# OMRON Ultra subminiature Pushbutton Switch

### Ultra subminiature size.

- Gold-plated clip contact ensure high reliability.
- The sealed bottom prevents flux penetration.
- Washable, equivalent to IP64 (IEC-60529).
- A9PS is smaller than A9P. Height: A9P 13.3mm, A9PS 10.5mm (30% smaller than A9P)

**RoHS Compliant** 

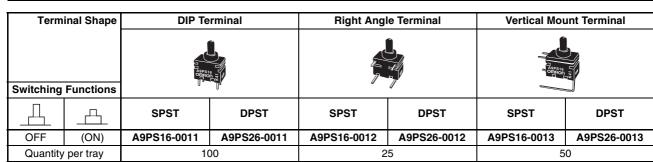
Typical Applications

Security Control Boards

Electric Power Instrumentation

**Ordering Information** 

Program Controllers



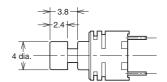
Note: (ON) shows Momentary.

#### • Caps

Available wide range og colors.

Colors	White	Black	Blue	Green	Yellow	Red		
Models	A9PS-011	A9PS-021	A9PS-041	A9PS-051	A9PS-061	A9PS-071		
Dimension	<-4 dia.⇒							

Dimension with the cap.





# A9PS

# Specifications

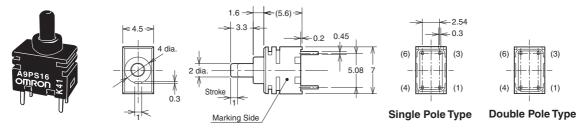
### Ratings/Characteristics

Switching capacity	100 mA at 28 VAC/DC, 0.1 $\mu$ A (minimum current) at 20 mVAC/DC				
Ambient operating temperature	-20 °C to 80 °C 60% RH max. (with no icing or condensation)				
Ambient operating humidity	45 to 85% RH (5 to 35 °C)				
Insulation resistance	500 MΩ min. (Initial value)				
Contact resistance	80 mΩ max. (Initial value)				
Dielectric strength	500 VAC for 1min between terminals, between terminals and ground				
Vibration resistance	Malfunction: 10 to 55 Hz, 1.5-mm double amplitude				
Shock resistance	Malufunction: 500 m/s <sup>2</sup> min.				
Durability	Mechanical: 50,000 operations min.				
	Electrical: 50,000 operations min.				
Operating forcse	4.9 N max.				
Weight	0.3 g				

# Dimensions

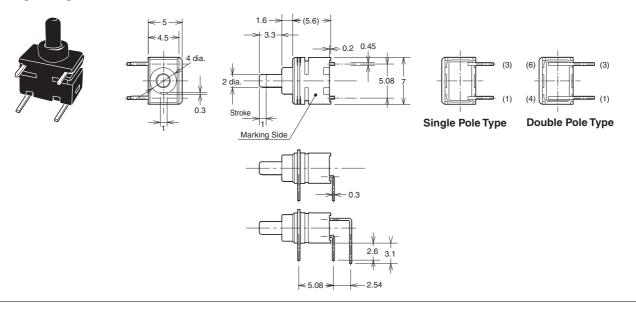
Note: All units are in millimeters unless otherwise indicated.

### • DIP Terminal Models



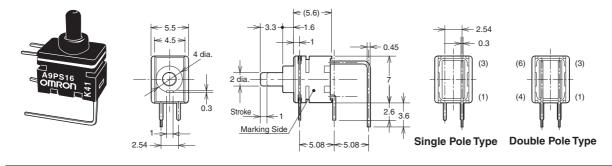
Note: NO.(4) and (6) terminals in the SPDT models are dummys to support the Switch case.

### • Right Angle Terminal Models

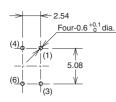


OMRON .

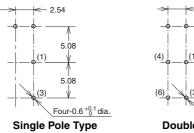
### • Vertical Mount Terminal Models

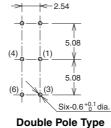


### • PCB Dimensions (Top View) **DIP Terminal Models**

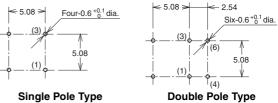


### **Vertical Mount Terminal Models**





### **Right Angle Terminal Models**



**Double Pole Type** 

# Switching Function / Internal Connections

	Switching	Functions		
SPST Models			1(3)	1(3)
DPST Models	OFF	(ON)	1 	1 (3) 4 (6)

Note: (ON) shows Momentary.

# Safety Precautions

#### Cautions

Use the switch within the rated voltage and current ranges, otherwise the Switch may have a shortened life expectancy, radiate heat,or burn out. This particularly applies to the instantaneous voltages and currents when switching.

### • Hardling

Do not apply excessive operating force to the Switch. Otherwise the Switch may be damaged or deformed, and the switch mechanism may malfunction as a result. Apply an operating force not exceeding 9.8N {1,000gf}. Apply the operating load from the top of the actuator. Do not apply a load from angle or from side the actuator. Doing so may deform the Switch contact.

### Soldering

Observe the following conditions when soldering the Switch. Automatic Soldering Bath

Soldering temperature: 260 °C max. (Preheating: 100 °C 120s max.) Soldering time: 5s max.

#### Manual Soldering

Soldering temperature: 350  $^{\circ}\text{C}$  at the tip of the soldering iron. Soldering time: 3s max.

#### • Washing

Apply alcohol based solvents to clean.

Do not clean the Switch immediately after soldering. Wait for at least five minutes after soldering before cleaning.

Ultrasonic cleaning is not available dip into Switch washing agents for two minutes maximum.

### • Using Flux

Making mistakes in the type of flux or in the amount or method in which it is applied can cause flux to enter the interior of the Switch, with adverse effects on Switch performance. Assess the proper flux, conditions, and methods prior to using it.

#### RoHS Compliant

The "RoHS Compliant" designation indicates that the listed models do not contain the six hazardous substances covered by the RoHS Directive.

Reference: The following standards are used to determine compliance for the six substances.

- Lead: 1,000 ppm max.
- Mercury: 1,000 ppm max.
- Cadmium: 100 ppm max.
- Hexavalent chromium: 1,000 ppm max.
- PBB: 1,000 ppm max.
- PBDF: 1,000 ppm max.
- Environment for Storage and Use

To prevent discoloration of the terminals and other problems during storage, do not store the Switch in locations subject to the following conditions.

1. High temperature or humidity

- 2. Corrosive gases
- 3. Direct sunlight

Also, the Switch is not waterproof or splash-resistance. Do not use the Switch in locations that are subject to contact with

water. Do not subject the Switch to freezing or condensation.

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS. To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

Cat. No. A198-E1-02 In the interest of product improvement, specifications are subject to change without notice.

### **OMRON** Corporation

**OMRON SWITCH & DEVICES Corporation** 

Consumer & Commercial Switch Department Marketing 2075, Miyoshi, Nakaku, Okayama Okayama, 703-8502 Japan Tel: (81)86-277-6024/Fax: (81)86-276-5044 URL : http://www.omron.com/ecb/

## **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Pushbutton Switches category:

Click to view products by Omron manufacturer:

Other Similar products are found below :

 8940K2012
 LW1L-M1C10V-A
 LW1L-M1C70-A
 LW2L-A1C20M-GD
 LW2L-M1C20M-A
 60324L
 M22-D-R-GB0/K11
 M7E-HRN2

 67021K512
 67081K512X
 701PB580
 7199K101
 810K12910
 810KSV30B
 MML21EA2ADK
 MML21KA3ABK
 MML23KA3AC05K-001

 MML23KW3AA01W
 8418K2
 8442K2
 8442K3
 8450K1
 860K11911T01A
 861901
 861K11911T01A07
 861K13810T00A14
 861K13911

 8646AB6X718UL
 8646ABUL
 9001KXRK
 907AYY100
 PMHD155A1
 9533CD4+U574+U4922
 95-414.000
 99-450.837
 99-453.837

 PV3H2B0NN-341
 1203MRA
 A22NZBGANGA
 A22NZBNANGA
 A22NZMPATRA
 A2PMA1X03EC56
 A3A-5123-02
 A3A-7140
 A3A-7340

 7310
 A3A-7340
 A3U-TMW-A2C-5M
 A595
 12037A2ULCSA
 ABD122N-B
 ABD122N-B