

Selector Switches

A22NS/A22NW

22-mm dia. Knob-type Selector 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 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)

Miniaturization

- No need for extra lateral space because of the modified wiring direction. (Push-In Plus terminal block type)
- Compact design.
- A22NW (lighted models) are the same size as A22NS (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

- Meets 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.

Operation Unit Colors

			Red	Green	Black					
Non-lighted Switches	A22NS-□□□-N□ Opaque									
Lighted Switches	A22NW-□□□-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 Operation Units (code: TW) and yellow LED Lamps (code: Y).

List of Models

Screw Terminal Blocks/Push-In Plus Terminal Blocks			
Plastic bezels			
A22NS-□B		A22NW-□B	
Non-lighted		Lighted	
Two Positions	Three Positions	Two Positions	Three Positions
			
Screw Terminal Blocks/Push-In Plus Terminal Blocks			
Brushed Metal bezels			
A22NS-□M		A22NW-□M	
Non-lighted		Lighted	
Two Positions	Three Positions	Two Positions	Three Positions
			

Pushbutton Switches A22N
Selector Switches A22N
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Subassemblies (Common)
Accessories and Tools
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A22NS/A22NW

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 23 to 24.

Model Numbers for Sets

A 2 2 N ⁽¹⁾W - ⁽²⁾2B ⁽³⁾M - ⁽⁴⁾NR ⁽⁵⁾A - ⁽⁶⁾G ⁽⁷⁾101 - ⁽⁸⁾R ⁽⁹⁾A

(1) Type

Code	Type
S	Non-lighted
W	Lighted

(2) Number of Positions and Bezel Material

Code	No. of positions	Bezel material
2B	2	Plastic
2M	2	Brushed metal
3B	3	Plastic
3M	3	Brushed metal

(3) Reset Method

Code	Reset method		
M	Manual	Two-position manual	
		Three-position manual	
L	Automatic reset on left	Two-position automatic	
		Three-position left automatic	
R	Automatic reset on right	Three-position right automatic	
B	Automatic reset on left and right	Three-position left or right automatic	

(4) Operation Unit Transparency and Color and (8) LED Lamp Color

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

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

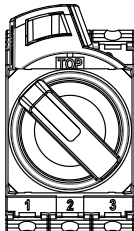
(5) Degree of Protection

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

(7) Contact Configuration

Code	Contact Blocks		Non-lighted						Lighted					
			Unit position			No. of positions			Unit position			No. of positions		
	NO	NC	1	2	3	Two positions	Three positions		1	2	3	Two positions	Three positions	
100	1	0	NO	---	---	Yes			NO	Lighting Unit	---	Yes		
002	0	1	---	---	NC	Yes			---	Lighting Unit	NC	Yes		
101	2	0	NO	---	NO	Yes	Yes		NO	Lighting Unit	NO	Yes	Yes	
102	1	1	NO	---	NC	Yes	Yes		NO	Lighting Unit	NC	Yes	Yes	
201	1	1	NC	---	NO		Yes		NC	Lighting Unit	NO		Yes	
202	0	2	NC	---	NC	Yes	Yes		NC	Lighting Unit	NC	Yes	Yes	
110	2	0	NO	NO	---		Yes							
111	3	0	NO	NO	NO	Yes	Yes							
112	2	1	NO	NO	NC	Yes	Yes							
210	1	1	NC	NO	---		Yes							
211	2	1	NC	NO	NO		Yes							
212	1	2	NC	NO	NC		Yes							
011	2	0	---	NO	NO		Yes							
012	1	1	---	NO	NC		Yes							
120	1	1	NO	NC	---		Yes							
121	2	1	NO	NC	NO		Yes							
122	1	2	NO	NC	NC	Yes	Yes							
220	0	2	NC	NC	---		Yes							
221	1	2	NC	NC	NO		Yes							
222	0	3	NC	NC	NC	Yes	Yes							
021	1	1	---	NC	NO		Yes							
022	0	2	---	NC	NC		Yes							

Note: 1. NO (blue): Normally open, NC (orange): Normally closed.
2. Refer to the following figure for the 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 page 30.

■ Characteristics: Refer to page 29.
■ Precautions for correct use: Refer to pages 85 to 96.

Structure

Contact Configuration Table

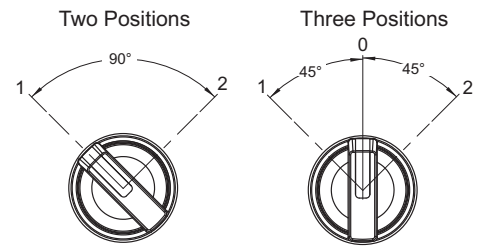
Two Positions

No. of outputs	Code	Contact configuration	Unit position	Contacts	Position	
					1	2
1	100	SPST-NO	1	NO		ON
			2	---	---	---
			3	---	---	---
1	002	SPST-NC	1	---	---	---
			2	---	---	---
			3	NC	ON	
2	102	SPST-NO/ SPST-NC	1	NO		ON
			2	---	---	---
			3	NC	ON	
2	101	DPST-NO	1	NO		ON
			2	---	---	---
			3	NO		ON
2	202	DPST-NC	1	NC	ON	
			2	---	---	---
			3	NC	ON	
3	111	3PST-NO	1	NO		ON
			2	NO		ON
			3	NO		ON
3	222	3PST-NC	1	NC	ON	
			2	NC	ON	
			3	NC	ON	
3	122	SPST-NO/ DPST-NC	1	NO		ON
			2	NC	ON	
			3	NC	ON	
3	112	DPST-NO/ SPST-NC	1	NO		ON
			2	NO		ON
			3	NC	ON	

Three Positions

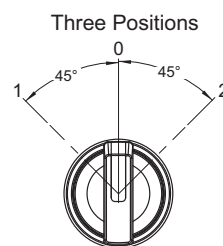
No. of outputs	Code	Contact configuration	Unit position	Contacts	Position		
					1	0	2
2	110	DPST-NO	1	NO	ON		
			2	NO	ON		ON
			3	---	---	---	---
2	011	DPST-NO	1	---	---	---	---
			2	NO	ON		ON
			3	NO			ON
2	101	DPST-NO	1	NO	ON		
			2	---	---	---	---
			3	NO			ON
2	220	DPST-NC	1	NC		ON	ON
			2	NC		ON	
			3	---	---	---	---
2	022	DPST-NC	1	---	---	---	---
			2	NC		ON	
			3	NC	ON	ON	

Operation Angle



A22NS/A22NW

Operation Angle



No. of outputs	Code	Contact configuration	Unit position	Contacts	Position		
					1	0	2
2	202	DPST-NC	1	NC		ON	ON
			2	---	---	---	---
			3	NC	ON	ON	
2	120	SPST-NO/ SPST-NC	1	NO	ON		
			2	NC		ON	
			3	---	---	---	---
2	102	SPST-NO/ SPST-NC	1	NO	ON		
			2	---	---	---	---
			3	NC	ON	ON	
2	210	SPST-NO/ SPST-NC	1	NC		ON	ON
			2	NO	ON		ON
			3	---	---	---	---
2	201	SPST-NO/ SPST-NC	1	NC		ON	ON
			2	---	---	---	---
			3	NO			ON
2	012	SPST-NO/ SPST-NC	1	---	---	---	---
			2	NO	ON		ON
			3	NC	ON	ON	
2	021	SPST-NO/ SPST-NC	1	---	---	---	---
			2	NC		ON	
			3	NO			ON
3	111	3PST-NO	1	NO	ON		
			2	NO	ON		ON
			3	NO			ON
3	222	3PST-NC	1	NC		ON	ON
			2	NC		ON	
			3	NC	ON	ON	
3	122	SPST-NO/ DPST-NC	1	NO	ON		
			2	NC		ON	
			3	NC	ON	ON	
3	212	SPST-NO/ DPST-NC	1	NC		ON	ON
			2	NO	ON		ON
			3	NC	ON	ON	
3	221	SPST-NO/ DPST-NC	1	NC		ON	ON
			2	NC		ON	
			3	NO			ON
3	211	DPST-NO/ SPST-NC	1	NC		ON	ON
			2	NO	ON		ON
			3	NO			ON
3	121	DPST-NO/ SPST-NC	1	NO	ON		
			2	NC		ON	
			3	NO			ON
3	112	DPST-NO/ SPST-NC	1	NO	ON		
			2	NO	ON		ON
			3	NC	ON	ON	

Ordering Information

Model Numbers for Sets --- Shipped as a set that includes the Operation Unit, Mounting Collar, and Contact Block.

Non-lighted, Two-position, Selector Switches

Appearance	Bezel material	No. of outputs	Model	(3) Reset method	(4)(4) Operation Unit color	(7)(7)(7) Contact configuration
Plastic bezels 	2B	1	A22NS-2B(3)-(4)(4)A-G(7)(7)-NN	M: Manual L: Automatic reset on left	NR: Opaque red NG: Opaque green NY: Opaque yellow	100 002
			A22NS-2B(3)-(4)(4)A-P(7)(7)-NN			
		2	A22NS-2B(3)-(4)(4)A-G(7)(7)-NN			102 101 202
			A22NS-2B(3)-(4)(4)A-P(7)(7)-NN			
		3	A22NS-2B(3)-(4)(4)A-G(7)(7)-NN			111 222 122 112
			A22NS-2B(3)-(4)(4)A-P(7)(7)-NN			
Brushed metal bezels 	2M	1	A22NS-2M(3)-(4)(4)A-G(7)(7)-NN			100 002
			A22NS-2M(3)-(4)(4)A-P(7)(7)-NN			
		2	A22NS-2M(3)-(4)(4)A-G(7)(7)-NN			102 101 202
			A22NS-2M(3)-(4)(4)A-P(7)(7)-NN			
		3	A22NS-2M(3)-(4)(4)A-G(7)(7)-NN			111 222 122 112
			A22NS-2M(3)-(4)(4)A-P(7)(7)-NN			

Non-lighted, Three-position, Selector Switches

Appearance	Bezel material	No. of outputs	Model	(3) Reset method	(4)(4) Operation Unit color	(7)(7)(7) Contact configuration
Plastic bezels 	3B	2	A22NS-3B(3)-(4)(4)A-G(7)(7)-NN	M: Manual L: Automatic reset on left R: Automatic reset on right B: Automatic reset on left and right	NR: Opaque red NG: Opaque green NY: Opaque yellow	110 011 101 220 022 202 120 102 210 201 012 021
			A22NS-3B(3)-(4)(4)A-P(7)(7)-NN			
			A22NS-3B(3)-(4)(4)A-G(7)(7)-NN			
			A22NS-3B(3)-(4)(4)A-P(7)(7)-NN			
		3	A22NS-3B(3)-(4)(4)A-G(7)(7)-NN			111 222 122 212 221 211 121 112
			A22NS-3B(3)-(4)(4)A-P(7)(7)-NN			
Brushed metal bezels 	3M	2	A22NS-3M(3)-(4)(4)A-G(7)(7)-NN			110 011 101 220 022 202 120 102 210 201 012 021
			A22NS-3M(3)-(4)(4)A-P(7)(7)-NN			
			A22NS-3M(3)-(4)(4)A-G(7)(7)-NN			
			A22NS-3M(3)-(4)(4)A-P(7)(7)-NN			
		3	A22NS-3M(3)-(4)(4)A-G(7)(7)-NN			111 222 122 212 221 211 121 112
			A22NS-3M(3)-(4)(4)A-P(7)(7)-NN			

Pushbutton Switches
A22NSelector Switches
A22NKey-type Selector Switches
A22NIndicators
M22NPushbutton Switches
A30NSelector Switches
A30NKey-type Selector Switches
A30NSubassemblies
(Common)Accessories
and ToolsSafety
Precautions

A22NS/A22NW

Ordering Information

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

Lighted, Two-position, Selector Switches

Appearance	Bezel material	No. of outputs	Model	(3) Reset method	(4)(4) Operation Unit color	(7)(7)(7) Contact Configuration	(8) LED Lamp color	(9) LED Lamp voltage
Plastic bezels 	2B	1	A22NW-2B(3)-(4)(4)A-G(7)(7)(7)-(8)(9)	M: Manual L: Automatic reset on left	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 A: Blue O: Orange W: White	A: 6 VAC/DC B: 12 VAC/DC C: 24 VAC/DC D: 100/110/120 VAC E: 200/220/230/240 VAC
			A22NW-2B(3)-(4)(4)A-P(7)(7)(7)-(8)(9)					
		2	A22NW-2B(3)-(4)(4)A-G(7)(7)(7)-(8)(9)			102 101 202		
			A22NW-2B(3)-(4)(4)A-P(7)(7)(7)-(8)(9)					
Brushed metal bezels 	2M	1	A22NW-2M(3)-(4)(4)A-G(7)(7)(7)-(8)(9)			100 002		
			A22NW-2M(3)-(4)(4)A-P(7)(7)(7)-(8)(9)					
		2	A22NW-2M(3)-(4)(4)A-G(7)(7)(7)-(8)(9)			102 101 202		
			A22NW-2M(3)-(4)(4)A-P(7)(7)(7)-(8)(9)					

Lighted, Three-position, Selector Switches

Appearance	Bezel material	No. of outputs	Model	(3) Reset method	(4)(4) Operation Unit color	(7)(7)(7) Contact Configuration	(8) LED Lamp color	(9) LED Lamp voltage		
Plastic bezels 	3B	2	A22NW-3B(3)-(4)(4)A-G(7)(7)(7)-(8)(9)	M: Manual L: Automatic reset on left R: Automatic reset on right B: Automatic reset on left and right	TR: Transparent red TG: Transparent green TY: Transparent yellow TW: Transparent white TA: Transparent blue TO: Transparent orange	101 202 102 201	R: Red G: Green Y: Yellow A: Blue O: Orange W: White	A: 6 VAC/DC B: 12 VAC/DC C: 24 VAC/DC D: 100/110/120 VAC E: 200/220/230/240 VAC		
			A22NW-3B(3)-(4)(4)A-P(7)(7)(7)-(8)(9)							
Brushed metal bezels 	3M	2	A22NW-3M(3)-(4)(4)A-G(7)(7)(7)-(8)(9)			101 202 102 201				
			A22NW-3M(3)-(4)(4)A-P(7)(7)(7)-(8)(9)							

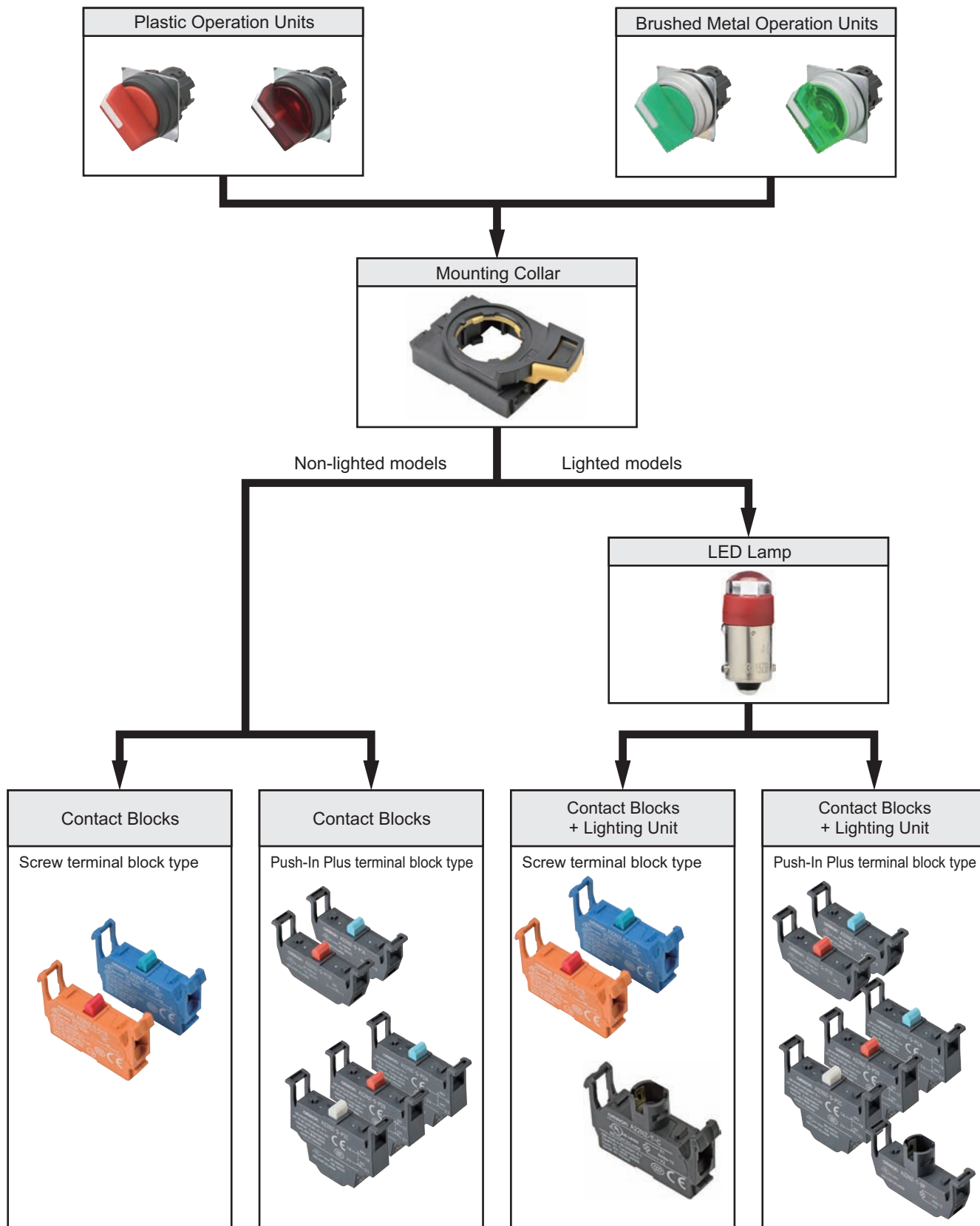
Note: Normally, the Operation Unit and LED Lamp with the same color are combined.
However, opaque white is available by combining a white Operation Unit and yellow LED. A22N□-□□□-TWA-□□□□-Y□

- Subassemblies: Refer to pages 25 to 27 and 78.
 (You can order Operation Units, LED Lamps, Mounting Collars, and Contact Blocks individually.)
- Specifications: Refer to page 12 ■ Characteristics: Refer to page 29.
 ■ Dimensions: Refer to page 30.
 ■ 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.



- Model numbers of sets: Refer to pages 23 to 24.
- Specifications: Refer to page 12.
- Characteristics: Refer to page 29.

- Dimensions: Refer to page 30.
- Subassemblies (Common): Refer to page 78.
- 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

A22NS/A22NW

Ordering Information

Subassemblies - - - - You can order Operation Units, Mounting Collars, and Contact Blocks individually. Use them in combination for models that are not available as assembled Switches. They can also be used as inventory for maintenance parts.

Operation Unit Non-lighted Switches

Bezel material and shape			Plastic  	Brushed metal  
No. of positions	Reset method	Operation Unit color	Model	Model
2	Manual	Opaque red	A22NZ-2BM-NRA	A22NZ-2MM-NRA
	Automatic reset on left		A22NZ-2BL-NRA	A22NZ-2ML-NRA
3	Manual		A22NZ-3BM-NRA	A22NZ-3MM-NRA
	Automatic reset on left		A22NZ-3BL-NRA	A22NZ-3ML-NRA
	Automatic reset on right		A22NZ-3BR-NRA	A22NZ-3MR-NRA
	Automatic reset on left and right		A22NZ-3BB-NRA	A22NZ-3MB-NRA
2	Manual	Opaque green	A22NZ-2BM-NGA	A22NZ-2MM-NGA
	Automatic reset on left		A22NZ-2BL-NGA	A22NZ-2ML-NGA
3	Manual		A22NZ-3BM-NGA	A22NZ-3MM-NGA
	Automatic reset on left		A22NZ-3BL-NGA	A22NZ-3ML-NGA
	Automatic reset on right		A22NZ-3BR-NGA	A22NZ-3MR-NGA
	Automatic reset on left and right		A22NZ-3BB-NGA	A22NZ-3MB-NGA
2	Manual	Opaque black	A22NZ-2BM-NBA	A22NZ-2MM-NBA
	Automatic reset on left		A22NZ-2BL-NBA	A22NZ-2ML-NBA
3	Manual		A22NZ-3BM-NBA	A22NZ-3MM-NBA
	Automatic reset on left		A22NZ-3BL-NBA	A22NZ-3ML-NBA
	Automatic reset on right		A22NZ-3BR-NBA	A22NZ-3MR-NBA
	Automatic reset on left and right		A22NZ-3BB-NBA	A22NZ-3MB-NBA

■ Model numbers of sets: Refer to pages 23 to 24.
 ■ Specifications: Refer to page 12.
 ■ Characteristics: Refer to page 29.

■ Dimensions: Refer to page 30.
 ■ Subassemblies (Common): Refer to page 78.
 ■ Accessories and tools: Refer to pages 80 to 81.

Ordering Information

Subassemblies

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

Lighted Switches

Bezel material and shape			Plastic 	Brushed metal 
No. of positions	Reset method	Operation Unit color	Model	Model
2	Manual	Transparent red	A22NZ-2BM-TRA	A22NZ-2MM-TRA
	Automatic reset on left		A22NZ-2BL-TRA	A22NZ-2ML-TRA
3	Manual		A22NZ-3BM-TRA	A22NZ-3MM-TRA
	Automatic reset on left		A22NZ-3BL-TRA	A22NZ-3ML-TRA
	Automatic reset on right		A22NZ-3BR-TRA	A22NZ-3MR-TRA
	Automatic reset on left and right		A22NZ-3BB-TRA	A22NZ-3MB-TRA
2	Manual	Transparent green	A22NZ-2BM-TGA	A22NZ-2MM-TGA
	Automatic reset on left		A22NZ-2BL-TGA	A22NZ-2ML-TGA
3	Manual		A22NZ-3BM-TGA	A22NZ-3MM-TGA
	Automatic reset on left		A22NZ-3BL-TGA	A22NZ-3ML-TGA
	Automatic reset on right		A22NZ-3BR-TGA	A22NZ-3MR-TGA
	Automatic reset on left and right		A22NZ-3BB-TGA	A22NZ-3MB-TGA
2	Manual	Transparent yellow	A22NZ-2BM-TYA	A22NZ-2MM-TYA
	Automatic reset on left		A22NZ-2BL-TYA	A22NZ-2ML-TYA
3	Manual		A22NZ-3BM-TYA	A22NZ-3MM-TYA
	Automatic reset on left		A22NZ-3BL-TYA	A22NZ-3ML-TYA
	Automatic reset on right		A22NZ-3BR-TYA	A22NZ-3MR-TYA
	Automatic reset on left and right		A22NZ-3BB-TYA	A22NZ-3MB-TYA
2	Manual	Transparent white	A22NZ-2BM-TWA	A22NZ-2MM-TWA
	Automatic reset on left		A22NZ-2BL-TWA	A22NZ-2ML-TWA
3	Manual		A22NZ-3BM-TWA	A22NZ-3MM-TWA
	Automatic reset on left		A22NZ-3BL-TWA	A22NZ-3ML-TWA
	Automatic reset on right		A22NZ-3BR-TWA	A22NZ-3MR-TWA
	Automatic reset on left and right		A22NZ-3BB-TWA	A22NZ-3MB-TWA
2	Manual	Transparent blue	A22NZ-2BM-TAA	A22NZ-2MM-TAA
	Automatic reset on left		A22NZ-2BL-TAA	A22NZ-2ML-TAA
3	Manual		A22NZ-3BM-TAA	A22NZ-3MM-TAA
	Automatic reset on left		A22NZ-3BL-TAA	A22NZ-3ML-TAA
	Automatic reset on right		A22NZ-3BR-TAA	A22NZ-3MR-TAA
	Automatic reset on left and right		A22NZ-3BB-TAA	A22NZ-3MB-TAA
2	Manual	Transparent orange	A22NZ-2BM-TOA	A22NZ-2MM-TOA
	Automatic reset on left		A22NZ-2BL-TOA	A22NZ-2ML-TOA
3	Manual		A22NZ-3BM-TOA	A22NZ-3MM-TOA
	Automatic reset on left		A22NZ-3BL-TOA	A22NZ-3ML-TOA
	Automatic reset on right		A22NZ-3BR-TOA	A22NZ-3MR-TOA
	Automatic reset on left and right		A22NZ-3BB-TOA	A22NZ-3MB-TOA

■ Model numbers of sets: Refer to pages 23 to 24.
 ■ Specifications: Refer to page 12.
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■ Dimensions: Refer to page 30.
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 ■ Accessories and tools: Refer to pages 80 to 81.

A22NS/A22NW

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)

Rated insulation voltage		600 V				
Rated carry current		10 A				
Rated voltage		24 V	120 V	240 V	380 V	440 V
AC at 50/60 Hz	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
DC	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	

Specifications

Characteristics

Item		Type	Selector Switches	
			Non-lighted models	Lighted models
Allowable operating frequency	Mechanical		30 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 ² max. (malfunction within 1 ms)	
Durability	Mechanical		500,000 operations min. (Switches with 3 positions: 300,000 operations min.)	
	Electrical		500,000 operations min. (Switches with 3 positions: 300,000 operations min.) (250 VAC, 3 A, with an inductive load having power factor cos θ = 0.4)	
Ambient operating temperature ^{*1}			–25 to 70°C	–25 to 55°C
Ambient operating humidity			35% to 85% RH	
Ambient storage temperature ^{*1}			–40 to 80°C	
Degree of protection ^{*2}			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. 60 g (for 1NC/1NO)

*1. With no icing or condensation.

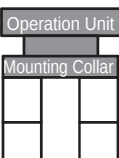
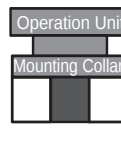
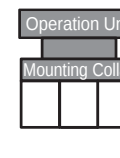
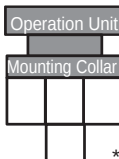
*2. Degree of protection from the front of the panel.

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

Item	Type	Selector Switches	
		Manual reset	Automatic reset
Total travel force (torque) (maximum TTF)		0.6 N·m	0.6 N·m
Total travel (TT)		2 positions: Approx. 90°, 3 positions: Approx. 45°	
Resetting force (torque) (RF)		0.5 N·m max.	---

Examples of Linked Contact Blocks (Screw terminal block type)

 Contact Blocks  Lighting Units

	Selector Switches			
	2 positions		3 positions	
	Lighted	Non-lighted	Lighted	Non-lighted
Linking example				
				

* If you use three Contact Blocks in stage 1, you can add one more Contact Block in the middle of stage 2.

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.

A22NS/A22NW

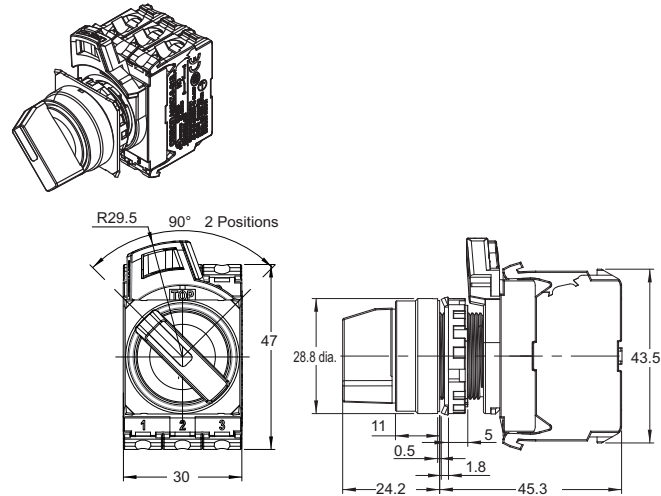
Dimensions

(Unit: mm)

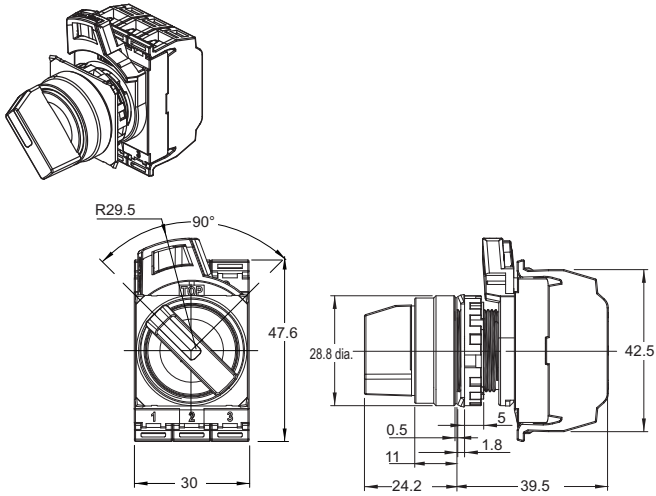
Lighted and Non-lighted Selection Switches

Two-position Switches with Plastic Bezels

A22N□-2B□-□□A-G

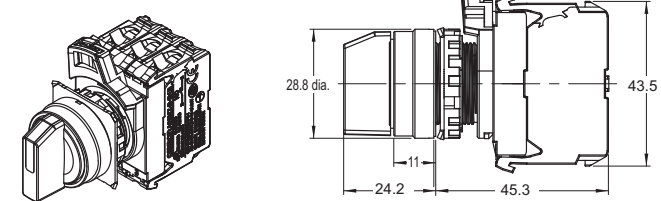


A22N□-2B□-□□A-P

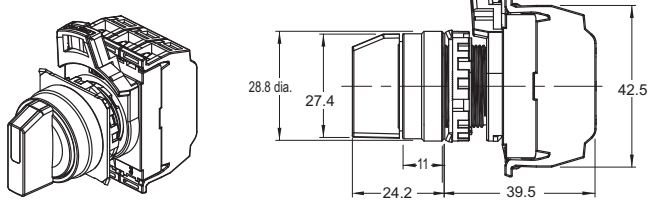


Three-position Switches with Plastic Bezels

A22N□-3B□-□□A-G

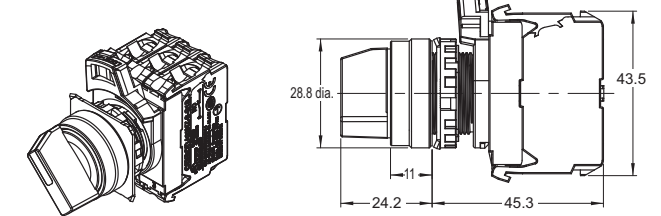


A22N□-3B□-□□A-P

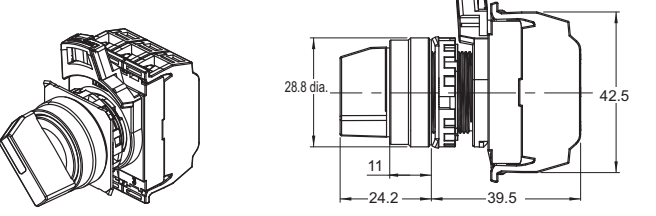


Two-position Switches with Brushed Metal Bezels

A22N□-2M□-□□A-G

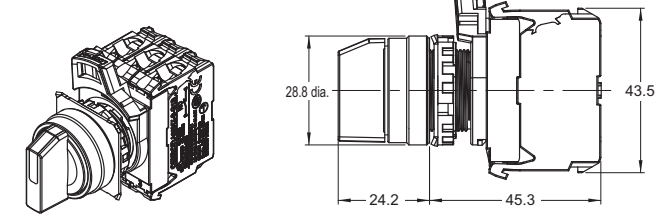


A22N□-2M□-□□A-P

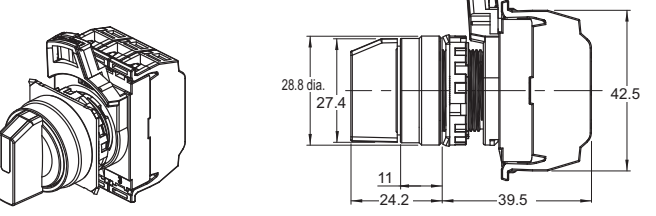


Three-position Switches with Brushed Metal Bezels

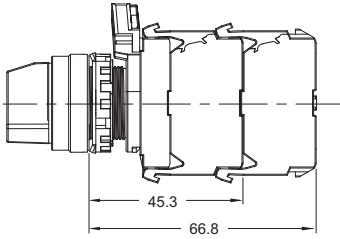
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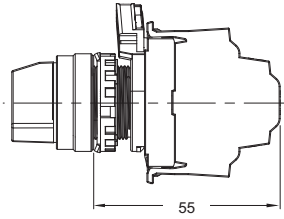
A22N□-3M□-□□A-P



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)

Non-lighted Switches (2NO/1NC) Contact configuration code:112	Lighted Switches (1NO/1NC) Contact configuration code:102

Terminal Connection Diagrams

Non-lighted Switches (2NO/1NC) Contact configuration code:112	Lighted Switches (1NO/1NC) Contact configuration code:102
Bottom View	Bottom View

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

BOTTOM VIEW (Push-In Plus terminal block type)

Non-lighted Switches (2NO/1NC) Contact configuration code:112	Lighted Switches (1NO/1NC) Contact configuration code:102	Double-contact unit Non-lighted (2NO/2NO/2NC)