

# **Rocker Switch**

A8A

# Safety-considered Power Rocker Switch

- · Low heat radiation with a Unique leaf spring mechanism.
- Positive-opening mechanism incorporated.
- AC operated Neon lamp illumination models available.
- Contact gap of 3 mm minimum.
- Variety of color models available
- · UL and CSA standards approved. Conforms to EN standard.



### **RoHS Compliant**



Caution

**Refer to Precautions** 

### **■List of Models**

### Non-illuminated Models

Contact Form		2 <b>F</b> -		Quantity per box		
Color of cases		White	Black	Gray		
	White	A8A-201	A8A-201-1	-		
	Red	A8A-202	A8A-202-1	A8A-202-2		
Color of caps	Green	A8A-203	A8A-203-1	A8A-203-2	50	
Color of caps	Blue	A8A-204	A8A-204-1	-	50	
	Yellow	A8A-205	A8A-205-1	-		
	Black	A8A-207	A8A-207-1	A8A-207-2		

Note: Marking of Non-illuminated Models

Consult your Omron sales representative for details.

#### Illuminated Models

Со	ntact Form	2 II 1 1 1 3 4 II 3				Quantity per box		
Rat	ted voltage		100 VAC			200 to 220 VAC		
Cole	or of cases	White	Black	Gray	White	Black	Gray	
	Red	A8A-212	A8A-212-1	A8A-212-2	A8A-222	A8A-222-1	A8A-222-2	
Color of caps	Green	A8A-213	A8A-213-1	A8A-213-2	A8A-223	A8A-223-1	A8A-223-2	50
	Orange	A8A-216	A8A-216-1	A8A-216-2	A8A-226	A8A-226-1	A8A-226-2	

Note: Marking of illuminated Models

The cap of the above mentioned models is without marking.

Models with omarking is with suffix "-\\_A" such as A8A-212-A and A8A-212-1A. Models with omarking is with suffix "-\\_G" such as A8A-212-G and A8A-212-IG.

Consult your Omron sales representative for details.

# **■**Ratings

	Non-in	ductive	Inductive		
Rated load	Rated load Resistive load		Inductive load	Inductive motor load	
125 VAC	16A	10A	16A	16A	
250 VAC	16A	10A	8A	16A	

Note: 1. The above value shows steady current.

- The inductive load has a power factor of 0.4 min (AC) and a time constant of 7 ms min (DC).
- 3. Lamp load has an inrush current of 10 times the steady current.
- 4. Motor load has an inrush current of 6 times the steady current.
- **5.** The above ratings were tested under the following conditions:
  - (1) Ambient temperature: 20±2 °C
  - (2) Ambient humidity: 65±5 %RH
  - (3) Switching frequency: 20 times/min.

# **■**Neon lamps

Models	Rated voltage	Rated current
A8A-21□-□	100 VAC	1.5 mA
A8A-22□-□	200 to 220 VAC	1.5 mA

Note: 1. Life expectancy: 15,000 Hr min.

Lamp is not exchangeable.

### **■**Approved Safety Standards

**UL (UL508)** 

16A 125 VAC, 16A 250 VAC

CSA (CSA C22.2 No.55)

16A 125 VAC, 16A 250 VAC

**VDE (EN61058-1)** 

16A 250 VAC

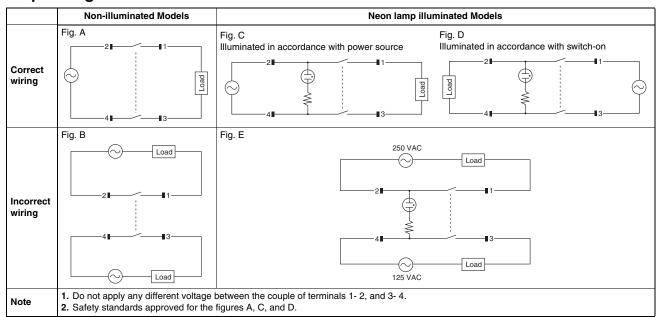
### **■**Characteristics

Permissible operating speed		1 to 500 mm/s		
Permissible operating	Mechanical	30 operations / min max.		
frequency	Electrical	20 operations / min max.		
Insulation resistance		100 M $\Omega$ min. (at 500 VDC with insulation tester)		
Contact resistance (initial value)		20 mΩ max. (6 to 8 VDC, 1 A, voltage drop method)		
	Between terminals of the same polarity	2.000 VAG, 50/60 Hz, for 1 min		
Dielectric strength	Between terminals of the different polarity	2.000 VAG, 50/60 Hz, for 1 min (See Note *)		
	Between charged metal parts and the ground terminal	4.000 VAG, 50/60 Hz, for 1 min		
Vibration resistance	Malfunction	10 to 55 Hz, 1.5-mm double amplitude		
Shock resistance Malfunction		300 m/s <sup>2</sup> max.		
Durability	Mechanical	40,000 operations min.		
Durability	Electrical	20,000 operations min.		
Weight		Non-illuminated: Approx 15g. Illuminated: Approx 16g.		
Inrush current		100A max. (100 ms max.)		
Ambient operating temperature		- 25 to +50 °C (with no icing or condensation)		
Ambient operating humidity		45 to 85 %RH		
Degree of protection		IEC IP40		
Electric shock protection class		Class II		
PTI (proof tracking index)		175		
Pollution degree		2		

Note: For the condition in individual standard, contact your OMRON sales representative.

<sup>\*</sup> Condition in the Neon lamp illuminated models are excluded.

# **■**Operating Circuit



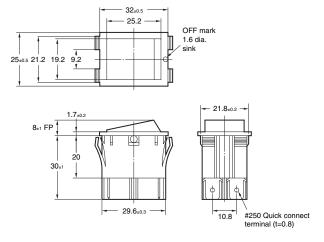
### ■Dimensions (Unit: mm) A8A





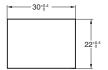
# **■**Operating Characteristics

Operating force (OF) max.	19.6 N {2,000 gf}
Free Position (FP)	8±1 mm
Operating Position (OF)	5±1 mm

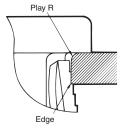


Note: Unless otherwise specified, a tolerance of  $\pm 0.4$  mm applies to all dimensions.

### ■Panel Cutout



Note: Recommended panel thickness: 1.0 to 3.0 mm.

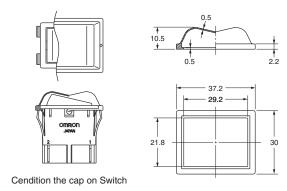


When processing the panel, be sure that the Play R is on the switch operation side. Be sure that the Edge is on the reverse side of panel when processing.

# **■**Optional Accessories (Sold separately)

Rubber cap for high dustproof.

### **A8A RUBBER CAP**



### **■**Precautions

Be sure to read the Safety precautions common to all Rocker Switches for correct use.

Contact: www.omron.com/ecb

Note: Do not use this document to operate the Unit.

Application examples provided in this document are for reference only. In actual applications, confirm equipment functions and safety before using the product.
Consult your OMRON representative before using the product under conditions which are not described in the manual or applying the product to nuclear control systems, railroad systems, aviation systems, vehicles, combustion systems, medical equipment, amusement machines, safety equipment, and other systems or equipment that may have a serious influence on lives and property if used improperly. Make sure that the ratings and performance characteristics of the product provide a margin of safety for the system or equipment, and be sure to provide the system or equipment with double safety mechanisms.

# **Mouser Electronics**

**Authorized Distributor** 

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## Omron:

<u>A8A-201-1</u> <u>A8A-203-1</u> <u>A8A-212</u> <u>A8A-212-1</u> <u>A8A-212-1A</u> <u>A8A-212-1G</u> <u>A8A-212-2</u> <u>A8A-213</u> <u>A8A-213-1</u> <u>A8A-213-1</u> <u>A8A-213-1</u> <u>A8A-213-1</u> <u>A8A-213-1G</u> <u>A8A-213-1G</u> <u>A8A-213-1G</u> <u>A8A-213-1G</u> <u>A8A-223-1G</u> <u>A8A-23-1G</u> <u>A8</u>