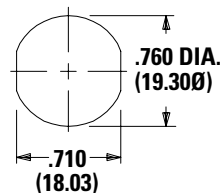
Panel Mounting



R Removable Dress Nut



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.

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4 & 5 Tumbler 1-4 Pole Switchlocks



Mounting Information (All Models)

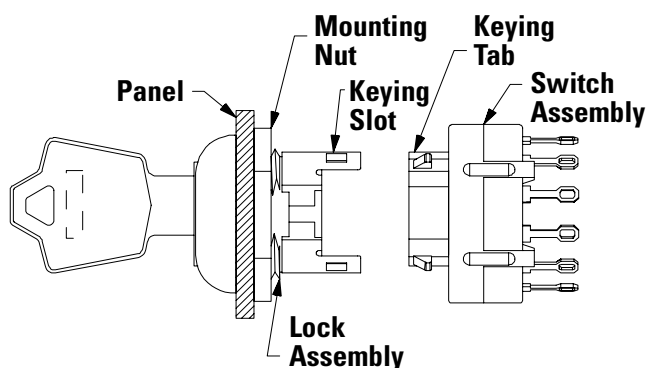
Panel Thickness

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 ¹	ROHS Compatible ¹	Contact and Terminal Material	Rating	
Q	Yes		Silver ³	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 ²	Low Level / Dry Circuit	0.4 VA Max. @ 20 V AC or DC max.

Notes:

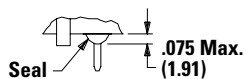
1. See Technical Data section of this catalog for RoHS compliant and compatible definitions and specifications.
2. Movable Contact: Copper alloy, with gold plate over nickel plate. Stationary Contacts & Terminals: Brass, with gold plate over nickel plate.
3. Movable Contact: Coin silver, silver plated.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

All models **C** **U** **S** 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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