

Separate Construction with Cylindrical 16-dia. Body

- Miniature design of 28.5 mm, the smallest class in the industry.
- Detachable Switch.
- The same contacts can be used for both standard loads and microloads.
- Easy-to-wire terminal arrangement.
- Certified for EN 60947-5-1.



! Refer to *Safety Precautions for All Pushbutton Switches/Indicators and Safety Precautions* on page 24.

List of Models

	Model		
	Rectangular	Square	Round
Solder terminals			
PCB terminals			
Voltage-reduction lighting solder terminals			
Screw-less clamp models			

Button Colors

The button colors when the buttons are lit and when they are not lit are shown below. Use these colors as reference only.
The actual colors may vary.

When not lit								
When lit								—
	R (Red)	Y (Yellow)	PY (Pure yellow)	G (Green)	W (White)	A (Blue)	PW (Pure white)	B (Black)

Model Number Structure

Model Number Legend The model numbers used to order sets of Units are illustrated below. One set comprises the Pushbutton, LED (lighted models only), Case, and Switch. For information on combinations, refer to Ordering Information on pages 3 to 7.

(1)	(2)	(3)	(4)	(5)	(6)	(7)																		
A	1	6	5	L	J R M	24D - 2																		
(1) Degree of Protection																								
<table border="1"> <thead> <tr> <th>Symbol</th><th>Protection</th></tr> </thead> <tbody> <tr> <td>No symbol</td><td>IP40</td></tr> <tr> <td>5</td><td>Oil-resistant IP66</td></tr> </tbody> </table>							Symbol	Protection	No symbol	IP40	5	Oil-resistant IP66												
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(2) Lighted/Non-lighted																								
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Y	Yellow																							
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A	Blue																							
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<ul style="list-style-type: none"> • Color illuminated models are also available (see page 8). • Order the parts separately. 																								
(5) Switch Operation																								
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The built-in LED is colored.																								
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Symbol	Type	Operating voltage	Rated voltage																					
No symbol		Non-lighted																						
5D	LED	5 ± 5% VDC	5 VDC																					
12D		12 ± 5% VAC/VDC	12 VAC/VDC																					
24D		24 ± 5% VAC/VDC	24 VAC/VDC																					
Voltage Reduction Unit (24-V Built-in LED)																								
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Symbol	Type	Operating voltage	Rated voltage																					
T1	LED	100 to 110 VAC/VDC	100/110 VAC/VDC																					
T2		200 to 220 VAC/VDC	200/220 VAC/VDC																					
<ul style="list-style-type: none"> • Solder terminals are available only with 100-V models. • The Voltage Reduction Unit is not available for models with PCB terminals. • "T2" is available only for the Screw-less Clamp type. 																								

Ordering Information

Ordering as a Set The model numbers used to order sets of Units are given in the following tables. One set comprises the Pushbutton, LED (lighted models only), Case, and Switch.

Solder Terminal Models

Rectangular Models

IP40



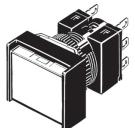
A16□-J

Output	Lighting	Item Operating voltage	Momentary operation (Self-resetting)	Alternate operation (Self-holding)	Pushbutton color symbol *1
SPDT	LED without Voltage Reduction Unit	5 VDC	A16L-J□M-5D-1	A16L-J□A-5D-1	R: red, Y: yellow PY: pure yellow G: green, A: blue W: white, B: black *2 PW: pure white *3
		12 VAC/VDC	A16L-J□M-12D-1	A16L-J□A-12D-1	
		24 VAC/VDC	A16L-J□M-24D-1	A16L-J□A-24D-1	
	Non-lighted		A16-J□M-1	A16-J□A-1	
DPDT	LED without Voltage Reduction Unit	5 VDC	A16L-J□M-5D-2	A16L-J□A-5D-2	R: red, Y: yellow PY: pure yellow G: green, A: blue W: white, B: black *2 PW: pure white *3
		12 VAC/VDC	A16L-J□M-12D-2	A16L-J□A-12D-2	
		24 VAC/VDC	A16L-J□M-24D-2	A16L-J□A-24D-2	
	Non-lighted		A16-J□M-2	A16-J□A-2	

*1. Enter the desired color symbol for the Pushbutton in the □.

*2. Black ("B") Pushbuttons are only available for non-lighted models.

*3. PW (pure white) is available for LED types only.



Oil-resistant IP66

Output	Lighting	Item Operating voltage	Momentary operation (Self-resetting)	Alternate operation (Self-holding)	Pushbutton color symbol *1
SPDT	LED without Voltage Reduction Unit	5 VDC	A165L-J□M-5D-1	A165L-J□A-5D-1	R: red, Y: yellow PY: pure yellow G: green, A: blue W: white, B: black *2 PW: pure white *3
		12 VAC/VDC	A165L-J□M-12D-1	A165L-J□A-12D-1	
		24 VAC/VDC	A165L-J□M-24D-1	A165L-J□A-24D-1	
	Non-lighted		A165-J□M-1	A165-J□A-1	
DPDT	LED without Voltage Reduction Unit	5 VDC	A165L-J□M-5D-2	A165L-J□A-5D-2	R: red, Y: yellow PY: pure yellow G: green, A: blue W: white, B: black *2 PW: pure white *3
		12 VAC/VDC	A165L-J□M-12D-2	A165L-J□A-12D-2	
		24 VAC/VDC	A165L-J□M-24D-2	A165L-J□A-24D-2	
	Non-lighted		A165-J□M-2	A165-J□A-2	

*1. Enter the desired color symbol for the Pushbutton in the □.

*2. Black ("B") Pushbuttons are only available for non-lighted models.

*3. PW (pure white) is available for LED types only.

Individual models: Refer to pages 9 to 13.

(The Pushbutton, Lamp, Case, and Switch can be ordered separately.)

■ Ratings: Refer to page 16. ■ Characteristics: Refer to page 16.

■ Accessories: Refer to page 15.

Ordering Information

Ordering as a Set The model numbers used to order sets of Units are given in the following tables. One set comprises the Pushbutton, LED (lighted models only), Case, and Switch.

Solder Terminal Models

Output	Lighting	Item Operating voltage	Momentary operation (Self-resetting)	Alternate operation (Self-holding)	Pushbutton color symbol *1
SPDT	LED without Voltage Reduction Unit	5 VDC	A16L-A□M-5D-1	A16L-A□A-5D-1	R: red, Y: yellow PY: pure yellow G: green, A: blue W: white, B: black *2 PW: pure white *3
		12 VAC/VDC	A16L-A□M-12D-1	A16L-A□A-12D-1	
		24 VAC/VDC	A16L-A□M-24D-1	A16L-A□A-24D-1	
	Non-lighted		A16-A□M-1	A16-A□A-1	
DPDT	LED without Voltage Reduction Unit	5 VDC	A16L-A□M-5D-2	A16L-A□A-5D-2	R: red, Y: yellow PY: pure yellow G: green, A: blue W: white, B: black *2 PW: pure white *3
		12 VAC/VDC	A16L-A□M-12D-2	A16L-A□A-12D-2	
		24 VAC/VDC	A16L-A□M-24D-2	A16L-A□A-24D-2	
	Non-lighted		A16-A□M-2	A16-A□A-2	

*1. Enter the desired color symbol for the Pushbutton in the □.

*2. Black ("B") Pushbuttons are only available for non-lighted models.

*3. PW (pure white) is available for LED types only.

Output	Lighting	Item Operating voltage	Momentary operation (Self-resetting)	Alternate operation (Self-holding)	Pushbutton color symbol *1
SPDT	LED without Voltage Reduction Unit	5 VDC	A165L-A□M-5D-1	A165L-A□A-5D-1	R: red, Y: yellow PY: pure yellow G: green, A: blue W: white, B: black *2 PW: pure white *3
		12 VAC/VDC	A165L-A□M-12D-1	A165L-A□A-12D-1	
		24 VAC/VDC	A165L-A□M-24D-1	A165L-A□A-24D-1	
	Non-lighted		A165-A□M-1	A165-A□A-1	
DPDT	LED without Voltage Reduction Unit	5 VDC	A165L-A□M-5D-2	A165L-A□A-5D-2	R: red, Y: yellow PY: pure yellow G: green, A: blue W: white, B: black *2 PW: pure white *3
		12 VAC/VDC	A165L-A□M-12D-2	A165L-A□A-12D-2	
		24 VAC/VDC	A165L-A□M-24D-2	A165L-A□A-24D-2	
	Non-lighted		A165-A□M-2	A165-A□A-2	

*1. Enter the desired color symbol for the Pushbutton in the □.

*2. Black ("B") Pushbuttons are only available for non-lighted models.

*3. PW (pure white) is available for LED types only.

Individual models: Refer to pages 9 to 13.
(The Pushbutton, Lamp, Case, and Switch can be ordered separately.)

■ Ratings: Refer to page 16. ■ Characteristics: Refer to page 16.
■ Accessories: Refer to page 15.

Ordering Information

Ordering as a Set The model numbers used to order sets of Units are given in the following tables. One set comprises the Pushbutton, LED (lighted models only), Case, and Switch.

Solder Terminals

Round Models

IP40



Output	Lighting	Item Operating voltage	Momentary operation (Self-resetting)	Alternate operation (Self-holding)	Pushbutton color symbol *1
SPDT	LED without Voltage Reduction Unit	5 VDC	A16L-T□M-5D-1	A16L-T□A-5D-1	R: red, Y: yellow PY: pure yellow G: green, A: blue W: white, B: black *2 PW: pure white *3
		12 VAC/VDC	A16L-T□M-12D-1	A16L-T□A-12D-1	
		24 VAC/VDC	A16L-T□M-24D-1	A16L-T□A-24D-1	
	Non-lighted		A16-T□M-1	A16-T□A-1	
DPDT	LED without Voltage Reduction Unit	5 VDC	A16L-T□M-5D-2	A16L-T□A-5D-2	
		12 VAC/VDC	A16L-T□M-12D-2	A16L-T□A-12D-2	
		24 VAC/VDC	A16L-T□M-24D-2	A16L-T□A-24D-2	
	Non-lighted		A16-T□M-2	A16-T□A-2	

*1. Enter the desired color symbol for the Pushbutton in the □.

*2. Black ("B") Pushbuttons are only available for non-lighted models.

*3. PW (pure white) is available for LED types only.

Oil-resistant IP66



Output	Lighting	Item Operating voltage	Momentary operation (Self-resetting)	Alternate operation (Self-holding)	Pushbutton color symbol *1
SPDT	LED without Voltage Reduction Unit	5 VDC	A165L-T□M-5D-1	A165L-T□A-5D-1	R: red, Y: yellow PY: pure yellow G: green, A: blue W: white, B: black *2 PW: pure white *3
		12 VAC/VDC	A165L-T□M-12D-1	A165L-T□A-12D-1	
		24 VAC/VDC	A165L-T□M-24D-1	A165L-T□A-24D-1	
	Non-lighted		A165-T□M-1	A165-T□A-1	
DPDT	LED without Voltage Reduction Unit	5 VDC	A165L-T□M-5D-2	A165L-T□A-5D-2	
		12 VAC/VDC	A165L-T□M-12D-2	A165L-T□A-12D-2	
		24 VAC/VDC	A165L-T□M-24D-2	A165L-T□A-24D-2	
	Non-lighted		A165-T□M-2	A165-T□A-2	

*1. Enter the desired color symbol for the Pushbutton in the □.

*2. Black ("B") Pushbuttons are only available for non-lighted models.

*3. PW (pure white) is available for LED types only.

Individual models: Refer to pages 9 to 13.

(The Pushbutton, Lamp, Case, and Switch can be ordered separately.)

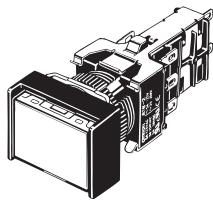
■ Ratings: Refer to page 16. ■ Characteristics: Refer to page 16.

■ Accessories: Refer to page 15.

Ordering Information

Ordering as a Set The model numbers used to order sets of Units are given in the following tables. One set comprises the Pushbutton, LED (lighted models only), Case, and Switch.

Models with Reduced-voltage Lighting and Solder Terminals



A16□-T1

IP40

Note: Models with voltage ratings of 200 to 220 VAC/DC (T2 models) are listed with models with screw-less clamp

Output	Lighting	Operating voltage	Item	Momentary operation (Self-resetting)	Alternate operation (Self-holding)	Pushbutton color symbol *
SPDT	LED (with built-in reduced-voltage lighting function)	100/110 VAC/VDC	A16L-△□M-T1-1		A16L-△□A-T1-1	R: red, Y: yellow PY: pure yellow G: green, W: white A: blue PW: pure white
DPDT		100/110 VAC/VDC	A16L-△□M-T1-2		A16L-△□A-T1-2	

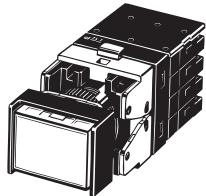
* Enter the desired shape for the Pushbutton in △: J (rectangular), A (square), or T (round). Enter the desired color symbol for the Pushbutton in the □.

Oil-resistant IP66

Output	Lighting	Operating voltage	Item	Momentary operation (Self-resetting)	Alternate operation (Self-holding)	Pushbutton color symbol *
SPDT	LED (with built-in reduced-voltage lighting function)	100/110 VAC/VDC	A165L-△□M-T1-1		A165L-△□A-T1-1	R: red, Y: yellow PY: pure yellow G: green, W: white A: blue PW: pure white
DPDT		100/110 VAC/VDC	A165L-△□M-T1-2		A165L-△□A-T1-2	

* Enter the desired shape for the Pushbutton in △: J (rectangular), A (square), or T (round). Enter the desired color symbol for the Pushbutton in the □.

Screw-less Clamp Models



A16□-2S

IP40

Output	Lighting	Operating voltage	Item	Momentary operation (Self-resetting)	Alternate operation (Self-holding)	Pushbutton color symbol *1
DPDT	LED	5 VDC	A16L-△□M-5D-2S		A16L-△□A-5D-2S	R: red, Y: yellow PY: pure yellow G: green, W: white A: blue PW: pure white B: black *2
		12 VAC/VDC	A16L-△□M-12D-2S		A16L-△□A-12D-2S	
		24 VAC/VDC	A16L-△□M-24D-2S		A16L-△□A-24D-2S	
	LED (with built-in reduced-voltage lighting function)	100/110 VAC/VDC	A16L-△□M-T1-2S		A16L-△□A-T1-2S	
		200/220 VAC/VDC	A16L-△□M-T2-2S		A16L-△□A-T2-2S	
	Non-lighted		A16-△□M-2S		A16-△□A-2S	

*1. Enter the desired shape for the Pushbutton in △: J (rectangular), A (square), or T (round). Enter the desired color symbol for the Pushbutton in the □.

*2. Black ("B") Pushbuttons are only available for non-lighted models.

Oil-resistant IP66

Output	Lighting	Operating voltage	Item	Momentary operation (Self-resetting)	Alternate operation (Self-holding)	Pushbutton color symbol *1
DPDT	LED	5 VDC	A165L-△□M-5D-2S		A165L-△□A-5D-2S	R: red, Y: yellow PY: pure yellow G: green, W: white A: blue PW: pure white B: black *2
		12 VAC/VDC	A165L-△□M-12D-2S		A165L-△□A-12D-2S	
		24 VAC/VDC	A165L-△□M-24D-2S		A165L-△□A-24D-2S	
	LED (with built-in reduced-voltage lighting function)	100/110 VAC/VDC	A165L-△□M-T1-2S		A165L-△□A-T1-2S	
		200/220 VAC/VDC	A165L-△□M-T2-2S		A165L-△□A-T2-2S	
	Non-lighted		A165-△□M-2S		A165-△□A-2S	

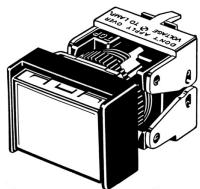
*1. Enter the desired shape for the Pushbutton in △: J (rectangular), A (square), or T (round). Enter the desired color symbol for the Pushbutton in the □.

*2. Black ("B") Pushbuttons are only available for non-lighted models.

Ordering Information

Ordering as a Set The model numbers used to order sets of Units are given in the following tables. One set comprises the Pushbutton, LED (lighted models only), Case, and Switch.

Models with PCB Terminals



A16□-P

IP40

Output	Lighting	Operating voltage	Item Momentary operation (Self-resetting)	Pushbutton color symbol *1
SPDT	LED	5 VDC	A16L-△□M-5D-1P	R: red Y: yellow PY: pure yellow G: green A: blue W: white B: black *2
		12 VAC/VDC	A16L-△□M-12D-1P	
		24 VAC/VDC	A16L-△□M-24D-1P	
	Non-lighted	A16-△□M-1P		
DPDT	LED	5 VDC	A16L-△□M-5D-2P	R: red Y: yellow PY: pure yellow G: green A: blue W: white B: black *2
		12 VAC/VDC	A16L-△□M-12D-2P	
		24 VAC/VDC	A16L-△□M-24D-2P	
	Non-lighted	A16-△□M-2P		

Note: Contact your OMRON representative about Selector Switches and Key Selector Switches.

*1. Enter the desired shape for the Pushbutton in Δ: J (rectangular), A (square), or T (round). Enter the desired color symbol for the Pushbutton in the □.

*2. Black ("B") Pushbuttons are only available for non-lighted models.

IP66

Output	Lighting	Operating voltage	Item Momentary operation (Self-resetting)	Pushbutton color symbol *1
SPDT	LED	5 VDC	A165L-△□M-5D-1P	R: red Y: yellow PY: pure yellow G: green A: blue W: white B: black *2
		12 VAC/VDC	A165L-△□M-12D-1P	
		24 VAC/VDC	A165L-△□M-24D-1P	
	Non-lighted	A165-△□M-1P		
DPDT	LED	5 VDC	A165L-△□M-5D-2P	R: red Y: yellow PY: pure yellow G: green A: blue W: white B: black *2
		12 VAC/VDC	A165L-△□M-12D-2P	
		24 VAC/VDC	A165L-△□M-24D-2P	
	Non-lighted	A165-△□M-2P		

Note: Contact your OMRON representative about Selector Switches and Key Selector Switches.

*1. Enter the desired shape for the Pushbutton in Δ: J (rectangular), A (square), or T (round). Enter the desired color symbol for the Pushbutton in the □.

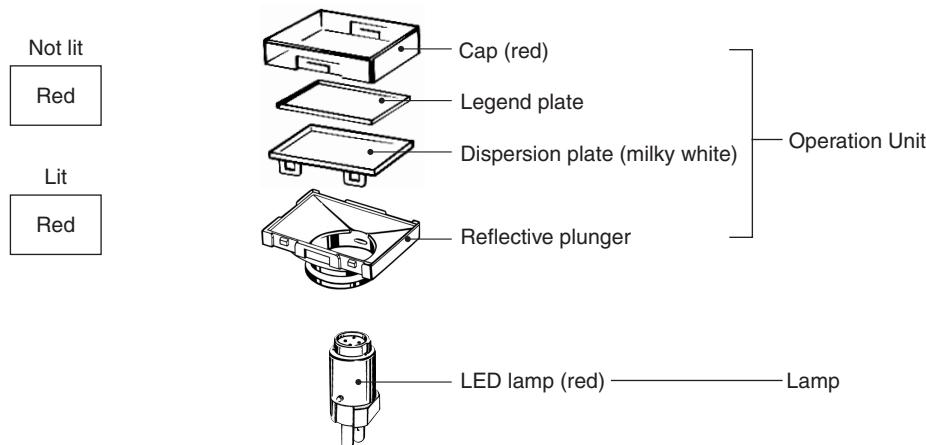
*2. Black ("B") Pushbuttons are only available for non-lighted models.

Ordering Information

Illumination Only and Colored Illumination for Models with LEDs

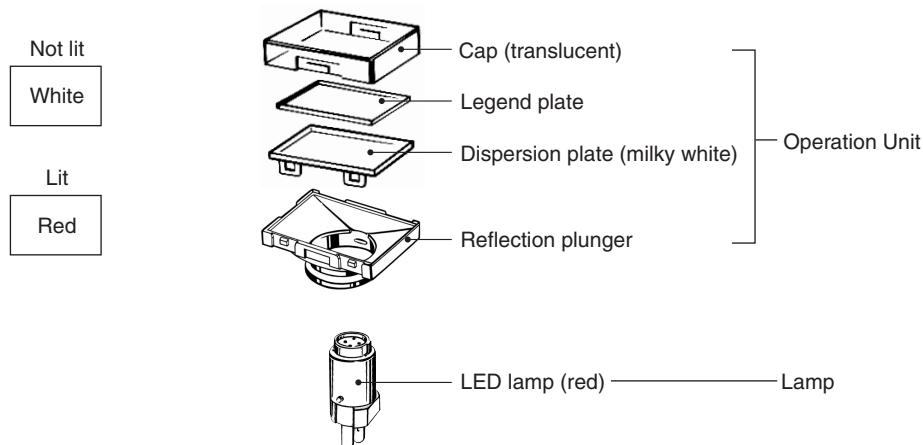
With illumination only, the color of the lighted surface is the same when the LED is lit and when it is not lit.

Example: Red Illumination



With colored illumination, the color of the lighted surface is white when the LED is not lit and the LED emits another color when it is lit.

Example: Red Illumination

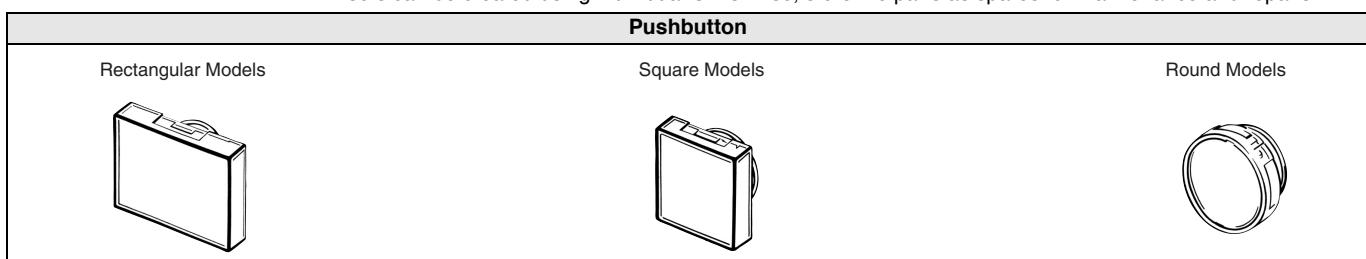


Ordering: For colored illumination, order the Pushbutton, Case, Lamp, and Switch separately.

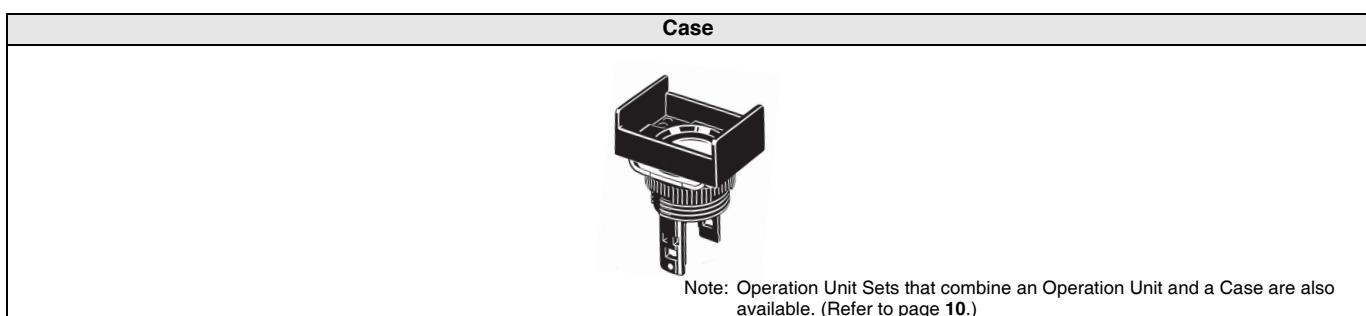
Color emitted when lit	Operation Unit	Case	Lamp (LED)		Switch
Red	IP40 A16L-□W IP66 A165L-□W	IP40 • Momentary: A16-C□M • Alternate: A16-C□A IP66 • Momentary: A165-C□M • Alternate: A165-C□A	A16-□DSR	Specify one of the following symbols in the box (□). 5: 5 VDC 12: 12 VAC/VDC 24: 24 VAC/VDC	Refer to page 14. Any Switch can be mounted.
Yellow	Insert one of the following symbols into the box (□).	Insert one of the following symbols into the box (□).	A16-□DSY		
Green	J: Rectangular A: Square T: Round	J: Rectangular (2-way guard) A: Square (2-way guard) T: Round (projected)	A16-□DSG		
Blue			A16-□DA		

Ordering Information

Ordering Individually Pushbuttons, Lamps, Cases, and Switches can be ordered separately. Combinations that are not available as sets can be created using individual Units. Also, store the parts as spares for maintenance and repairs.

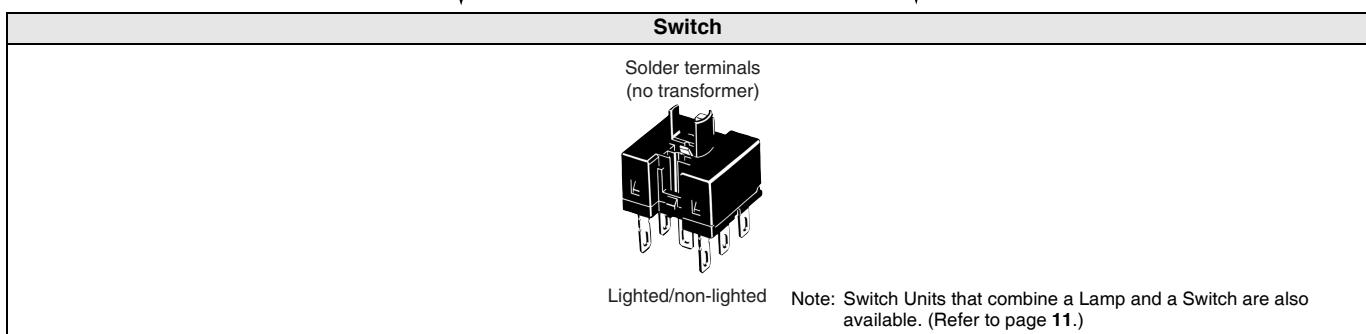
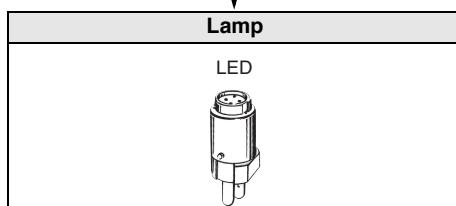


Note: Use IP40 Operation Units with IP40 Case and use IP66 Operation Units with IP66 Case. There is no Legend Plate built into the Operation Unit. A Legend Plate is built into the Operation Unit. However, if the Operation Unit is black (non-lighted models only), a Legend Plate is not built in.



Lighted Models

Non-lighted Models



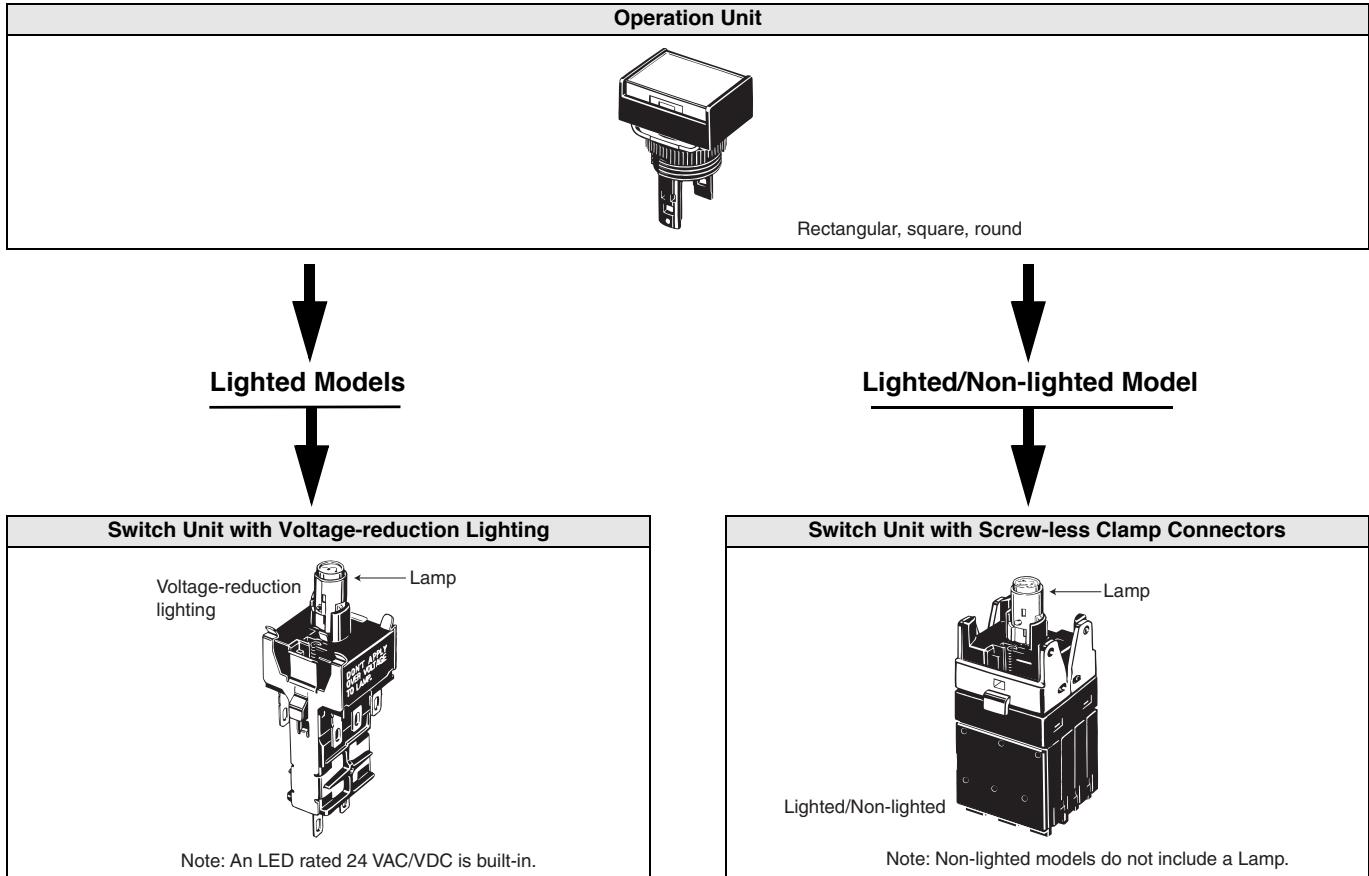
Ordering set combinations: Refer to pages 3 to 7.

■ Specifications: Refer to page 16.

■ Accessories, Replacement, and Tools: Refer to page 15.

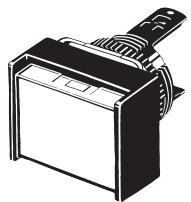
Ordering Information

Units..... Select a Pushbutton Unit (Pushbutton and Case) and a Switch Unit (Lamp and Switch).



Unit Sets..... Sets that combine an Operation Unit and a Case.

Operation Unit

Appearance	Classification			Model
	IP40 Momentary operation Alternate operation	Rectangular (2-way guard)		A16-J□M
		Square (2-way guard)		A16-A□M
		Round (projected)		A16-T□M
	Oil-resistant IP66	Rectangular (2-way guard)		A16-J□A
		Square (2-way guard)		A16-A□A
		Round (projected)		A16-T□A
	Momentary operation Alternate operation	Rectangular (2-way guard)		A165-J□M
		Square (2-way guard)		A165-A□M
		Round (projected)		A165-T□M
		Rectangular (2-way guard)		A165-J□A
		Square (2-way guard)		A165-A□A
		Round (projected)		A165-T□A

Insert one of the following symbols into the box (□).

Symbol	Color	Remarks
R	Red	
Y	Yellow	
PY	Pure yellow	LED indicator or non-lighted
A	Blue	
W	White*	
GY	Green	LED only
G	Green	
B	Black	Non-lighted only

* Use this pushbutton color if the illumination color of the LED is white or pure white.

Ordering Information

Unit Sets Sets that combine a Switch and a Lamp.

Switch Units with LED Lamps

Appearance	Classification			Model
	Standard loads and microloads	Solder terminals		SPDT A16L-Δ-□-1
		PCB terminals		DPDT A16L-Δ-□-2
	PCB terminals	SPDT		A16L-Δ-□-1P
		DPDT		A16L-Δ-□-2P

Switch Units with Voltage-reduction Lighting (Soldered Terminals)

Appearance	Classification		Operating voltage	Model
	Standard loads and microloads		SPDT	100/110 VAC/VDC A16L-Δ-T1-1
			DPDT	100/110 VAC/VDC A16L-Δ-T1-2

Note: An LED rated 24 VAC/VDC is built-in.

Switch Units with Screw-less Clamp Connectors

Appearance	Classification			Model
	Standard loads and microloads	DPDT	Non-lighted	A16-2S
			No voltage-reduction lighting	A16L-Δ-□-2S
			Voltage-reduc- tion lighting Note.	100/110 VAC/VDC A16L-Δ-T1-2S
				200/220 VAC/VDC A16L-Δ-T2-2S

Note: The 100-V models and 200-V models an LED rated 24 VAC/VDC is built-in.

Insert symbols in Δ and □.

Δ

□

Symbol	Color
R	Red
Y	Yellow
G	Green
W	White
A	Blue

Symbol	Type	Operating voltage
5D	LED	5 VDC
12D		12 VAC/VDC
24D		24 VAC/VDC

Note: If the Pushbutton is pure yellow (PY), use white (W) for the Switch Unit.

Ordering Information

Ordering Individually Pushbuttons, Lamps, Cases, and Switches can be ordered separately. Combinations that are not available as sets can be created using individual Units. Also, store the parts as spares for maintenance and repairs.

Pushbuttons

LED

Degree of protection	IP40			Oil-resistant IP66		
	Rectangular	Square	Round	Rectangular	Square	Round
Color						
Red	A16L-JR	A16L-AR	A16L-TR	A165L-JR	A165L-AR	A165L-TR
Yellow	A16L-JY	A16L-AY	A16L-TY	A165L-JY	A165L-AY	A165L-TY
Pure yellow	A16L-JPY	A16L-APY	A16L-TPY	A165L-JPY	A165L-APY	A165L-TPY
Green	A16L-JGY	A16L-AGY	A16L-TGY	A165L-JGY	A165L-AGY	A165L-TGY
White*	A16L-JW	A16L-AW	A16L-TW	A165L-JW	A165L-AW	A165L-TW
Blue	A16L-JA	A16L-AA	A16L-TA	A165L-JA	A165L-AA	A165L-TA

* Use this pushbutton color if the illumination color of the LED is white or pure white.

Non-lighted

Degree of protection	IP40			Oil-resistant IP66		
	Rectangular	Square	Round	Rectangular	Square	Round
Color						
Red	A16L-JR	A16L-AR	A16L-TR	A165L-JR	A165L-AR	A165L-TR
Yellow	A16L-JY	A16L-AY	A16L-TY	A165L-JY	A165L-AY	A165L-TY
Pure yellow	A16L-JPY	A16L-APY	A16L-TPY	A165L-JPY	A165L-APY	A165L-TPY
Green	A16L-JG	A16L-AG	A16L-TG	A165L-JG	A165L-AG	A165L-TG
White	A16L-JW	A16L-AW	A16L-TW	A165L-JW	A165L-AW	A165L-TW
Blue	A16L-JA	A16L-AA	A16L-TA	A165L-JA	A165L-AA	A165L-TA
Black	A16L-JB	A16L-AB	A16L-TB	A165L-JB	A165L-AB	A165L-TB

Ordering set combinations: Refer to pages 3 to 7.

■ Specifications: Refer to page 16.

■ Accessories, Replacement, and Tools: Refer to page 15.

Ordering Information

Ordering Individually Pushbuttons, Lamps, Cases, and Switches can be ordered separately. Combinations that are not available as sets can be created using individual Units. Also, store the parts as spares for maintenance and repairs.

Lamps LED

Operating voltage	High brightness 		
	5 VDC	12 VAC/VDC	24 VAC/VDC
Red	A16-5DSR	A16-12DSR	A16-24DSR
Yellow	A16-5DSY	A16-12DSY	A16-24DSY
Green	A16-5DSG	A16-12DSG	A16-24DSG
White *	A16-5DSW	A16-12DSW	A16-24DSW
Blue	A16-5DA	A16-12DA	A16-24DA
Pure white	A16-5DPW	A16-12DPW	A16-24DPW

Note: 1. If an LED lamp with normal brightness is needed, select a Lamp used in the A3C.

2. For voltage-reduction lighting use the A16-24D□. Only 24 VAC/VDC LED lamps can be used.

* Use the white LED together with white or pure yellow Pushbuttons.

Cases

Appearance	Classification			Model
	IP40	Momentary operation	Rectangular (2-way guard)	A16-CJM
			Square (2-way guard)	A16-CAM
			Round (projected)	A16-CTM
		Alternate operation	Rectangular (2-way guard)	A16-CJA
			Square (2-way guard)	A16-CAA
	Oil-resistant IP66	Momentary operation	Round (projected)	A16-CTA
			Rectangular (2-way guard)	A165-CJM
			Square (2-way guard)	A165-CAM
		Alternate operation	Round (projected)	A165-CTM
			Rectangular (2-way guard)	A165-CJA
			Square (2-way guard)	A165-CAA
			Round (projected)	A165-CTA

Ordering set combinations: Refer to pages 3 to 7.

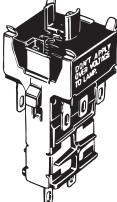
■ Specifications: Refer to page 16.
 ■ Accessories, Replacement, and Tools: Refer to page 15.

Ordering Information

Switches

Appearance	Classification		Model
Solder terminal			SPDT A16-1
			DPDT A16-2
PCB terminal	Lighted/non-lighted (common use)	Standard load/microload (common use)	SPDT A16-1P
			DPDT A16-2P
Screw-less Clamp			DPDT A16-2S
			

Switches with Reduced-voltage Lighting

Appearance	Classification		Model
Solder terminal	100 V		SPDT A16-T1-1
			DPDT A16-T1-2
Screw-less Clamp	100 V	Standard load/microload (common use)	A16-T1-2S
			A16-T2-2S
	200 V		

Note: For a Switch with Reduced-voltage Lighting, use the A16-24D□.

Ordering Information

Accessories, Replacements, and Tools

Accessories

Name	Appearance	Classification	Model	Remarks
Switch Guards		For rectangular models	A16ZJ-5050	Cannot be used with the Dust Cover.
		For square and round models	A16ZA-5050	
Dust Covers		For rectangular models	A16ZJ-5060	Cannot be used with the Switch Guard. Can be operated with the Dust Cover attached.
		For square models	A16ZA-5060	
		For round models	A16ZT-5060	
Panel Plugs		For rectangular models	A16ZJ-3003	Used for covering the panel cutouts for future panel expansion. Protective structure: IP40 Color: Black
		For square models	A16ZA-3003	
		For round models	A16ZT-3003	

Replacements

Name	Appearance	Classification	Model	Remarks
Legend Plates		Rectangular	Milky	A16ZJ-5204
		Square	Milky	A16ZA-5204
		Round	Milky	A16ZT-5204
Color Caps (for IP40)	Rectangular	LED lamp/nonlighted	White	A16Z□-5001W
			Red	A16Z□-5001R
			Yellow	A16Z□-5001Y
			Pure yellow	A16Z□-5001PY
			Blue	A16Z□-5001A
	Square	Non-lighted	Green	A16Z□-5001GY
			Green	A16Z□-5001G
			Black	A16Z□-5011B
			White	A16Z□-5101W
			Red	A16Z□-5101R
Non-lighted Color Caps (for oil-resistant IP66)	Round	LED lamp/nonlighted	Yellow	A16Z□-5101Y
			Pure yellow	A16Z□-5101PY
			Blue	A16Z□-5101A
			Green	A16Z□-5101GY
	LED lamp	Non-lighted	Green	A16Z□-5101G
			Black	A16Z□-5111B
			Black	A16Z□-5111B

Tools

Name	Appearance	Model	Applicable types					Remarks
			Pushbutton Switch	Knob-type Selector Switch	Key-type Selector Switch	Emergency Stop Switch	Indicator	
Operation Unit Extractor		A3PJ-5080	●	—	—	—	●	Convenient for extracting Pushbutton Switches
Screw Fitting		A16Z-3004	●	●	●	●	●	Convenient for ganged installation.
Socket Unit Lamp Extractor		A16Z-5080	●	●	●	●	●	Convenient for extracting the Switch and Lamps.

Specifications

Approved Standard Ratings

UL, cUL (File No. E41515)

5 A at 125 VAC, 3 A at 250 VAC (general use)
3 A at 30 VDC (resistive)

Note: Certification has been obtained for the Switch.
For detailed information on individual products that have received certification, consult your supplier.

Ratings

Switch Ratings

Rated voltage	Resistive load
125 VAC	5 A
250 VAC	3 A
30 VDC	3 A

Minimum applicable load: 1 mA at 5 VDC

Rated values are obtained from tests conducted under the following conditions.

1. Load: Resistive load
2. Mounting conditions: No vibration and no shock
3. Temperature: 20 ±2°C
4. Operating frequency: 20 operations/min

Contact Form

Name	Contact
DPDT	COM — NC — NO

Characteristics

Socket Unit

Item	Type	Pushbutton Switch
Allowable operating frequency	Mechanical	Momentary operation: 120 operations/minute max. Alternate operation: 60 operations/minute max.*1
	Electrical	20 operations/minute max. *1
Insulation resistance		100 MΩ min. (at 500V DC)
Contact resistance		100 mΩ max. (initial value)
Dielectric strength	Between terminals of same polarity	1,000 VAC, 50/60 Hz for 1 minute
	Between terminals of different polarity	2,000 VAC, 50/60 Hz for 1 minute
	Between each terminal and ground	2,000 VAC, 50/60 Hz for 1 minute
	Between lamp terminals	1,000 VAC, 50/60 Hz for 1 minute *2
Vibration resistance	Malfunction	10 to 55 Hz, 1.5-mm double amplitude (malfunction within 1 ms)
Shock resistance	Destruction	500 m/s² max.
	Malfunction	150 m/s² max. (malfunction within 1 ms)
Durability	Mechanical	Momentary operation: 2,000,000 operations min. Alternate operation: 200,000 operations min. *1
	Electrical	100,000 operations min. *1
Electric shock protection class		Class II
PTI (tracking characteristic)		175
Degree of contamination		3 (IEC947-5-1)
Weight		Approx. 10 g (in the case of a lighted DPDT switch with solder terminals)
Degree of protection		IP40: A16, Oil-resistant IP66: A165 *3
Ambient operating temperature		-10°C to 55°C (with no icing or condensation)
Ambient operating humidity		35% to 85%RH
Ambient storage temperature		-25°C to 65°C (with no icing or condensation)

*1. Set and reset constitute one operation.

*2. With LED not mounted.

*3. Degree of protection from the front of the panel.

TÜV (EN60947-5-1) (Low Voltage Directive)

3 A at 250 VAC
3 A at 30 VDC

CCC (GB14048.5)

5 A at 125 VAC
3 A at 250 VAC
3 A at 30 VDC

Super-bright LED

Rated voltage	Rated current	Operating voltage	Internal limiting resistor
5 VDC	8 mA	5 VDC ±5%	Red, yellow, white: 300 Ω Green, blue, pure white: 160 Ω
12 VAC/VDC		12 VAC/VDC ±5%	Red, yellow, white: 1 kΩ Green, blue, pure white: 910 Ω
24 VAC/VDC		24 VAC/VDC ±5%	2.4 kΩ

Voltage-reduction Unit (LED Lamp)

Rated voltage	Operating voltage	Applicable lamp
110 VAC/VDC	100/110 VAC/VDC (90 to 121 V)	A16-24DS□ LED Lamp
220 VAC/VDC	200/220 VAC/VDC (180 to 242 V)	

Screw-less Clamp

Item		Screw-Less Clamp			
Recommended wire size		0.5 mm² twisted wire or 0.8 mm-dia. solid wire			
Usable wires and tensile strength	Twisted wire	0.3 mm²	0.5 mm²	0.75 mm²	1.25 mm²
	Solid wire	0.5 mm dia.	0.8 mm dia.	1.0 mm dia.	—
	Tensile strength	10 N	20 N	30 N	40 N
Length of exposed wire		10 ±1mm			
Compliant standards		JIS C 2811 Terminal Blocks for Industrial Use			

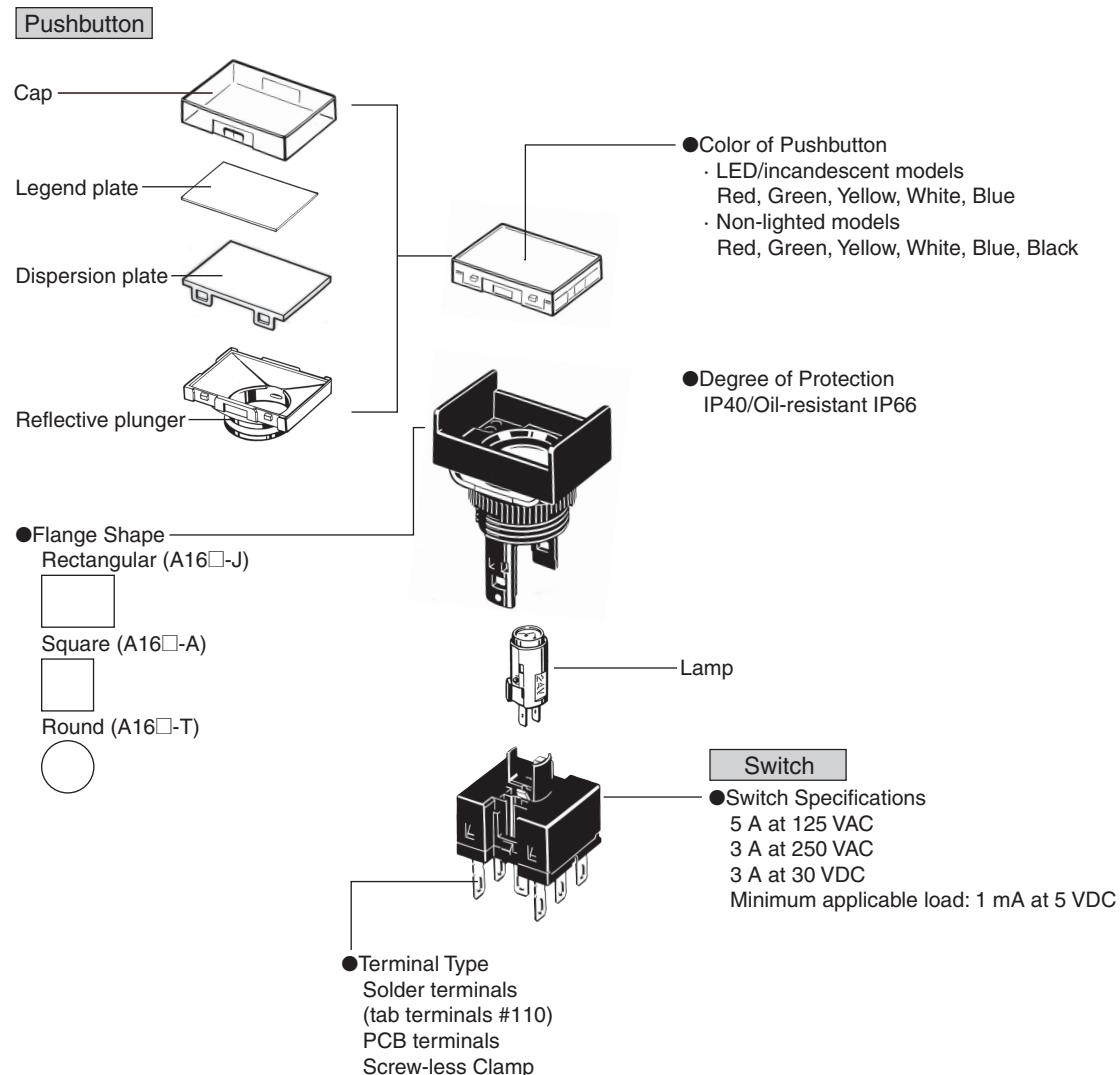
Operating Characteristics

Characteristics	Type	Pushbutton Switch	
	IP40	Oil-resistant IP66	
Operating force (OF) max.	4.41 N	4.91 N	
Releasing force (RF) min.		0.29 N	
Total travel (TT)		Approx. 3 mm	
Pretravel (PT) max.		2.5 mm	
Lock travel alternate (LTA) min. *		0.5 mm	

* Alternate operation models only.

Nomenclature

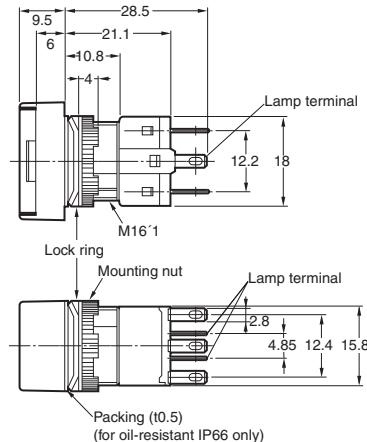
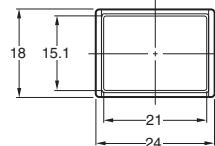
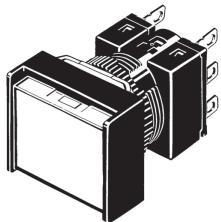
Model Structure



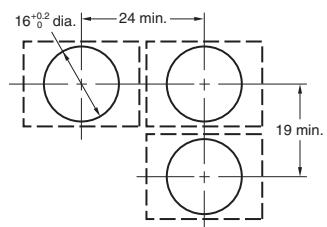
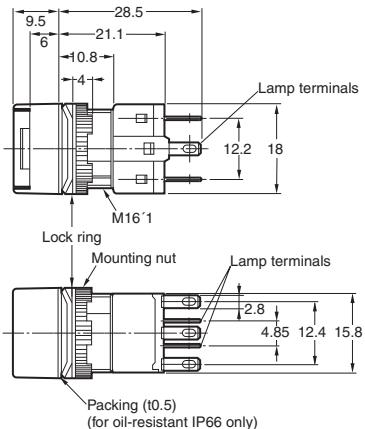
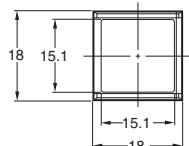
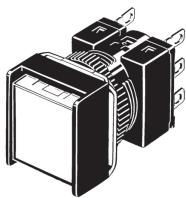
Dimensions

• The Dimension shows 2-switch outputs.

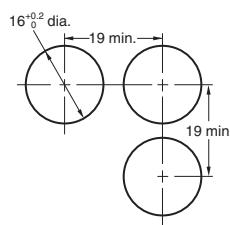
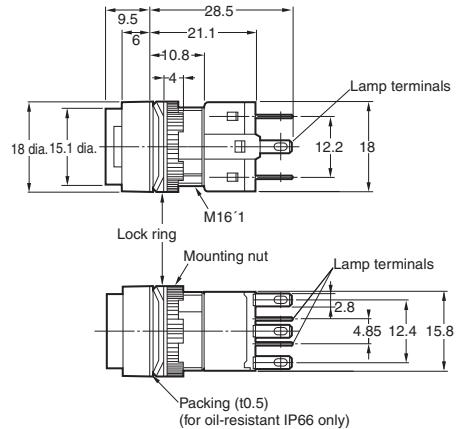
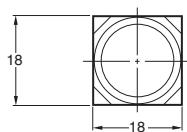
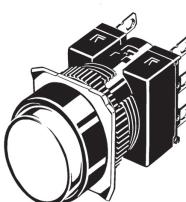
(Unit: mm)

Rectangular**A16□-J****Solder terminals (tab terminals #110)**

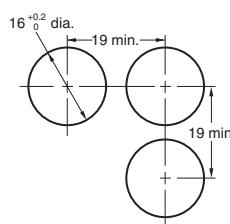
• See page 21 for panel cutouts

**Square****A16□-A****Solder terminals (tab terminals #110)**

• See page 21 for panel cutouts

**Round****A16□-T****Solder terminals (tab terminals #110)**

• See page 21 for panel cutouts



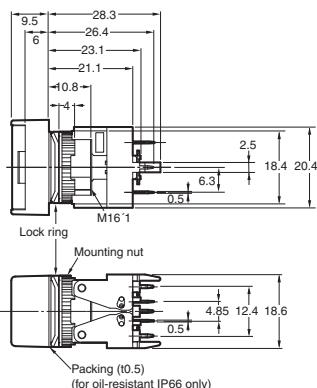
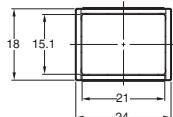
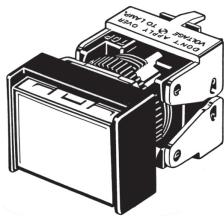
Dimensions

The Dimension shows 2-switch outputs. • The lamp terminal is also provided with non-lighted models. • A rectangular model is listed as an example. (Unit: mm)

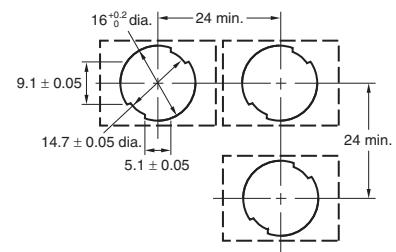
Rectangular

A16□-J□-□P

PCB terminals



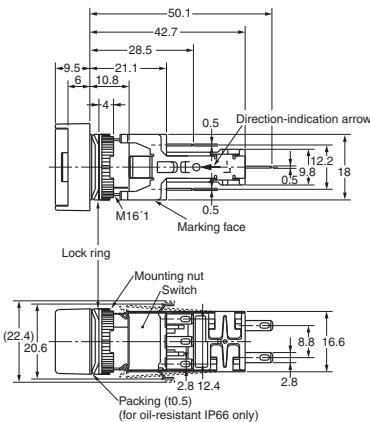
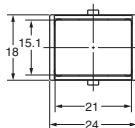
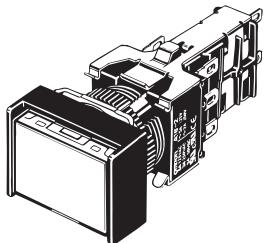
• See page 21 for panel cutouts



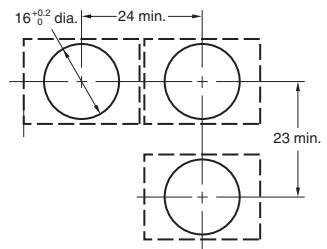
Rectangular

A16□-J□-T1

Voltage-reduction lighting, solder terminals
(tab terminals #110)



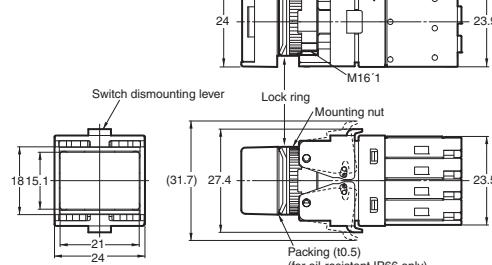
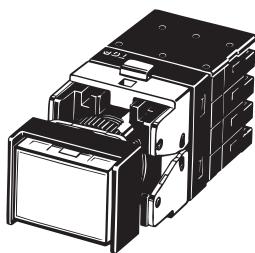
Panel Cutouts



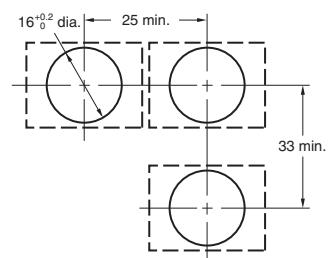
Rectangular

A16□-J□-2S, T1-2S, T2-2S

Screw-less Clamp



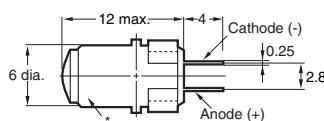
Panel Cutouts



Lamps

LED

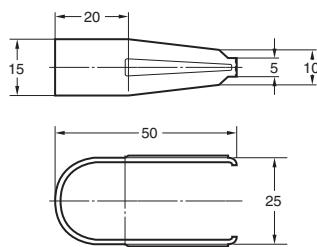
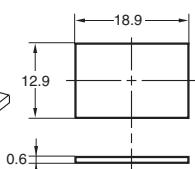
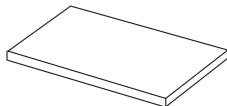
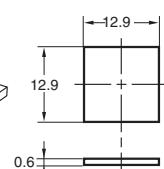
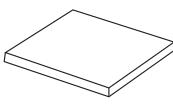
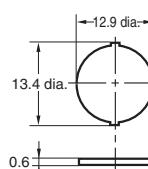
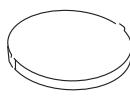
A16-5D□/-12D□/-24D□



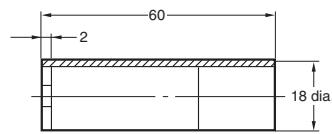
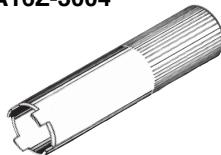
* The voltage display surface is the same color as the illumination color. The opposite surface is light gray.
(For pure white, the entire surface is light gray.)

Dimensions

(Unit: mm)

Accessories, Tools, and Components**Extractor
A3PJ-5080****Legend Plates
A16ZJ-5204****A16ZA-5204****A16ZT-5204**

Note: The panel is 0.6 mm thick.

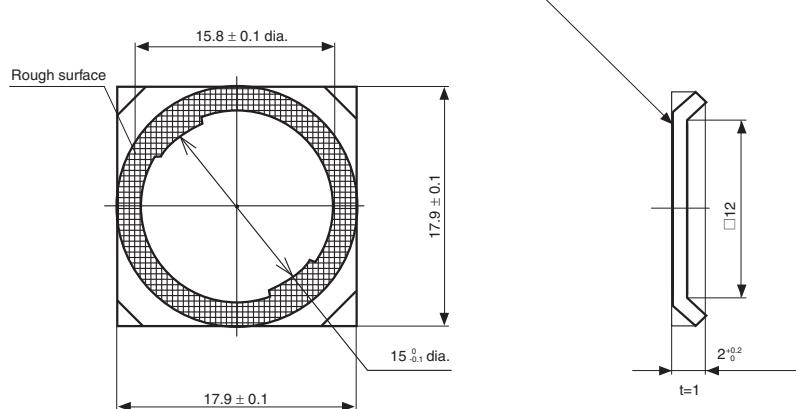
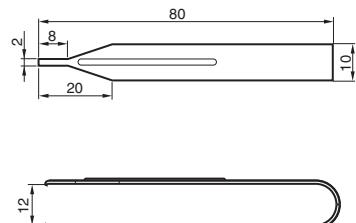
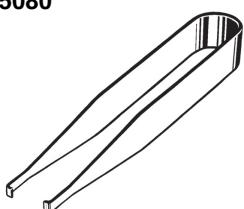
**Screw Fitting
A16Z-3004****Panel Plugs (Black Resin)**

Select the Plug that fits the panel design and mount from the front of the Panel. Panel cutouts are the same as those for Switches.

Protective structure: IP40

Color: Black

Rectangular	Square	Round
A16ZJ-3003	A16ZA-3003	A16ZT-3003

Lock Ring**Socket Unit Lamp Extractor
A16Z-5080**

Dimensions

(Unit: mm)

Panel Cutouts

Solder Terminals and Screw-less Clamp Connectors

Rectangular A16□-□J/M16□-□J	Square A16□-A/M16□-A Round A16□-T/M16□-T
(Top View) 	(Top View)

- Note:
- Make sure the thickness of the mounting panel is between 0.5 and 3.2 mm. If, however, a Switch Guard or Dust Cover is used, the thickness of the mounting panel must be between 0.5 and 2 mm.
 - If the panel is to be finished with coating, etc., make sure that the panel meets the specified dimensions after coating.
 - Figures in parentheses are for Screw-less Clamp Connectors.

PCB Terminals

Rectangular A16□-J/M16□-J	Square A16□-A/M16□-A Round A16□-T/M16□-T
(Top View) 	(Top View)

- Note:
- Ensure that the variation in the distance between the centers of neighboring mounting holes is less than ± 0.1 mm.
 - Make sure the thickness of the mounting panel is between 0.5 and 3.2 mm. If, however, a Switch Guard or Dust Cover is used, the thickness of the mounting panel must be between 0.5 and 2 mm.
 - If the panel is to be finished with coating, etc., make sure that the panel meets the specified dimensions after coating.

Terminal Arrangement

Models without Reduced-voltage Lighting (Non-lighted Pushbutton Switches are also provided with lamp terminals.)

Solder Terminals

Lighted SPDT Switches	Lighted DPDT Switches
<p>Dimensions of Terminal Holes Top hole: 16.0±0.2 mm Distance between top and middle hole: 24 min. (25 min.) Distance between middle and bottom hole: 19 min. (33 min.) Bottom hole: 16.0±0.2 mm</p> <p>Lamp terminal: 18 mm from the bottom hole</p> <p>Note: The L+ is not shown on the Switch.</p>	<p>Dimensions of Terminal Holes Top hole: 16.0±0.2 mm Distance between top and middle hole: 24 min. Distance between middle and bottom hole: 19 min. (25 min.) Bottom hole: 16.0±0.2 mm</p> <p>Lamp terminal: 18 mm from the bottom hole</p> <p>Note: The L+ is not shown on the Switch.</p>

Dimensions

(Unit: mm)

PCB Terminals (Lamp terminals are also present on non-lighted models.)

Lighted SPDT Switches	Lighted DPDT Switches
<p>Dimensions of PCB Terminals</p> <p>Model, rating, and lot number indication</p> <p>Lamp terminal ($t=0.5$)</p> <p>PCB Cutouts (Bottom View)</p> <p>Side with TOP indicated</p> <p>A ± 0.1</p> <p>12.4 ± 0.05</p> <p>20 ± 0.1</p> <p>4.85 ± 0.05</p> <p>Five, 1 dia.</p> <p>Two, 5 dia.</p> <p>6.3 ± 0.05</p> <p>L ± 0.1</p> <p>A = 24 min.: Rectangular A = 21 min.: Square or round L = 24 min. Use a PCB with a thickness of 1.6 mm.</p> <p>Note: Secure the panel to the board using stud bolts if force will be applied to the board after wiring.</p>	<p>Dimensions of PCB Terminals</p> <p>Model, rating, and lot number indication</p> <p>Lamp terminal ($t=0.5$)</p> <p>PCB Cutouts (Bottom View)</p> <p>Side with TOP indicated</p> <p>A ± 0.1</p> <p>12.4 ± 0.05</p> <p>20 ± 0.1</p> <p>4.85 ± 0.05</p> <p>6.3 ± 0.05</p> <p>Two, 5 dia.</p> <p>6.3 ± 0.05</p> <p>Eight, 1 dia.</p> <p>A = 24 min.: Rectangular A = 21 min.: Square or round L = 24 min. Use a PCB with a thickness of 1.6 mm.</p> <p>Note: Secure the panel to the board using stud bolts if force will be applied to the board after wiring.</p>

Terminal Arrangement**Voltage-reduction Lighting (Lamp terminals are also present on non-lighted models.)****Solder Terminals**

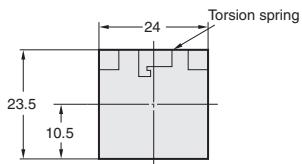
DPDT lighted models	DPDT lighted models
<p>(Bottom view)</p> <p>Side with direction arrow</p> <p>NC</p> <p>NO</p> <p>COM</p> <p>SW 1</p> <p>SW 2</p>	<p>Black (Release button)</p> <p>Red (Release button)</p> <p>White (Release button)</p> <p>Black (Release button)</p> <p>Black (Release button)</p> <p>Red (Release button)</p> <p>Side indicating TOP</p> <p>NC1</p> <p>NO1</p> <p>COM1</p> <p>C1</p> <p>NC2</p> <p>NO2</p> <p>COM2</p> <p>C2</p> <p>12-3.1 dia. (Insertion hole)</p>

- The voltage-reduction circuit is built in.

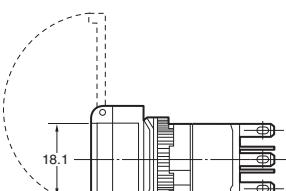
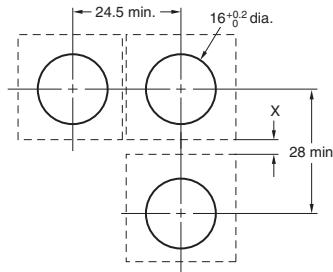
- Voltage-reduction lighting models with Screw-Less Clamps (A16L-□T1-2S, A16L-□T2-2S) incorporate voltage-reduction circuits.

Dimensions

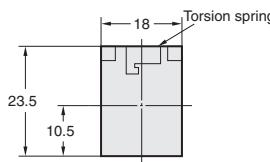
(Unit: mm)

Accessory Dimensions Mounted**Dimensions with Switch Guard Installed****Rectangular
A16ZJ-5050**

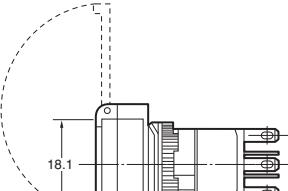
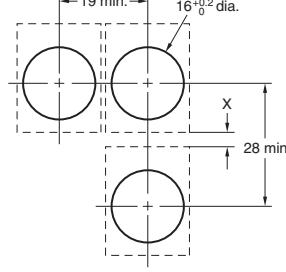
Panel Cutout (Top View)



Note: This example is for when X is 4.5 mm.
If X is not required, the Switches can be mounted with a minimum vertical installation pitch of 24 mm min.

**Square
A16ZA-5050**

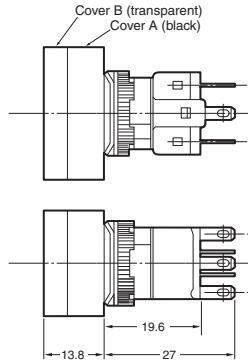
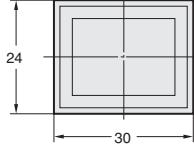
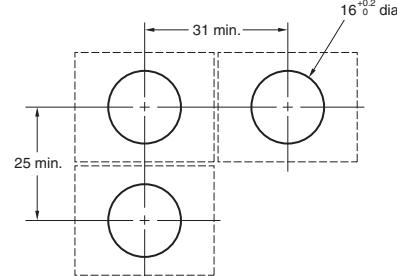
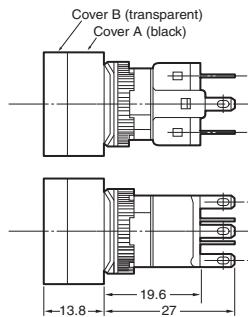
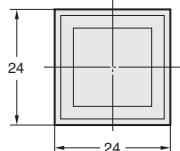
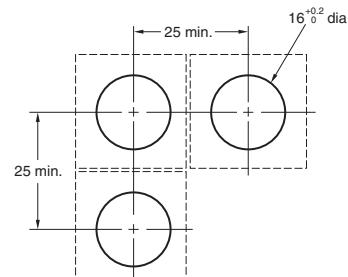
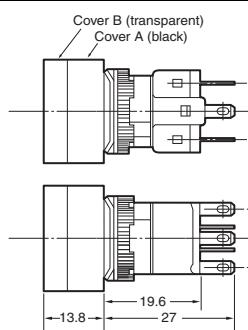
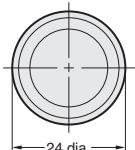
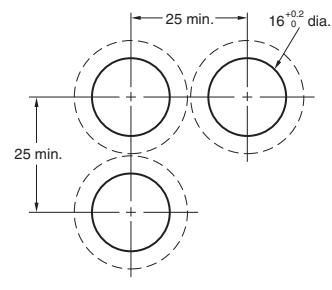
Panel Cutout (Top View)



Note: This example is for when X is 4.5 mm.

If X is not required, the Switches can be mounted with a minimum vertical installation pitch of 24 mm min.

If PCB terminals are used, provide X must be 24 mm or larger.

Dust Covers**Rectangular
A16ZJ-5060****Panel Cutouts****Square
A16ZA-5060****Panel Cutouts****Round
A16ZT-5060****Panel Cutouts**

Safety Precautions

Refer to ***Safety Precautions for All Pushbutton Switches/Indicators.***

WARNING

Do not apply a voltage between the incandescent lamp and the terminal that is greater than the rated voltage. If the LED is broken, the operating part may pop out.



Precautions for Correct Use

Mounting

- Always make sure that the power is turned OFF before mounting, removing, or wiring the Switch, or performing maintenance.
- Do not tighten the mounting nut more than necessary using tools such as pointed-nose pliers. Doing so will damage the mounting nut.

The tightening torque is 0.29 to 0.49 N·m.

Wiring

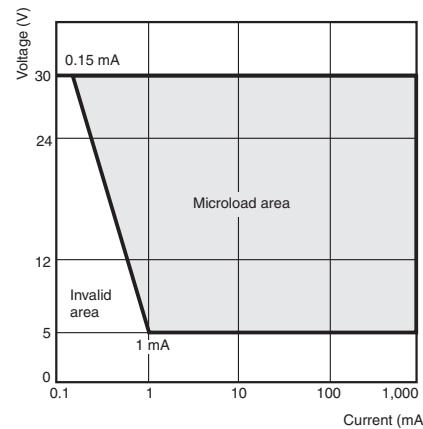
- Solder terminals and quick-connect terminals (#110) are commonly used for terminals.
- Be sure to use electrical wires that are a size appropriate for the applied voltage and carry current (conductor size is 0.5 to 0.75 mm²). Perform soldering according to the conditions provided below. If the soldering is not properly performed, the lead wires will become detached, resulting in short-circuits.
 - Hand soldering: 350°C, within 3 s
 - Dip soldering: 350°C, within 3 s
 Wait for one minute after soldering before exerting any external force on the solder.
- Use non-corrosive resin fluid as the flux.
- Make sure that the electric cord is wired so that it does not touch the Unit. If the electric cord touches the Unit, then electric wires with a heat resistance of 100°C min. must be used.
- After wiring the Switch, maintain an appropriate clearance and creepage distance.

Operating Environment

- This Switch is intended for indoor use only. Using the Switch outdoors will cause the Switch to fail. If IP40 models are used in locations subject to dust, metallic particles, or oil, be careful that none of these penetrates the Switch.
- The IP66 model is designed with a degree of protection so that it will not sustain damage if it is subjected to water from any direction to the front of the panel.
- Do not use the Switch submerged in oil or water, or in locations continuously subject to splashes of oil or water. Doing so may result in oil or water entering the Switch.

Using the Microload

- Insert a contact protection circuit, if necessary, to prevent the reduction of life expectancy due to extreme wear on the contacts caused by loads where inrush current occurs when the contact is opened and closed.
- The A16 allows both a standard load (125 V at 5A, 250 V at 3 A) and a microload. If a standard load is applied, however, the microload area cannot be used. If the microload area is used with a standard load, the contact surface will become rough, and the opening and closing of the contact for a microload may become unreliable.
- The minimum applicable load is the N-level reference value. This value indicates the malfunction reference level for the reliability level of 60% (λ_{60}) (conforming to JIS C5003). The equation, $\lambda_{60} = 0.5 \times 10^6 / \text{operations}$ indicates that the estimated malfunction rate is less than 1/2,000,000 operations with a reliability level of 60%.



LED

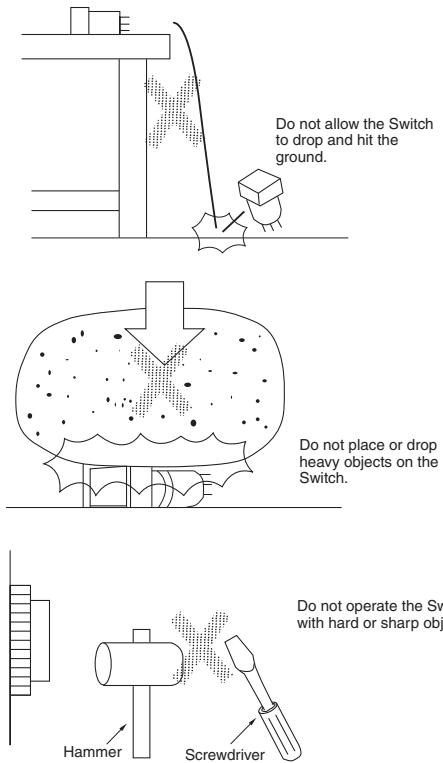
- The LED current-limiting resistor is built-in, so external resistance is not required. LEDs with a rated voltage of 12 or 24 V have a built-in diode bridge and no polarity. LEDs with a rated voltage of 5 V have polarity.

Rated voltage	Internal limiting resistor
5 VDC	Red, yellow, white: 300 Ω Green, blue, pure white: 160 Ω
12 VAC/VDC	Red, yellow, white: 1 kΩ Green, blue, pure white: 910 Ω
24 VAC/VDC	2.4 kΩ

Others

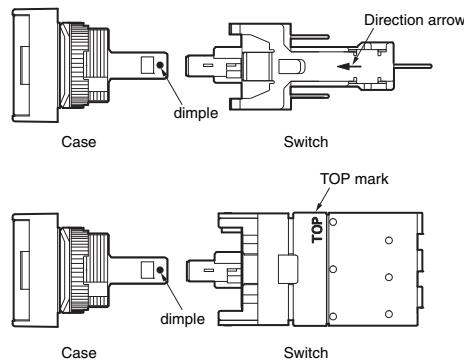
- The oil-resistant IP66 uses NBR rubber and is resistant to general cutting oil and cooling oil. Some particular oils cannot be used with the oil-resistant IP66, however, so contact your OMRON representative for details.
- The durability of the Switch depends in the switching conditions. Always test the Switch under actual application conditions to confirm applicability and use the Switch only for the number of switching operations that will not affect performance. Continuing to use the Switch with degraded performance will eventually result in insulation faults between circuits, burning of the Switch, or other failures.
- If the panel is to be finished with coating, etc., make sure that the panel meets the specified dimensions after the coating.
- Do not subject the Switch to extreme shock or vibration. Doing so will cause malfunctions and damage to the Switch.
- Do not let sharp objects come into contact with the Switches that are made of resin. Doing so will damage the Switches, causing scratches on the outside of the operating parts, and malfunction. When handling the Switches, do not throw or drop them.

- Rubber is used inside IP66 models. Do not allow the rubber to become scratched or foreign matter to become attached to the rubber. Scratches and foreign matter will degrade the waterproofing, and the Switch may fail operate correctly.



Precautions

- The mounting panel thickness must be 0.5 to 3.2 mm.
- The mounting ring must be tightened to a torque 0.29 to 0.49 N·m.
- The procedure for making the mounting hole for the screw-less clamp connector is described on page 21. A mounting dimension of at least 33 mm is required, however, because the Switch is removed with the screw-less clamp connector mounted to the panel. If Switches are mounted side-by-side separated by less than the specified distance, it may not be possible to remove the Switch.
- Be sure to mount the Case to the Switch with the correct orientation. Mount with the dimple on the Case facing in the same direction as the side of the Switch with the direction arrow or the word TOP.



- Bend the end of the wire if braided wire is used with the screw-less clamp connector.
- When wiring, insert the wire until it comes into contact with something. After wiring is completed, pull on the wires to confirm that they are connected securely.
- After wiring, ensure that continuous pressure is not applied to the terminals.
- Refer to internal connection diagrams and confirm the terminal numbers before wiring.

Screw-less Clamp Wiring Procedure

Connecting Wires

- Strip the wires for 10 mm (allowable range: 10 ± 1 mm).
- If braided wire is used, twist the wire to straighten it out.
- Insert the wire into the insertion hole while pressing the release button at the side of the hole. (Using a precision screwdriver is recommended.)
- Let go of the release button to lock the wire into place.
- After locking, pull on the wire gently to confirm that it is securely locked.

Removing Wires

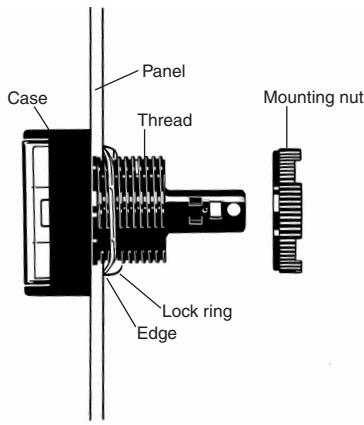
- Remove wires by pulling them while pressing the release button.
- Note: When reusing wires that have already been locked one, cut off the end of the wire and strip the wire again before using.

Panel Mounting

After mounting the Pushbutton Unit to the panel, snap in the Switch from the back of the panel.

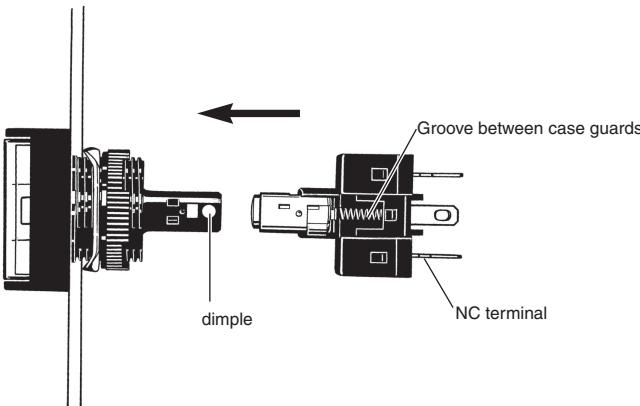
Mounting to the Panel

- Insert the Pushbutton Unit into the front of the panel, and fix the lock ring and mounting nut from the terminal side.
- Make sure that the lock ring is aligned with the thread of the Case and the edge of the lock ring is touching the panel.
- Tighten the mounting nuts to a torque of 0.29 to 0.49 N·m.



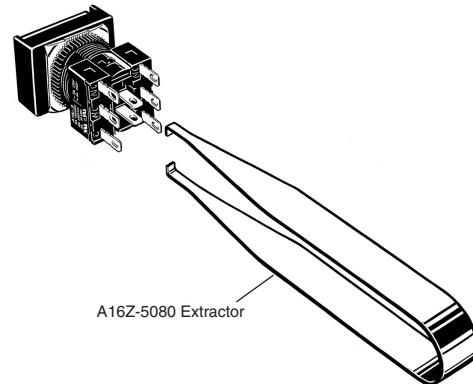
Mounting the Switch Unit

- Snap on the Switch Unit to the Pushbutton Unit.
- Make sure that the Switch Unit has the correct orientation when snapping it onto the Case. Align the dimple on the Case with the groove between the case guards on the NC terminal side of the Switch Unit in the way shown below, and push the Switch Unit into the Case until it clicks into place. Confirm that the Switch Unit is securely in place before using.



Removing the Switch Unit

- Grip the part between the Switch holder of the Case and the Switch Unit using the A16Z-5080 Extractor, and pull to remove the Switch Unit.



Note: Refer to page 21 for PCB terminals.

Engraving

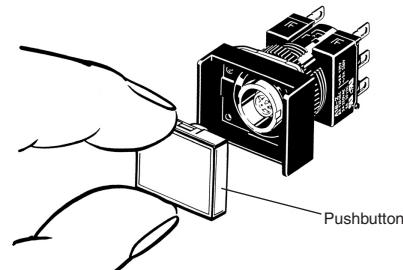
Engraving the Legend Plate

- The characters must not be engraved deeper than 0.4 mm.
- Apply an alcohol-based paint coating, such as melamine, phthalate, or acrylic resin paint coating.

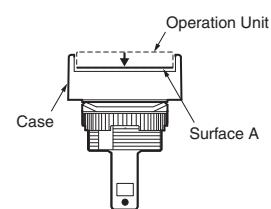
Mounting and Replacing the Pushbutton

Removing and Mounting the Pushbutton

- (1) Remove the Pushbutton as shown in the following diagram. If the Pushbutton cannot be removed by hand, use the A3PJ-5080 Extractor.

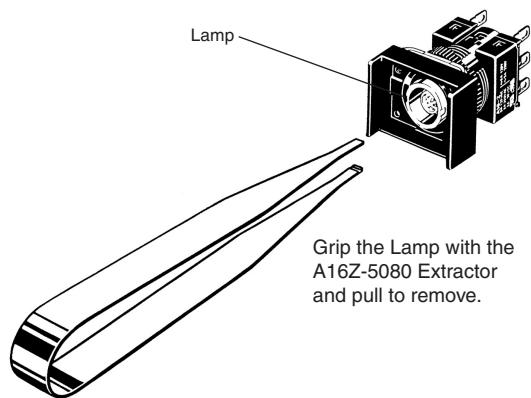


- (2) When mounting the Operation Unit to the Case, press the entire surface of the Operation Unit to surface A of the Case as shown in the following diagram.



Removing the Lamp

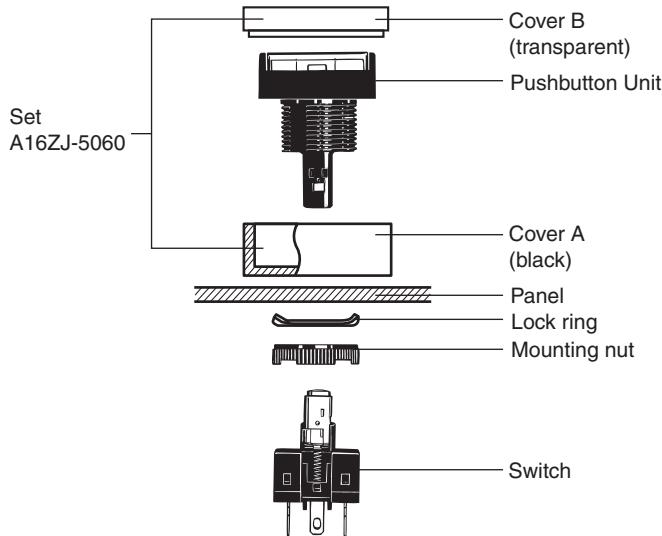
(1) Removing from the Pushbutton End



(2) Removing from the Switch End

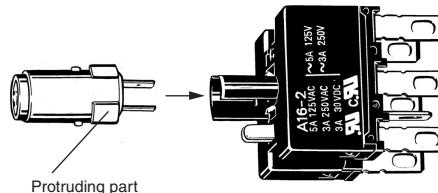
The Lamp can be removed by hand once the Switch is removed using the A16Z-5080 Extractor.

Mounting the A16Z Dust Cover



Installing the Lamp

- When mounting the Lamp, make sure it is facing the direction shown in the following diagram. Insert the Lamp while matching the protruding part of the Lamp and the small guides on the outer surface of the Case.

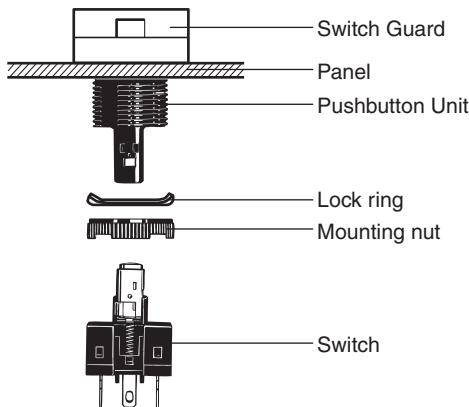


- The Lamp can be mounted from the Pushbutton end by using the A16Z-5080 Extractor.

The lamp can be mounted by following the opposite procedure for removing the Lamp.

- Separate the Dust Cover into 2 parts: cover A and cover B.
 - Insert the Case (Pushbutton Unit) into cover A.
 - Mount these parts together onto the panel.
 - From the back of the panel, mount the lock ring and secure with the mounting nut.
 - Insert cover B into cover A. Ensure that the entire perimeter of cover B is securely attached to cover A by pressing in different directions.
 - Mount the Switch to the Case.
- Note: Recommended panel thickness: 0.5 to 2 mm.

Mounting the A16Z Switch Guard



- Insert the Case (Pushbutton Unit) into the Switch Guard.
 - Mount these parts together onto the panel.
 - From the back of the panel, mount the lock ring and secure with the mounting nut.
 - Mount the Switch to the Case.
- Note: Recommended panel thickness: 0.5 to 2 mm.

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NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY OR IN LARGE QUANTITIES WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCT(S) IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

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Change in Specifications.

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Errors and Omissions.

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In the interest of product improvement, specifications are subject to change without notice.

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