

# Pushbutton Switches A22NN/A22NL

**22-mm dia. Pushbutton Switches**  
Control panel miniaturization through a more compact design and modified wiring direction.  
Addition of Push-In Plus terminal blocks for easy wiring.



### Easy to Use

- Improved wiring visibility through to a modified wiring direction. (Push-In Plus terminal block type)
- Screw terminal block structure is compatible with round crimp terminals. (Screw terminal block type)
- The terminals can be secured even when a contact block is mounted. (Screw terminal block type)
- Contact Blocks can be attached in any direction for easy assembly.

### Miniaturization


- No need for extra lateral space because of the modified wiring direction. (Push-In Plus terminal block type)
- Compact design.
- A22NL (lighted models) are the same size as A22NN (non-lighted models).

### Safety

- Easy-to-operate lock lever for secure locking.
- Easy-mounting Contact Blocks provide finger protection.
- No loose connections of wiring means maintenance-free use. (Push-In Plus terminal block type)

### Product Lineup

- Meet global safety standards.
- Can be installed in two types of panel hole dimensions: 22.3 and 25.5 dia.
- The buttons and bezels come in a wide variety of colors, shapes, and materials.
- Compliant with IEC IP66, Certified for UL508 Type 4X, 13.

 Refer to *Safety Precautions for All Pushbutton Switches/Indicators and Safety Precautions* on page 85.









## Button Colors

Non-lighted Switches	A22NN-□□□-N□ Opaque		Red	Green	Yellow	White	Blue	Black	
									
Lighted Switches	A22NL-□□□-T□ Transparent	When not lit	Red	Green	Yellow	White	Blue	Orange	White
									
		When lit	Red	Green	Yellow	White	Blue	Orange	Opaque white*
									

\* The colors when the Switches are lit are for transparent white buttons (code: TW) and yellow LED Lamps (code: Y).

Pushbutton Switches A22N  
 Selector Switches A22N  
 Key-type Selector Switches A22N  
 Indicators M22N  
 Pushbutton Switches A30N  
 Selector Switches A30N  
 Key-type Selector Switches A30N  
 Subassemblies (Common)  
 Accessories and Tools  
 Safety Precautions

# List of Models

Screw Terminal Blocks/Push-In Plus Terminal Blocks	
Plastic bezels	Brushed metal bezels
A22N□-BN	A22N□-MN
<p>Flat</p> 	<p>Flat</p> 
<p>A22N□-BP</p> <p>Projected</p> 	<p>A22N□-MP</p> <p>Projected</p> 
<p>A22N□-BG</p> <p>Full guard</p> 	<p>A22N□-MG</p> <p>Full guard</p> 
<p>A22N□-BM</p> <p>Mushroom</p> 	<p>A22N□-MM</p> <p>Mushroom</p> 

Pushbutton Switches  
A22N

Selector Switches  
A22N

Key-Type Selector Switches  
A22N

Indicators  
M22N

Pushbutton Switches  
A30N

Selector Switches  
A30N

Key-Type Selector Switches  
A30N

Subassemblies  
(Common)

Accessories  
and Tools

Safety  
Precautions

# A22NN/A22NL

## Model Number Structure

### Model Number Legend

----- Shipped as a set that includes the Operation Unit, LED Lamp (lighted models only), Mounting Collar, Contact Block, and Lighting Unit (lighted models only).

For information on combinations, refer to *Ordering Information* on pages 5 to 8.

### Model Numbers for Sets

A 2 2 N <sup>(1)</sup> L - <sup>(2)</sup> BN <sup>(3)</sup> M - <sup>(4)</sup> TR <sup>(5)</sup> A - <sup>(6)</sup> G <sup>(7)</sup> 100 - <sup>(8)</sup> R <sup>(9)</sup> B

#### (1) Type

Code	Description
N	Non-lighted
L	Lighted

#### (2) Bezel Material and Button Shape

Code	Bezel material	Button shape
BN	Plastic	Flat
BP	Plastic	Projected
BG	Plastic	Full guard
BM	Plastic	Mushroom
MN	Brushed metal	Flat
MP	Brushed metal	Projected
MG	Brushed metal	Full guard
MM	Brushed metal	Mushroom

#### (3) Switch Action

Code	Description
M	Momentary
A	Alternate

#### (4) Button Transparency and Color and (8) LED Lamp Color

Lighted/non-lighted	Code (4)	Code (8)	Transparency	Button color	LED lamp color
Non-lighted	NR	N	Opaque	Red	---
	NG	N	Opaque	Green	
	NY	N	Opaque	Yellow	
	NW	N	Opaque	White	
	NA	N	Opaque	Blue	
	NB	N	Opaque	Black	
Lighted	TR	R	Transparent	Red	Red
	TG	G	Transparent	Green	Green
	TY	Y	Transparent	Yellow	Yellow
	TW	W	Transparent	White	White
	TA	A	Transparent	Blue	Blue
	TO	O	Transparent	Orange	Orange
	TW	Y	Transparent	White *	Yellow

\* The color is opaque white when the Switch is lit.

#### (5) Degree of Protection

Code	Description
A	Compliant with IEC IP66, Certified for UL508 Type 4X, 13

#### (6) Contacts and Terminals Specifications

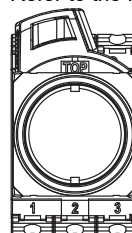
Code	Specification
G	General/Screw terminal block
P	General/Push-In Plus Terminal Block

#### (7) Contacts

Code	Contact Blocks		Unit position					
			Non-lighted			Lighted		
	NO	NC	1	2	3	1	2	3
100	1	0	NO	---	---	NO	Lighting Unit	---
002	0	1	---	---	NC	---	Lighting Unit	NC
101	2	0	NO	---	NO	NO	Lighting Unit	NO
102	1	1	NO	---	NC	NO	Lighting Unit	NC
202	0	2	NC	---	NC	NC	Lighting Unit	NC
111	3	0	NO	NO	NO			
112	2	1	NO	NO	NC			
122	1	2	NO	NC	NC			
222	0	3	NC	NC	NC			

**Note:** 1. NO (blue): Normally open, NC (orange): Normally closed.

2. Refer to the following figure for Unit positions.



#### (9) LED Lamp Voltage

Code	LED Lamp voltage
N	Non-lighted
A	6 VAC/DC
B	12 VAC/DC
C	24 VAC/DC
D	100/110/120 VAC
E	200/220/230/240 VAC



- Specifications: Refer to page 12.
- Dimensions: Refer to pages 14 to 16.

- Precautions for correct use: Refer to pages 85 to 96.
- Accessories and tools: Refer to pages 80 to 81.



# Ordering Information

**Model Numbers for Sets** - - - Shipped as a set that includes the Operation Unit, LED Lamp (lighted models only), Mounting Collar, Contact Block, and Lighting Unit (lighted models only).

## Non-lighted, Flat Switches

Appearance	Contacts	Momentary action (self-resetting)	Alternate action (self-holding)	(4)(4) Button color	(7)(7)(7) Contacts
		Model	Model		
	1	A22NN-BNM-(4)(4)A-G(7)(7)(7)-NN	A22NN-BNA-(4)(4)A-G(7)(7)(7)-NN	NR: Opaque, red NG: Opaque, green NY: Opaque, yellow NW: Opaque, white NA: Opaque, blue NB: Opaque, black	100 002
		A22NN-BNM-(4)(4)A-P(7)(7)(7)-NN	A22NN-BNA-(4)(4)A-P(7)(7)(7)-NN		
	2	A22NN-BNM-(4)(4)A-G(7)(7)(7)-NN	A22NN-BNA-(4)(4)A-G(7)(7)(7)-NN		101 102 202
		A22NN-BNM-(4)(4)A-P(7)(7)(7)-NN	A22NN-BNA-(4)(4)A-P(7)(7)(7)-NN		
	3	A22NN-BNM-(4)(4)A-G(7)(7)(7)-NN	A22NN-BNA-(4)(4)A-G(7)(7)(7)-NN		111 112 122 222
		A22NN-BNM-(4)(4)A-P(7)(7)(7)-NN	A22NN-BNA-(4)(4)A-P(7)(7)(7)-NN		
	1	A22NN-MNM-(4)(4)A-G(7)(7)(7)-NN	A22NN-MNA-(4)(4)A-G(7)(7)(7)-NN		100 002
		A22NN-MNM-(4)(4)A-P(7)(7)(7)-NN	A22NN-MNA-(4)(4)A-P(7)(7)(7)-NN		
	2	A22NN-MNM-(4)(4)A-G(7)(7)(7)-NN	A22NN-MNA-(4)(4)A-G(7)(7)(7)-NN		101 102 202
		A22NN-MNM-(4)(4)A-P(7)(7)(7)-NN	A22NN-MNA-(4)(4)A-P(7)(7)(7)-NN		
	3	A22NN-MNM-(4)(4)A-G(7)(7)(7)-NN	A22NN-MNA-(4)(4)A-G(7)(7)(7)-NN		111 112 122 222
		A22NN-MNM-(4)(4)A-P(7)(7)(7)-NN	A22NN-MNA-(4)(4)A-P(7)(7)(7)-NN		

## Lighted, Flat Switches

Appearance	Contacts	Momentary action (self-resetting)	Alternate action (self-holding)	(4)(4) Button color	(7)(7)(7) Contacts	(8) LED Lamp color	(9) LED Lamp voltage
		Model	Model				
	1	A22NL-BNM-(4)(4)A-G(7)(7)(7)-(8)(9)	A22NL-BNA-(4)(4)A-G(7)(7)(7)-(8)(9)	TR: Transparent, red TG: Transparent, green TY: Transparent, yellow TW: Transparent, white TA: Transparent, blue TO: Transparent, orange	100 002	R: Red G: Green Y: Yellow W: White A: Blue O: Orange	A: 6 VAC/DC B: 12 VAC/DC C: 24 VAC/DC D: 100/110/120 VAC E: 200/220/230/240 VAC
		A22NL-BNM-(4)(4)A-P(7)(7)(7)-(8)(9)	A22NL-BNA-(4)(4)A-P(7)(7)(7)-(8)(9)				
	2	A22NL-BNM-(4)(4)A-G(7)(7)(7)-(8)(9)	A22NL-BNA-(4)(4)A-G(7)(7)(7)-(8)(9)		101 102 202		
		A22NL-BNM-(4)(4)A-P(7)(7)(7)-(8)(9)	A22NL-BNA-(4)(4)A-P(7)(7)(7)-(8)(9)				
	1	A22NL-MNM-(4)(4)A-G(7)(7)(7)-(8)(9)	A22NL-MNA-(4)(4)A-G(7)(7)(7)-(8)(9)		100 002		
		A22NL-MNM-(4)(4)A-P(7)(7)(7)-(8)(9)	A22NL-MNA-(4)(4)A-P(7)(7)(7)-(8)(9)				
	2	A22NL-MNM-(4)(4)A-G(7)(7)(7)-(8)(9)	A22NL-MNA-(4)(4)A-G(7)(7)(7)-(8)(9)		101 102 202		
		A22NL-MNM-(4)(4)A-P(7)(7)(7)-(8)(9)	A22NL-MNA-(4)(4)A-P(7)(7)(7)-(8)(9)				

**Note:** Normally, the Button and LED Lamp with the same color are combined.  
 However, opaque white is available by combining a white Button and yellow LED. A22NN□-□□□-TWA-□□□□-Y□

■ Subassemblies: Refer to pages 9 to 11 and 78.  
 (You can order Operation Units, LED Lamps, Mounting Collars, and Contact Blocks individually.)

■ Specifications: Refer to page 12.  
 ■ Dimensions: Refer to pages 14 to 16.  
 ■ Accessories and tools: Refer to pages 80 to 81.



Pushbutton Switches  
 A22N  
 Selector Switches  
 A22N  
 Key-Type Selector Switches  
 A22N  
 Indicators  
 M22N  
 Pushbutton Switches  
 A30N  
 Selector Switches  
 A30N  
 Key-Type Selector Switches  
 A30N  
 Subassemblies (Common)  
 Accessories and Tools  
 Safety Precautions

# A22NN/A22NL



## Ordering Information

**Model Numbers for Sets** - - - Shipped as a set that includes the Operation Unit, LED Lamp (lighted models only), Mounting Collar, Contact Block, and Lighting Unit (lighted models only).

### Non-lighted, Projected Switches

Appearance	Contacts	Momentary action (self-resetting)	Alternate action (self-holding)	(4)(4) Button color	(7)(7)(7) Contacts
		Model	Model		
 Plastic bezels	1	A22NN-BPM-(4)(4)A-G(7)(7)-NN	A22NN-BPA-(4)(4)A-G(7)(7)-NN	NR: Opaque, red NG: Opaque, green NY: Opaque, yellow NW: Opaque, white NA: Opaque, blue NB: Opaque, black	100 002
		A22NN-BPM-(4)(4)A-P(7)(7)-NN	A22NN-BPA-(4)(4)A-P(7)(7)-NN		
	2	A22NN-BPM-(4)(4)A-G(7)(7)-NN	A22NN-BPA-(4)(4)A-G(7)(7)-NN		101 102 202
		A22NN-BPM-(4)(4)A-P(7)(7)-NN	A22NN-BPA-(4)(4)A-P(7)(7)-NN		
	3	A22NN-BPM-(4)(4)A-G(7)(7)-NN	A22NN-BPA-(4)(4)A-G(7)(7)-NN		111 112 122 222
		A22NN-BPM-(4)(4)A-P(7)(7)-NN	A22NN-BPA-(4)(4)A-P(7)(7)-NN		
 Brushed metal bezels	1	A22NN-MPM-(4)(4)A-G(7)(7)-NN	A22NN-MPA-(4)(4)A-G(7)(7)-NN	NR: Opaque, red NG: Opaque, green NY: Opaque, yellow NW: Opaque, white NA: Opaque, blue NB: Opaque, black	100 002
		A22NN-MPM-(4)(4)A-P(7)(7)-NN	A22NN-MPA-(4)(4)A-P(7)(7)-NN		
	2	A22NN-MPM-(4)(4)A-G(7)(7)-NN	A22NN-MPA-(4)(4)A-G(7)(7)-NN		101 102 202
		A22NN-MPM-(4)(4)A-P(7)(7)-NN	A22NN-MPA-(4)(4)A-P(7)(7)-NN		
	3	A22NN-MPM-(4)(4)A-G(7)(7)-NN	A22NN-MPA-(4)(4)A-G(7)(7)-NN		111 112 122 222
		A22NN-MPM-(4)(4)A-P(7)(7)-NN	A22NN-MPA-(4)(4)A-P(7)(7)-NN		

### Lighted, Projected Switches

Appearance	Contacts	Momentary action (self-resetting)	Alternate action (self-holding)	(4)(4) Button color	(7)(7)(7) Contacts	(8) LED Lamp color	(9) LED Lamp voltage
		Model	Model				
 Plastic bezels	1	A22NL-BPM-(4)(4)A-G(7)(7)-(8)(9)	A22NL-BPA-(4)(4)A-G(7)(7)-(8)(9)	TR: Transparent, red TG: Transparent, green TY: Transparent, yellow TW: Transparent, white TA: Transparent, blue TO: Transparent, orange	100 002	R: Red G: Green Y: Yellow W: White A: Blue O: Orange	A: 6 VAC/DC B: 12 VAC/DC C: 24 VAC/DC D: 100/110/120 VAC E: 200/220/230/240 VAC
		A22NL-BPM-(4)(4)A-P(7)(7)-(8)(9)	A22NL-BPA-(4)(4)A-P(7)(7)-(8)(9)				
	2	A22NL-BPM-(4)(4)A-G(7)(7)-(8)(9)	A22NL-BPA-(4)(4)A-G(7)(7)-(8)(9)		101 102 202		
		A22NL-BPM-(4)(4)A-P(7)(7)-(8)(9)	A22NL-BPA-(4)(4)A-P(7)(7)-(8)(9)				
 Brushed metal bezels	1	A22NL-MPM-(4)(4)A-G(7)(7)-(8)(9)	A22NL-MPA-(4)(4)A-G(7)(7)-(8)(9)	TR: Transparent, red TG: Transparent, green TY: Transparent, yellow TW: Transparent, white TA: Transparent, blue TO: Transparent, orange	100 002	R: Red G: Green Y: Yellow W: White A: Blue O: Orange	A: 6 VAC/DC B: 12 VAC/DC C: 24 VAC/DC D: 100/110/120 VAC E: 200/220/230/240 VAC
		A22NL-MPM-(4)(4)A-P(7)(7)-(8)(9)	A22NL-MPA-(4)(4)A-P(7)(7)-(8)(9)				
	2	A22NL-MPM-(4)(4)A-G(7)(7)-(8)(9)	A22NL-MPA-(4)(4)A-G(7)(7)-(8)(9)		101 102 202		
		A22NL-MPM-(4)(4)A-P(7)(7)-(8)(9)	A22NL-MPA-(4)(4)A-P(7)(7)-(8)(9)				

**Note:** Normally, the Button and LED Lamp with the same color are combined.  
 However, opaque white is available by combining a white Button and yellow LED. A22N□-□□□-TWA-□□□□-Y□



■ Subassemblies: Refer to pages 9 to 11 and 78.  
 (You can order Operation Units, LED Lamps, Mounting Collars, and Contact Blocks individually.)

■ Specifications: Refer to page 12.  
 ■ Dimensions: Refer to pages 14 to 16.  
 ■ Accessories and tools: Refer to pages 80 to 81.



# Ordering Information

**Model Numbers for Sets** - - - Shipped as a set that includes the Operation Unit, LED Lamp (lighted models only), Mounting Collar, Contact Block, and Lighting Unit (lighted models only).

## Non-lighted, Full-guard Switches

Appearance	Contacts	Momentary action (self-resetting)	Alternate action (self-holding)	(4)(4) Button color	(7)(7)(7) Contacts
		Model	Model		
	1	A22NN-BGM-(4)(4)A-G(7)(7)(7)-NN	A22NN-BGA-(4)(4)A-G(7)(7)(7)-NN	NR: Opaque, red NG: Opaque, green NY: Opaque, yellow NW: Opaque, white NA: Opaque, blue NB: Opaque, black	100 002
		A22NN-BGM-(4)(4)A-P(7)(7)(7)-NN	A22NN-BGA-(4)(4)A-P(7)(7)(7)-NN		
	2	A22NN-BGM-(4)(4)A-G(7)(7)(7)-NN	A22NN-BGA-(4)(4)A-G(7)(7)(7)-NN		101 102 202
		A22NN-BGM-(4)(4)A-P(7)(7)(7)-NN	A22NN-BGA-(4)(4)A-P(7)(7)(7)-NN		
	3	A22NN-BGM-(4)(4)A-G(7)(7)(7)-NN	A22NN-BGA-(4)(4)A-G(7)(7)(7)-NN		111 112 122 222
		A22NN-BGM-(4)(4)A-P(7)(7)(7)-NN	A22NN-BGA-(4)(4)A-P(7)(7)(7)-NN		
	1	A22NN-MGM-(4)(4)A-G(7)(7)(7)-NN	A22NN-MGA-(4)(4)A-G(7)(7)(7)-NN		100 002
		A22NN-MGM-(4)(4)A-P(7)(7)(7)-NN	A22NN-MGA-(4)(4)A-P(7)(7)(7)-NN		
	2	A22NN-MGM-(4)(4)A-G(7)(7)(7)-NN	A22NN-MGA-(4)(4)A-G(7)(7)(7)-NN		101 102 202
		A22NN-MGM-(4)(4)A-P(7)(7)(7)-NN	A22NN-MGA-(4)(4)A-P(7)(7)(7)-NN		
	3	A22NN-MGM-(4)(4)A-G(7)(7)(7)-NN	A22NN-MGA-(4)(4)A-G(7)(7)(7)-NN		111 112 122 222
		A22NN-MGM-(4)(4)A-P(7)(7)(7)-NN	A22NN-MGA-(4)(4)A-P(7)(7)(7)-NN		

## Lighted, Full-guard Switches

Appearance	Contacts	Momentary action (self-resetting)	Alternate action (self-holding)	(4)(4) Button color	(7)(7)(7) Contacts	(8) LED Lamp color	(9) LED Lamp voltage
		Model	Model				
	1	A22NL-BGM-(4)(4)A-G(7)(7)(7)-(8)(9)	A22NL-BGA-(4)(4)A-G(7)(7)(7)-(8)(9)	TR: Transparent, red TG: Transparent, green TY: Transparent, yellow TW: Transparent, white TA: Transparent, blue TO: Transparent, orange	100 002	R: Red G: Green Y: Yellow W: White A: Blue O: Orange	A: 6 VAC/DC B: 12 VAC/DC C: 24 VAC/DC D: 100/110/120 VAC E: 200/220/230/240 VAC
		A22NL-BGM-(4)(4)A-P(7)(7)(7)-(8)(9)	A22NL-BGA-(4)(4)A-P(7)(7)(7)-(8)(9)				
	2	A22NL-BGM-(4)(4)A-G(7)(7)(7)-(8)(9)	A22NL-BGA-(4)(4)A-G(7)(7)(7)-(8)(9)		101 102 202		
		A22NL-BGM-(4)(4)A-P(7)(7)(7)-(8)(9)	A22NL-BGA-(4)(4)A-P(7)(7)(7)-(8)(9)				
	1	A22NL-MGM-(4)(4)A-G(7)(7)(7)-(8)(9)	A22NL-MGA-(4)(4)A-G(7)(7)(7)-(8)(9)		100 002		
		A22NL-MGM-(4)(4)A-P(7)(7)(7)-(8)(9)	A22NL-MGA-(4)(4)A-P(7)(7)(7)-(8)(9)				
	2	A22NL-MGM-(4)(4)A-G(7)(7)(7)-(8)(9)	A22NL-MGA-(4)(4)A-G(7)(7)(7)-(8)(9)		101 102 202		
		A22NL-MGM-(4)(4)A-P(7)(7)(7)-(8)(9)	A22NL-MGA-(4)(4)A-P(7)(7)(7)-(8)(9)				

**Note:** Normally, the Button and LED Lamp with the same color are combined.  
 However, opaque white is available by combining a white Button and yellow LED. A22N□-□□□-TWA-□□□□-Y□

■ Subassemblies: Refer to pages 9 to 11 and 78.  
 (You can order Operation Units, LED Lamps, Mounting Collars, and Contact Blocks individually.)

■ Specifications: Refer to page 12.  
 ■ Dimensions: Refer to pages 14 to 16.  
 ■ Accessories and tools: Refer to pages 80 to 81.



Pushbutton Switches  
 A22N  
 Selector Switches  
 A22N  
 Key-Type Selector Switches  
 A22N  
 Indicators  
 M22N  
 Pushbutton Switches  
 A30N  
 Selector Switches  
 A30N  
 Key-Type Selector Switches  
 A30N  
 Subassemblies (Common)  
 Accessories and Tools  
 Safety Precautions

# A22NN/A22NL



## Ordering Information

**Model Numbers for Sets** - - - Shipped as a set that includes the Operation Unit, LED Lamp (lighted models only), Mounting Collar, Contact Block, and Lighting Unit (lighted models only).

### Non-lighted, Mushroom Switches

Appearance	Contacts	Momentary action (self-resetting)	Alternate action (self-holding)	(4)(4) Button color	(7)(7)(7) Contacts
		Model	Model		
 Plastic bezels	1	A22NN-BMM-(4)(4)A-G(7)(7)-NN	A22NN-BMA-(4)(4)A-G(7)(7)-NN	NR: Opaque, red NG: Opaque, green NY: Opaque, yellow NW: Opaque, white NA: Opaque, blue NB: Opaque, black	100 002
		A22NN-BMM-(4)(4)A-P(7)(7)-NN	A22NN-BMA-(4)(4)A-P(7)(7)-NN		
	2	A22NN-BMM-(4)(4)A-G(7)(7)-NN	A22NN-BMA-(4)(4)A-G(7)(7)-NN		101 102 202
		A22NN-BMM-(4)(4)A-P(7)(7)-NN	A22NN-BMA-(4)(4)A-P(7)(7)-NN		
	3	A22NN-BMM-(4)(4)A-G(7)(7)-NN	A22NN-BMA-(4)(4)A-G(7)(7)-NN		111 112 122 222
		A22NN-BMM-(4)(4)A-P(7)(7)-NN	A22NN-BMA-(4)(4)A-P(7)(7)-NN		
 Brushed metal bezels	1	A22NN-MMM-(4)(4)A-G(7)(7)-NN	A22NN-MMA-(4)(4)A-G(7)(7)-NN	NR: Opaque, red NG: Opaque, green NY: Opaque, yellow NW: Opaque, white NA: Opaque, blue NB: Opaque, black	100 002
		A22NN-MMM-(4)(4)A-P(7)(7)-NN	A22NN-MMA-(4)(4)A-P(7)(7)-NN		
	2	A22NN-MMM-(4)(4)A-G(7)(7)-NN	A22NN-MMA-(4)(4)A-G(7)(7)-NN		101 102 202
		A22NN-MMM-(4)(4)A-P(7)(7)-NN	A22NN-MMA-(4)(4)A-P(7)(7)-NN		
	3	A22NN-MMM-(4)(4)A-G(7)(7)-NN	A22NN-MMA-(4)(4)A-G(7)(7)-NN		111 112 122 222
		A22NN-MMM-(4)(4)A-P(7)(7)-NN	A22NN-MMA-(4)(4)A-P(7)(7)-NN		

### Lighted, Mushroom Switches

Appearance	Contacts	Momentary action (self-resetting)	Alternate action (self-holding)	(4)(4) Button color	(7)(7)(7) Contacts	(8) LED Lamp color	(9) LED Lamp voltage
		Model	Model				
 Plastic bezels	1	A22NL-BMM-(4)(4)A-G(7)(7)-(8)(9)	A22NL-BMA-(4)(4)A-G(7)(7)-(8)(9)	TR: Transparent, red TG: Transparent, green TY: Transparent, yellow TW: Transparent, white TA: Transparent, blue TO: Transparent, orange	100 002	R: Red G: Green Y: Yellow W: White A: Blue O: Orange	A: 6 VAC/DC B: 12 VAC/DC C: 24 VAC/DC D: 100/110/120 VAC E: 200/220/230/240 VAC
		A22NL-BMM-(4)(4)A-P(7)(7)-(8)(9)	A22NL-BMA-(4)(4)A-P(7)(7)-(8)(9)				
	2	A22NL-BMM-(4)(4)A-G(7)(7)-(8)(9)	A22NL-BMA-(4)(4)A-G(7)(7)-(8)(9)		101 102 202		
		A22NL-BMM-(4)(4)A-P(7)(7)-(8)(9)	A22NL-BMA-(4)(4)A-P(7)(7)-(8)(9)				
 Brushed metal bezels	1	A22NL-MMM-(4)(4)A-G(7)(7)-(8)(9)	A22NL-MMA-(4)(4)A-G(7)(7)-(8)(9)	TR: Transparent, red TG: Transparent, green TY: Transparent, yellow TW: Transparent, white TA: Transparent, blue TO: Transparent, orange	100 002	R: Red G: Green Y: Yellow W: White A: Blue O: Orange	A: 6 VAC/DC B: 12 VAC/DC C: 24 VAC/DC D: 100/110/120 VAC E: 200/220/230/240 VAC
		A22NL-MMM-(4)(4)A-P(7)(7)-(8)(9)	A22NL-MMA-(4)(4)A-P(7)(7)-(8)(9)				
	2	A22NL-MMM-(4)(4)A-G(7)(7)-(8)(9)	A22NL-MMA-(4)(4)A-G(7)(7)-(8)(9)		101 102 202		
		A22NL-MMM-(4)(4)A-P(7)(7)-(8)(9)	A22NL-MMA-(4)(4)A-P(7)(7)-(8)(9)				

**Note:** Normally, the Button and LED Lamp with the same color are combined.  
 However, opaque white is available by combining a white Button and yellow LED. A22N□-□□□-TWA-□□□□-Y□

■ Subassemblies: Refer to pages 9 to 11 and 78.  
 (You can order Operation Units, LED Lamps, Mounting Collars, and Contact Blocks individually.)

■ Specifications: Refer to page 12.  
 ■ Dimensions: Refer to pages 14 to 16.  
 ■ Accessories and tools: Refer to pages 80 to 81.

Pushbutton Switches  
A22N

Selector Switches  
A22N

Key-Type Selector Switches  
A22N

Indicators  
M22N

Pushbutton Switches  
A30N

Selector Switches  
A30N

Key-Type Selector Switches  
A30N

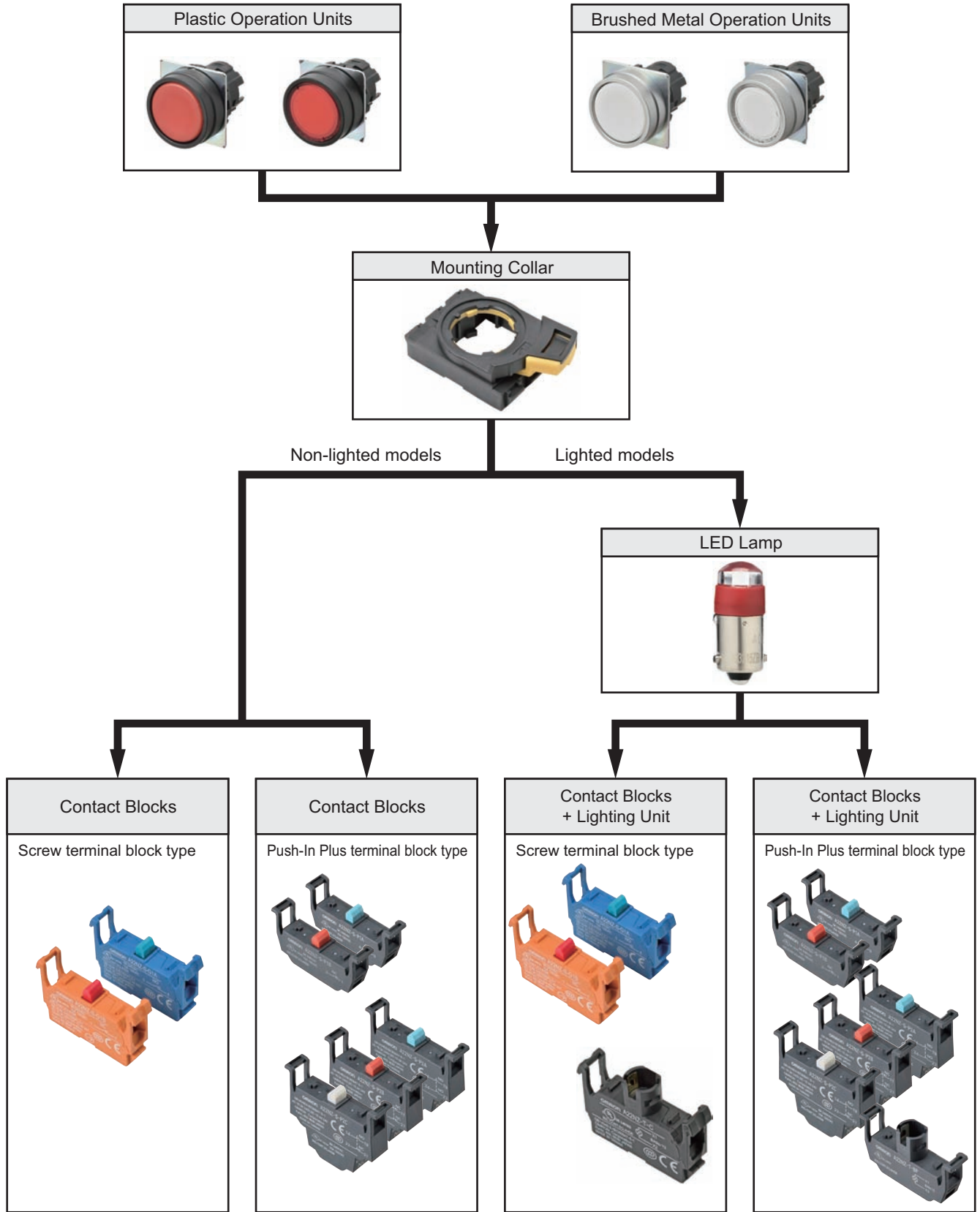
Subassemblies (Common)

Accessories and Tools

Safety Precautions

# Ordering Information

**Switch Structure** - - - You can order Operation Units, LED Lamps (lighted models only), Mounting Collars, Contact Blocks, and Lighting Units (lighted models only) separately. Use them in combination for models that are not available as assembled Switches. They can also be used as inventory for maintenance parts.



- Model numbers of sets: Refer to pages 5 to 8.
- Subassemblies (Common): Refer to page 78.

- Specifications: Refer to page 12.
- Dimensions: Refer to pages 14 to 16.
- Accessories and tools: Refer to pages 80 to 81.





Pushbutton Switches  
**A22N**  
 Selector Switches  
**A22N**  
 Key-type Selector Switches  
**A22N**  
 Indicators  
**M22N**  
 Pushbutton Switches  
**A30N**  
 Selector Switches  
**A30N**  
 Key-type Selector Switches  
**A30N**  
 Subassemblies (Common)  
 Accessories and Tools  
 Safety Precautions





# Ordering Information

## Subassemblies

-----You can order Operation Units, LED Lamps (lighted models only), Mounting Collars, Contact Blocks, and Lighting Units (lighted models only) separately. Use them in combination for models that are not available as assembled Switches. They can also be used as inventory for maintenance parts.

## Operation Units

Bezel material and button shape			Plastic, flat		Plastic, projected	
						
Lighted/ non-lighted	Switch Action		Momentary	Alternate	Momentary	Alternate
	Transparency	Color	Model	Model	Model	Model
Non-lighted	Opaque	Red	A22NZ-BNM-NRA	A22NZ-BNA-NRA	A22NZ-BPM-NRA	A22NZ-BPA-NRA
	Opaque	Green	A22NZ-BNM-NGA	A22NZ-BNA-NGA	A22NZ-BPM-NGA	A22NZ-BPA-NGA
	Opaque	Yellow	A22NZ-BNM-NYA	A22NZ-BNA-NYA	A22NZ-BPM-NYA	A22NZ-BPA-NYA
	Opaque	White	A22NZ-BNM-NWA	A22NZ-BNA-NWA	A22NZ-BPM-NWA	A22NZ-BPA-NWA
	Opaque	Blue	A22NZ-BNM-NAA	A22NZ-BNA-NAA	A22NZ-BPM-NAA	A22NZ-BPA-NAA
	Opaque	Black	A22NZ-BNM-NBA	A22NZ-BNA-NBA	A22NZ-BPM-NBA	A22NZ-BPA-NBA
Lighted	Transparent	Red	A22NZ-BNM-TRA	A22NZ-BNA-TRA	A22NZ-BPM-TRA	A22NZ-BPA-TRA
	Transparent	Green	A22NZ-BNM-TGA	A22NZ-BNA-TGA	A22NZ-BPM-TGA	A22NZ-BPA-TGA
	Transparent	Yellow	A22NZ-BNM-TYA	A22NZ-BNA-TYA	A22NZ-BPM-TYA	A22NZ-BPA-TYA
	Transparent	White	A22NZ-BNM-TWA	A22NZ-BNA-TWA	A22NZ-BPM-TWA	A22NZ-BPA-TWA
	Transparent	Blue	A22NZ-BNM-TAA	A22NZ-BNA-TAA	A22NZ-BPM-TAA	A22NZ-BPA-TAA
	Transparent	Orange	A22NZ-BNM-TOA	A22NZ-BNA-TOA	A22NZ-BPM-TOA	A22NZ-BPA-TOA

Bezel material and button shape			Plastic, full-guard		Plastic, mushroom	
						
Lighted/ non-lighted	Switch Action		Momentary	Alternate	Momentary	Alternate
	Transparency	Color	Model	Model	Model	Model
Non-lighted	Opaque	Red	A22NZ-BGM-NRA	A22NZ-BGA-NRA	A22NZ-BMM-NRA	A22NZ-BMA-NRA
	Opaque	Green	A22NZ-BGM-NGA	A22NZ-BGA-NGA	A22NZ-BMM-NGA	A22NZ-BMA-NGA
	Opaque	Yellow	A22NZ-BGM-NYA	A22NZ-BGA-NYA	A22NZ-BMM-NYA	A22NZ-BMA-NYA
	Opaque	White	A22NZ-BGM-NWA	A22NZ-BGA-NWA	A22NZ-BMM-NWA	A22NZ-BMA-NWA
	Opaque	Blue	A22NZ-BGM-NAA	A22NZ-BGA-NAA	A22NZ-BMM-NAA	A22NZ-BMA-NAA
	Opaque	Black	A22NZ-BGM-NBA	A22NZ-BGA-NBA	A22NZ-BMM-NBA	A22NZ-BMA-NBA
Lighted	Transparent	Red	A22NZ-BGM-TRA	A22NZ-BGA-TRA	A22NZ-BMM-TRA	A22NZ-BMA-TRA
	Transparent	Green	A22NZ-BGM-TGA	A22NZ-BGA-TGA	A22NZ-BMM-TGA	A22NZ-BMA-TGA
	Transparent	Yellow	A22NZ-BGM-TYA	A22NZ-BGA-TYA	A22NZ-BMM-TYA	A22NZ-BMA-TYA
	Transparent	White	A22NZ-BGM-TWA	A22NZ-BGA-TWA	A22NZ-BMM-TWA	A22NZ-BMA-TWA
	Transparent	Blue	A22NZ-BGM-TAA	A22NZ-BGA-TAA	A22NZ-BMM-TAA	A22NZ-BMA-TAA
	Transparent	Orange	A22NZ-BGM-TOA	A22NZ-BGA-TOA	A22NZ-BMM-TOA	A22NZ-BMA-TOA



■ Model numbers of sets: Refer to pages 5 to 8.  
 ■ Subassemblies (Common): Refer to page 78.


■ Specifications: Refer to page 12.  
 ■ Dimensions: Refer to pages 14 to 16.  
 ■ Accessories and tools: Refer to pages 80 to 81.

# Ordering Information

## Subassemblies

-----You can order Operation Units, LED Lamps (lighted models only), Mounting Collars, Contact Blocks, and Lighting Units (lighted models only) separately. Use them in combination for models that are not available as assembled Switches. They can also be used as inventory for maintenance parts.

Bezel material and button shape			Brushed metal, flat		Brushed metal, projected	
						
Lighted/ non-lighted	Switch Action		Momentary	Alternate	Momentary	Alternate
	Transparency	Color	Model	Model	Model	Model
Non-lighted	Opaque	Red	A22NZ-MNM-NRA	A22NZ-MNA-NRA	A22NZ-MPM-NRA	A22NZ-MPA-NRA
	Opaque	Green	A22NZ-MNM-NGA	A22NZ-MNA-NGA	A22NZ-MPM-NGA	A22NZ-MPA-NGA
	Opaque	Yellow	A22NZ-MNM-NYA	A22NZ-MNA-NYA	A22NZ-MPM-NYA	A22NZ-MPA-NYA
	Opaque	White	A22NZ-MNM-NWA	A22NZ-MNA-NWA	A22NZ-MPM-NWA	A22NZ-MPA-NWA
	Opaque	Blue	A22NZ-MNM-NAA	A22NZ-MNA-NAA	A22NZ-MPM-NAA	A22NZ-MPA-NAA
	Opaque	Black	A22NZ-MNM-NBA	A22NZ-MNA-NBA	A22NZ-MPM-NBA	A22NZ-MPA-NBA
Lighted	Transparent	Red	A22NZ-MNM-TRA	A22NZ-MNA-TRA	A22NZ-MPM-TRA	A22NZ-MPA-TRA
	Transparent	Green	A22NZ-MNM-TGA	A22NZ-MNA-TGA	A22NZ-MPM-TGA	A22NZ-MPA-TGA
	Transparent	Yellow	A22NZ-MNM-TYA	A22NZ-MNA-TYA	A22NZ-MPM-TYA	A22NZ-MPA-TYA
	Transparent	White	A22NZ-MNM-TWA	A22NZ-MNA-TWA	A22NZ-MPM-TWA	A22NZ-MPA-TWA
	Transparent	Blue	A22NZ-MNM-TAA	A22NZ-MNA-TAA	A22NZ-MPM-TAA	A22NZ-MPA-TAA
	Transparent	Orange	A22NZ-MNM-TOA	A22NZ-MNA-TOA	A22NZ-MPM-TOA	A22NZ-MPA-TOA

Bezel material and button shape			Brushed metal, full-guard		Brushed metal, mushroom	
						
Lighted/ non-lighted	Switch Action		Momentary	Alternate	Momentary	Alternate
	Transparency	Color	Model	Model	Model	Model
Non-lighted	Opaque	Red	A22NZ-MGM-NRA	A22NZ-MGA-NRA	A22NZ-MMM-NRA	A22NZ-MMA-NRA
	Opaque	Green	A22NZ-MGM-NGA	A22NZ-MGA-NGA	A22NZ-MMM-NGA	A22NZ-MMA-NGA
	Opaque	Yellow	A22NZ-MGM-NYA	A22NZ-MGA-NYA	A22NZ-MMM-NYA	A22NZ-MMA-NYA
	Opaque	White	A22NZ-MGM-NWA	A22NZ-MGA-NWA	A22NZ-MMM-NWA	A22NZ-MMA-NWA
	Opaque	Blue	A22NZ-MGM-NAA	A22NZ-MGA-NAA	A22NZ-MMM-NAA	A22NZ-MMA-NAA
	Opaque	Black	A22NZ-MGM-NBA	A22NZ-MGA-NBA	A22NZ-MMM-NBA	A22NZ-MMA-NBA
Lighted	Transparent	Red	A22NZ-MGM-TRA	A22NZ-MGA-TRA	A22NZ-MMM-TRA	A22NZ-MMA-TRA
	Transparent	Green	A22NZ-MGM-TGA	A22NZ-MGA-TGA	A22NZ-MMM-TGA	A22NZ-MMA-TGA
	Transparent	Yellow	A22NZ-MGM-TYA	A22NZ-MGA-TYA	A22NZ-MMM-TYA	A22NZ-MMA-TYA
	Transparent	White	A22NZ-MGM-TWA	A22NZ-MGA-TWA	A22NZ-MMM-TWA	A22NZ-MMA-TWA
	Transparent	Blue	A22NZ-MGM-TAA	A22NZ-MGA-TAA	A22NZ-MMM-TAA	A22NZ-MMA-TAA
	Transparent	Orange	A22NZ-MGM-TOA	A22NZ-MGA-TOA	A22NZ-MMM-TOA	A22NZ-MMA-TOA

- Model numbers of sets: Refer to pages 5 to 8.
- Subassemblies (Common): Refer to page 78.

- Specifications: Refer to page 12.
- Dimensions: Refer to pages 14 to 16.
- Accessories and tools: Refer to pages 80 to 81.

# A22NN/A22NL

## Specifications

### Certified Safety Standard Ratings

UL508 Type 4X, 13 (File No. E76675), CSA C22.2 No.14

6 A 240 VAC, 10 A 120 VAC

**TÜV (EN60947-5-1)**

AC-15 3 A 240 VAC

DC-13 4 A 24 VDC

**CCC (GB/T14048.5)**

AC-15 3 A 240 VAC

DC-13 4 A 24 VDC

### Application Standards

UL1059 and UL486E (Push-In Plus terminal block type)

### Ratings

#### Contacts (Standard Load)

<b>Rated insulation voltage</b>		600 V				
<b>Rated carry current</b>		10 A				
<b>Rated voltage</b>		24 V	120 V	240 V	380 V	440 V
<b>AC at 50/60 Hz</b>	Resistive load (AC-12)	10 A	10 A	6 A	2A	2 A
	Inductive load (AC-15)	10 A	6 A	3 A	1.9 A	1.6 A
<b>DC</b>	Resistive load (DC-12)	8 A	2.2 A	1.1 A	---	---
	Inductive load (DC-13)	4 A	1.1 A	0.55 A	---	---

**Note:** 1. The above ratings were obtained by conducting tests under the following conditions.

(1) Ambient temperature: 20 ±2°C

(2) Ambient humidity: 65% ±5% RH

(3) Operating frequency: 30 operations/minute

2. Minimum applicable load: 10 mA at 5 VDC.

### LED Lamps

Rated voltage	Applied voltage	Rated current
6 VAC/DC	6 VAC/DC ±10%	Approx. 11 mA (red, orange, yellow, or blue) Approx. 5 mA (white or green)
12 VAC/DC	12 VAC/DC ±10%	Approx. 12 mA (red, orange, yellow, or blue) Approx. 5 mA (white or green)
24 VAC/DC	24 VAC/DC ±10%	Approx. 12 mA (red, orange, yellow, or blue) Approx. 5 mA (white or green)
100 VAC	100 VAC ±10%	Approx. 12 mA (red, orange, yellow, or blue) Approx. 5 mA (white or green)
110 VAC	110 VAC ±10%	
120 VAC	100 to 130 VAC	
200 VAC	200 VAC ±10%	Approx. 12 mA (red, orange, yellow, or blue) Approx. 5 mA (white or green)
220 VAC	220 VAC ±10%	
230 VAC	230 VAC ±10%	
240 VAC	220 to 250 VAC	

Pushbutton Switches  
A22N

Selector Switches  
A22N

Key-type Selector Switches  
A22N

Indicators  
M22N

Pushbutton Switches  
A30N

Selector Switches  
A30N

Key-type Selector Switches  
A30N

Subassemblies  
(Common)

Accessories  
and Tools

Safety  
Precautions

# Specifications

## Characteristics

Item	Type	Pushbutton Switches	
		Non-lighted models	Lighted models
Allowable operating frequency	Mechanical	60 operations/minute max.	
	Electrical	30 operations/minute max.	
Insulation resistance		100 MΩ min. (at 500 VDC)	Not available for lighting units
Contact resistance		100 mΩ max. (initial value)	
Dielectric strength	Between terminals of same polarity	2,500 VAC at 50/60 Hz for 1 min. (initial value)	Not available for lighting units
	Between each terminal and ground	2,500 VAC at 50/60 Hz for 1 min. (initial value)	
Vibration resistance	Malfunction	10 to 55 Hz, 1.5-mm double amplitude (malfunction within 1 ms)	
Shock resistance	Malfunction	1,000 m/s <sup>2</sup> max. (malfunction within 1 ms)	
Durability	Mechanical	Momentary action: 5,000,000 operations min. Alternate action: 500,000 operations min.	
	Electrical	500,000 operations min. (250 VAC, 3 A, with an inductive load having power factor cos θ = 0.4)	
Ambient operating temperature <sup>*1</sup>		-25 to 70°C	-25 to 55°C
Ambient operating humidity		35% to 85% RH	
Ambient storage temperature <sup>*1</sup>		-40 to 80°C	
Degree of protection <sup>*2</sup>		Compliant with IEC IP66, Certified for UL508 Type 4X, 13	
Electric shock protection class		Class II	
PTI (tracking characteristic)		175	
Degree of contamination (application environment)		3 (EN 60947-5-1)	
Weight		Approx. 50 g (for 1NC/1NO)	Approx. 65 g (for 1NC/1NO)

\*1. With no icing or condensation.

\*2. Degree of protection from the front of the panel.

## Operating Characteristics (for SPST-NO/SPST-NC)

Item	Type	Pushbutton Switches
		Lighted/non-lighted
Total travel force (torque) (maximum TTF)		18 N
Total travel (TT)		6 mm max.
Resetting force (torque) (RF)		---

## Examples of Linked Contact Blocks (Screw terminal block type)

Contact Blocks       Lighting Units

	Pushbutton Switches			
	Momentary		Alternate	
	Lighted	Non-lighted	Lighted	Non-lighted
Linking example				

**Note:** If you increase the number of Contact Blocks, evaluate the Switch under actual working conditions before permanent installation and use the Switch within a number of switching operations that will not adversely affect the Switch's performance.

Pushbutton Switches  
 A22N  
 Selector Switches  
 A22N  
 Key-Type Selector Switches  
 A22N  
 Indicators  
 M22N  
 Pushbutton Switches  
 A30N  
 Selector Switches  
 A30N  
 Key-Type Selector Switches  
 A30N  
 Subassemblies (Common)  
 Accessories and Tools  
 Safety Precautions

# A22NN/A22NL

## Dimensions

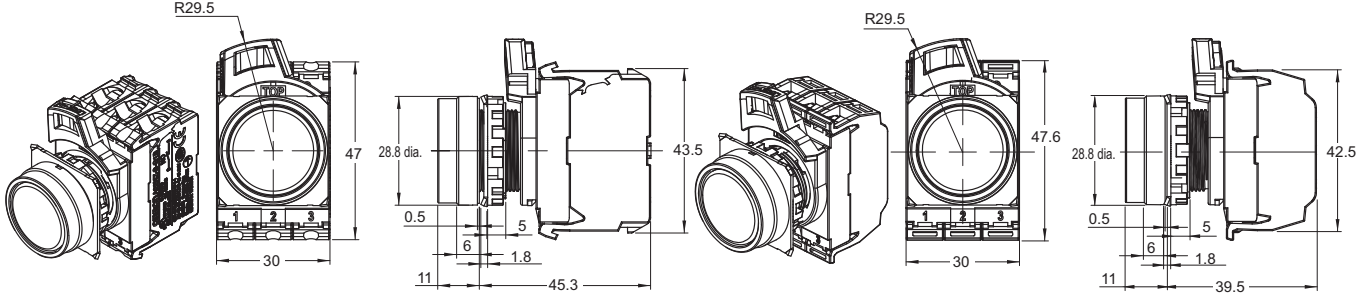
(Unit: mm)

### Lighted and Non-lighted Pushbutton Switches

#### Flat Switches with Plastic Bezels

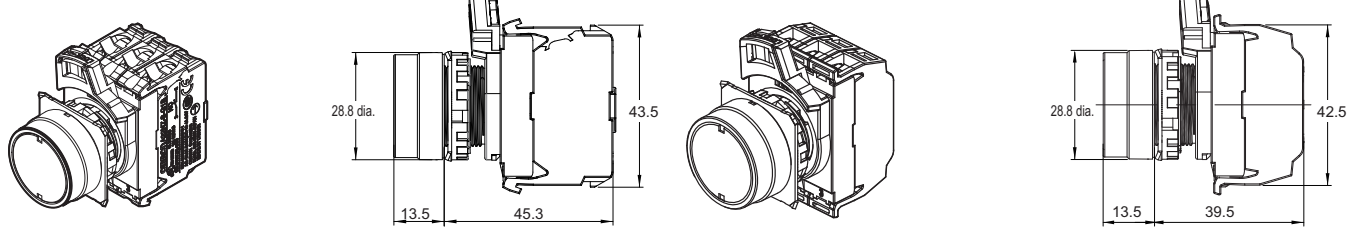
A22NN-BN□-N□A-G□-NN

A22NN-BN□-N□A-P□-NN



A22NL-BN□-T□A-G□-□□

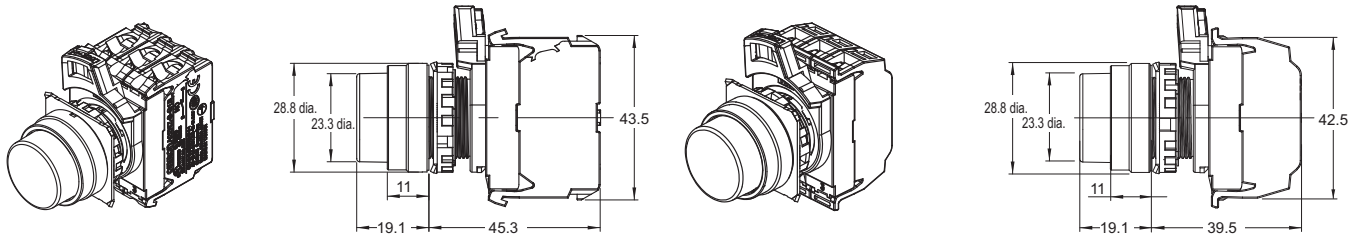
A22NL-BN□-T□A-P□-□□



#### Projected Switches with Plastic Bezels

A22N□-BP□-□A-G□-□□

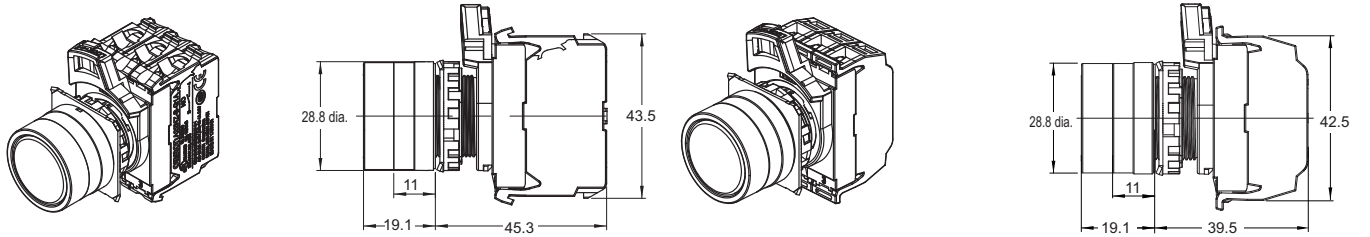
A22N□-BP□-□A-P□-□□



#### Full-guard Switches with Plastic Bezels

A22N□-BG□-□A-G□-□□

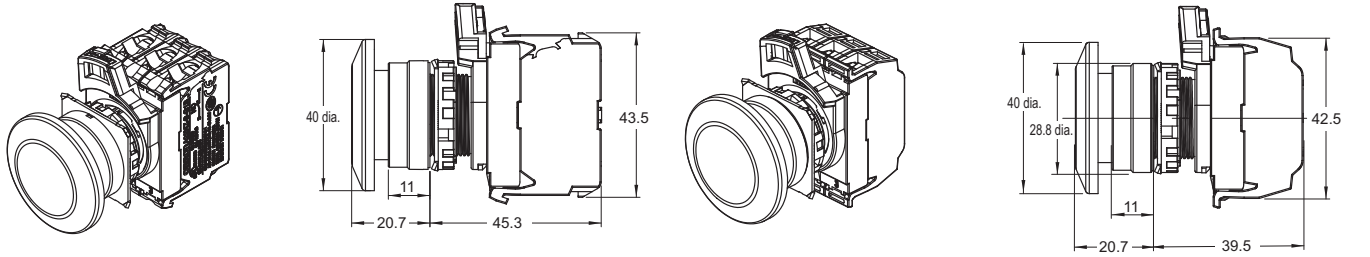
A22N□-BG□-□A-P□-□□



#### Mushroom Switches with Plastic Bezels

A22N□-BM□-□A-G□-□□

A22N□-BM□-□A-P□-□□

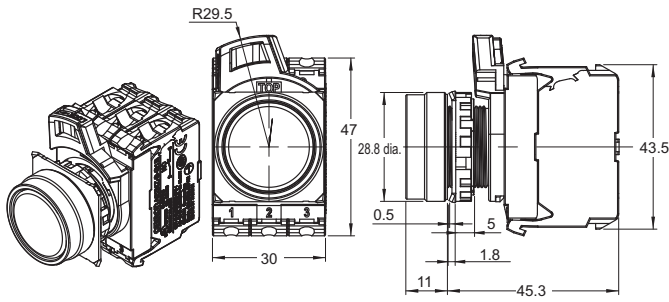


Dimensions

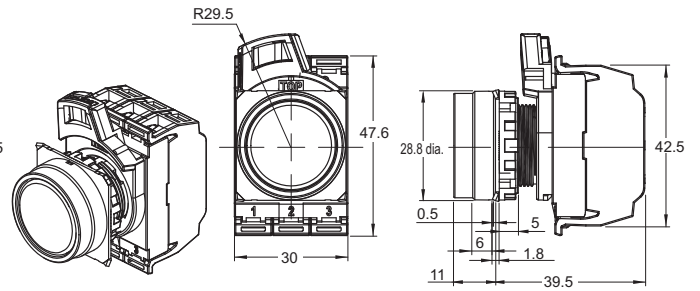
(Unit: mm)

Flat Switches with Brushed Metal Bezels

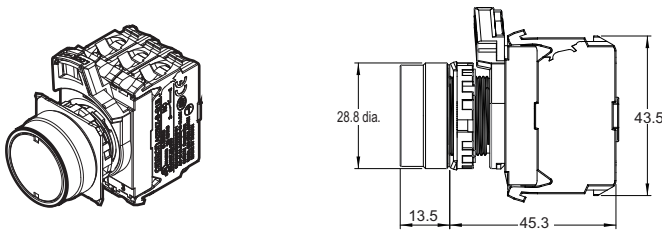
A22NN-MN□-N□A-G□-NN



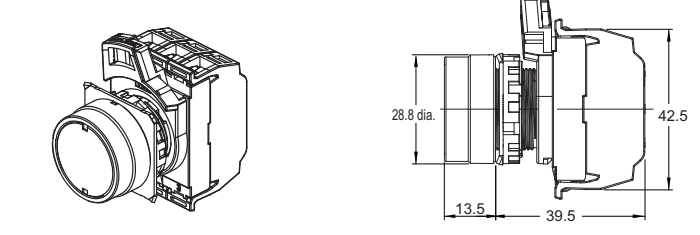
A22NN-MN□-N□A-P□-NN



A22NL-MN□-T□A-G□-□□

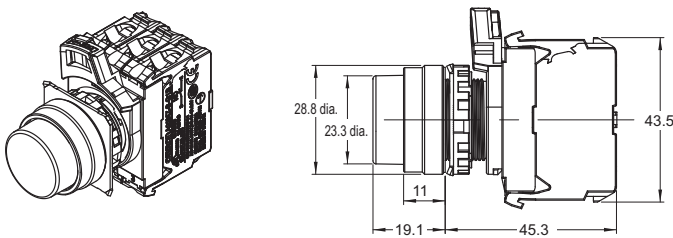


A22NL-MN□-T□A-P□-□□

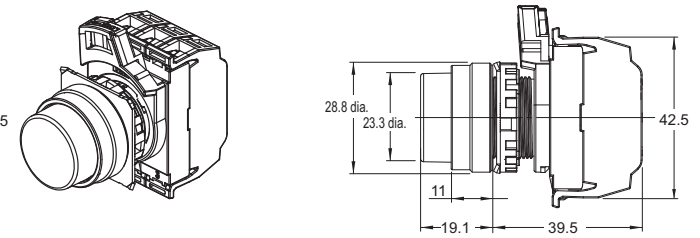


Projected Switches with Brushed Metal Bezels

A22N□-MP□-□A-G□-□□

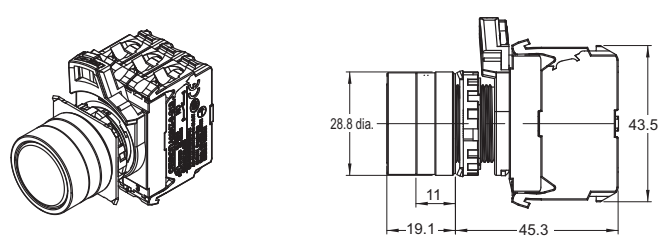


A22N□-MP□-□A-P□-□□

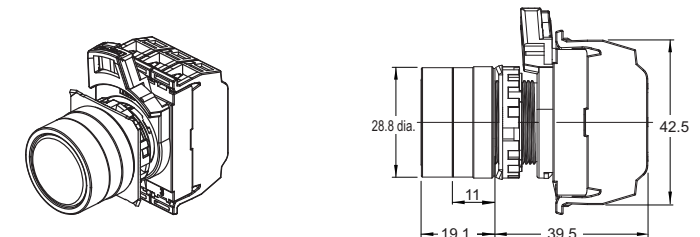


Full-guard Switches with Brushed Metal Bezels

A22N□-MG□-□A-G□-□□

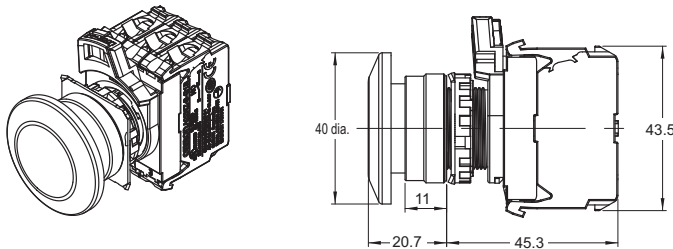


A22N□-MG□-□A-P□-□□

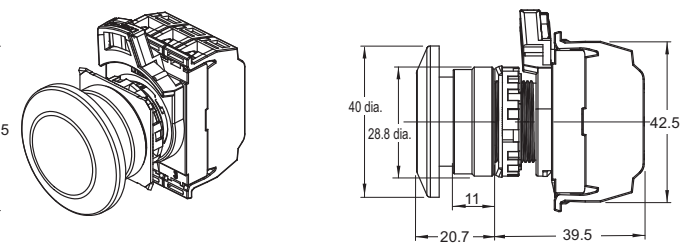


Mushroom Switches with Brushed Metal Bezels

A22N□-MM□-□A-G□-□□



A22N□-MM□-□A-P□-□□



Selector Switches  
A22N

Key-type Selector Switches  
A22N

Indicators  
M22N

Pushbutton Switches  
A30N

Selector Switches  
A30N

Key-type Selector Switches  
A30N

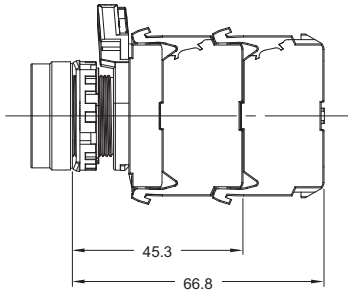
Subassemblies  
(Common)

Accessories  
and Tools

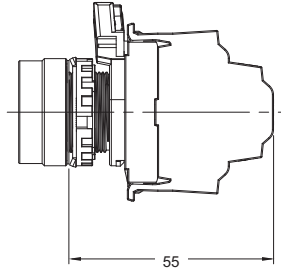
Safety  
Precautions

# A22NN/A22NL

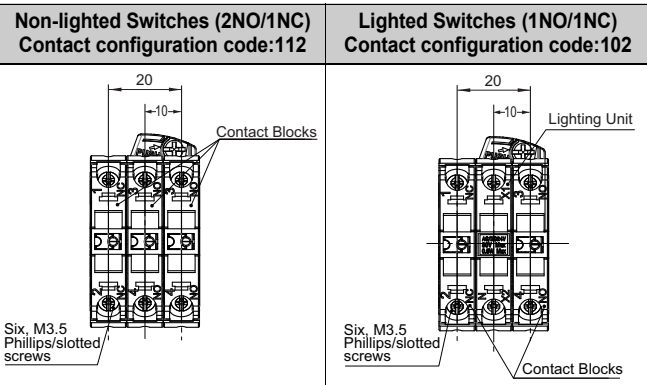
## Depth with Linked Units (Screw terminal block type)



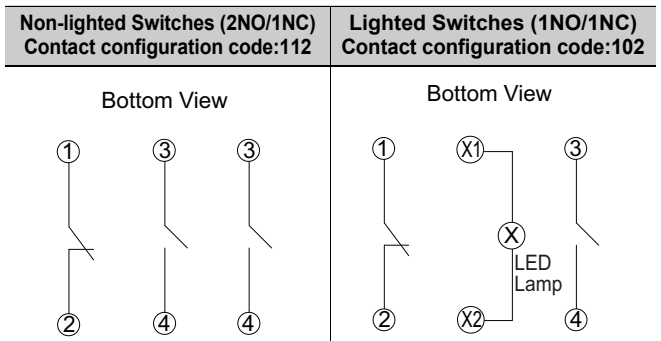
## Depth when a double-contact unit is mounted (Push-In Plus terminal block type)



## Terminal Arrangement BOTTOM VIEW (Screw terminal block type)

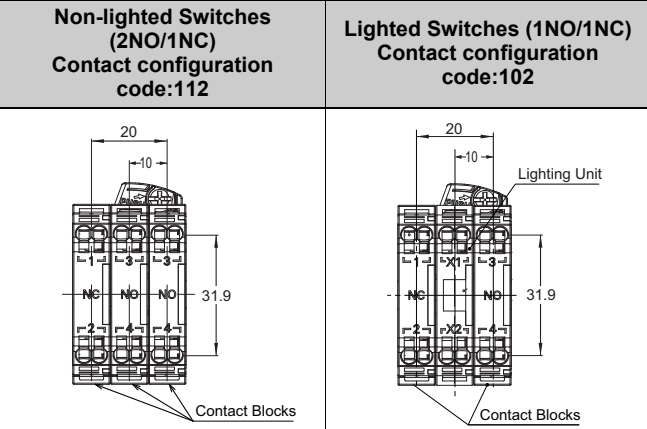


## Terminal Connection Diagrams

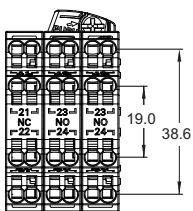


**Note:** The above shows a terminal connection diagram for a screw terminal block type.

## BOTTOM VIEW (Push-In Plus terminal block type)



## Double-contact unit Non-lighted (2NO/2NO/2NC)



Pushbutton Switches  
A22N

Selector Switches  
A22N

Key-type Selector Switches  
A22N

Indicators  
M22N

Pushbutton Switches  
A30N

Selector Switches  
A30N

Key-type Selector Switches  
A30N

Subassemblies  
(Common)

Accessories  
and Tools

Safety  
Precautions