

Pushbutton Switches
A22N

Selector Switches
A22N

Key-type Selector Switches
A22N

Indicators
M22N

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Subassemblies
(Common)

Accessories
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Safety
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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.
- Standard-feature degree of protection: IP66, NEMA 4X, and NEMA 13.





Refer to *Safety Precautions for All Pushbutton Switches/Indicators and Safety Precautions* on page 88.

Operation Unit Colors

		Red	Green	Yellow	White	Blue	Black		
Non-lighted Switches	A22NS-□□□-N□ Opaque								
		Red	Green	Yellow	White	Blue	Orange	White	
Lighted Switches	A22NW-□□□-T□ Transparent	When not lit							
		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 Two Positions	Three Positions	Lighted Two Positions	Three Positions
			
Screw Terminal Blocks/Push-In Plus Terminal Blocks			
Brushed Metal bezels			
A22NS-□M		A22NW-□M	
Non-lighted Two Positions	Three Positions	Lighted Two Positions	Three Positions
			
Screw Terminal Blocks/Push-In Plus Terminal Blocks			
Metal bezels			
A22NS-□R		A22NW-□R	
Non-lighted Two Positions	Three Positions	Lighted Two Positions	Three Positions
			

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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 25 to 27.

Model Numbers for Sets

A 2 2 N ⁽¹⁾ W - ⁽²⁾ 2 ⁽³⁾ B ⁽⁴⁾ M - ⁽⁵⁾ N ⁽⁶⁾ R ⁽⁷⁾ A - ⁽⁸⁾ G ⁽⁹⁾ 1 0 1 - ⁽⁸⁾ R ⁽⁹⁾ A

(1) Type

Code	Type
S	Non-lighted
W	Lighted

(5) Degree of Protection

Code	Protection
A	Conforming to IP66, NEMA 4X, NEMA13

(6) Contacts and Terminals Specifications

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

(2) Number of Positions and Bezel Material

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

(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
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						

(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	
	NY			Yellow	
	NW			White	
	NA			Blue	
	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

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

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

■ Specifications: Refer to page 13
■ Dimensions: Refer to page 33.

■ Characteristics: Refer to page 32.
■ Precautions for correct use: Refer to pages 88 to 99.

Structure

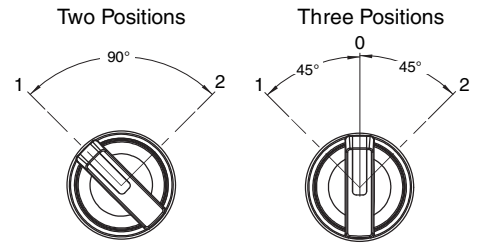
Contact Configuration Table
Two Positions

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



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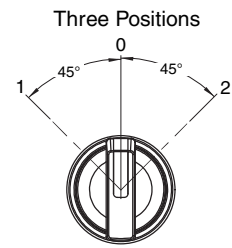
Subassemblies (Common)

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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	

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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 NW: Opaque white NA: Opaque blue NB: Opaque black	100 002
			A22NS-2B(3)-(4)(4)A-P(7)(7)-NN			
		2	A22NS-2B(3)-(4)(4)A-G(7)(7)-NN			
			A22NS-2B(3)-(4)(4)A-P(7)(7)-NN			
		3	A22NS-2B(3)-(4)(4)A-G(7)(7)-NN			
			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			
			A22NS-2M(3)-(4)(4)A-P(7)(7)-NN			
		2	A22NS-2M(3)-(4)(4)A-G(7)(7)-NN			
			A22NS-2M(3)-(4)(4)A-P(7)(7)-NN			
		3	A22NS-2M(3)-(4)(4)A-G(7)(7)-NN			
			A22NS-2M(3)-(4)(4)A-P(7)(7)-NN			
Metal bezels 	2R	1	A22NS-2R(3)-(4)(4)A-G(7)(7)-NN			
			A22NS-2R(3)-(4)(4)A-P(7)(7)-NN			
		2	A22NS-2R(3)-(4)(4)A-G(7)(7)-NN			
			A22NS-2R(3)-(4)(4)A-P(7)(7)-NN			
		3	A22NS-2R(3)-(4)(4)A-G(7)(7)-NN			
			A22NS-2R(3)-(4)(4)A-P(7)(7)-NN			

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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 NW: Opaque white NA: Opaque blue NB: Opaque black	110
			011			
		3	A22NS-3B(3)-(4)(4)A-P(7)(7)-NN			220
			022			
		3	A22NS-3B(3)-(4)(4)A-G(7)(7)-NN			202
			A22NS-3B(3)-(4)(4)A-P(7)(7)-NN			120
Brushed metal bezels 	3M	2	A22NS-3M(3)-(4)(4)A-G(7)(7)-NN	102		
			210			
		3	A22NS-3M(3)-(4)(4)A-P(7)(7)-NN	201		
			012			
		3	A22NS-3M(3)-(4)(4)A-G(7)(7)-NN	211		
			A22NS-3M(3)-(4)(4)A-P(7)(7)-NN	121		
Metal bezels 	3R	2	A22NS-3R(3)-(4)(4)A-G(7)(7)-NN	112		
			011			
		3	A22NS-3R(3)-(4)(4)A-P(7)(7)-NN	222		
			122			
		3	A22NS-3R(3)-(4)(4)A-G(7)(7)-NN	212		
			A22NS-3R(3)-(4)(4)A-P(7)(7)-NN	221		

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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
	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)					
	2M	1	A22NW-2M(3)-(4)(4)A-G(7)(7)(7)-(8)(9)					
			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)					
	2R	1	A22NW-2R(3)-(4)(4)A-G(7)(7)(7)-(8)(9)					
			A22NW-2R(3)-(4)(4)A-P(7)(7)(7)-(8)(9)					
		2	A22NW-2R(3)-(4)(4)A-G(7)(7)(7)-(8)(9)	102 101 202				
			A22NW-2R(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
	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)					
	3M	2	A22NW-3M(3)-(4)(4)A-G(7)(7)(7)-(8)(9)					
			A22NW-3M(3)-(4)(4)A-P(7)(7)(7)-(8)(9)					
	3R	2	A22NW-3R(3)-(4)(4)A-G(7)(7)(7)-(8)(9)					
			A22NW-3R(3)-(4)(4)A-P(7)(7)(7)-(8)(9)			101 202 102 201		

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□

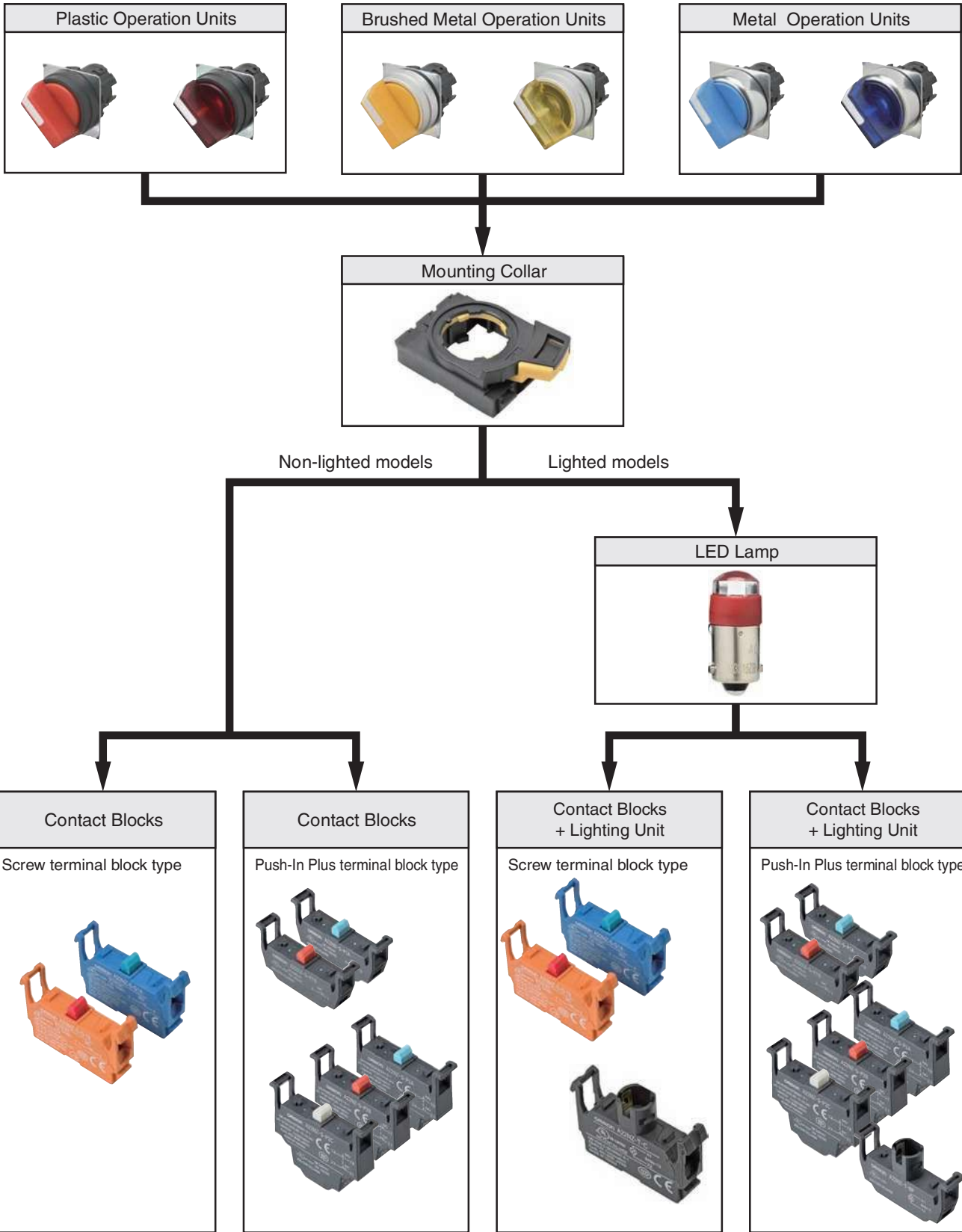
■ Subassemblies: Refer to pages 28 to 30 and 82.
(You can order Operation Units, LED Lamps, Mounting Collars, and Contact Blocks individually.)

■ Specifications: Refer to page 13 ■ Characteristics: Refer to page 32.
■ Dimensions: Refer to page 33.
■ Accessories and tools: Refer to pages 84 to 85.

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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 25 to 27.
- Specifications: Refer to page 13.
- Characteristics: Refer to page 32.

























- Dimensions: Refer to page 33.
- Subassemblies (Common): Refer to page 82.
- Accessories and tools: Refer to pages 84 to 85.

Pushbutton Switches A22N
 Selector Switches A22N
 Key-type Selector Switches A22N
 Indicators M22N
 Pushbutton Switches A30N
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 Subassemblies (Common)
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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

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

- Model numbers of sets: Refer to pages 25 to 27.
- Specifications: Refer to page 13.
- Characteristics: Refer to page 32.

- Dimensions: Refer to page 33.
- Subassemblies (Common): Refer to page 82.
- Accessories and tools: Refer to pages 84 to 85.

Pushbutton Switches
A22N
 Selector Switches
A22N
 Key-Type Selector Switches
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 Indicators
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A30N
 Key-Type Selector Switches
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 Subassemblies (Common)
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 Safety Precautions
A30N

A22NS/A22NW

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	Metal	
No. of positions	Reset method	Operation Unit color	Model	Model	Model	
2	Manual	Transparent red	A22NZ-2BM-TRA	A22NZ-2MM-TRA	A22NZ-2RM-TRA	
	Automatic reset on left		A22NZ-2BL-TRA	A22NZ-2ML-TRA	A22NZ-2RL-TRA	
3	Manual		A22NZ-3BM-TRA	A22NZ-3MM-TRA	A22NZ-3RM-TRA	
	Automatic reset on left		A22NZ-3BL-TRA	A22NZ-3ML-TRA	A22NZ-3RL-TRA	
	Automatic reset on right		A22NZ-3BR-TRA	A22NZ-3MR-TRA	A22NZ-3RR-TRA	
	Automatic reset on left and right		A22NZ-3BB-TRA	A22NZ-3MB-TRA	A22NZ-3RB-TRA	
2	Manual		Transparent green	A22NZ-2BM-TGA	A22NZ-2MM-TGA	A22NZ-2RM-TGA
	Automatic reset on left			A22NZ-2BL-TGA	A22NZ-2ML-TGA	A22NZ-2RL-TGA
3	Manual	A22NZ-3BM-TGA		A22NZ-3MM-TGA	A22NZ-3RM-TGA	
	Automatic reset on left	A22NZ-3BL-TGA		A22NZ-3ML-TGA	A22NZ-3RL-TGA	
	Automatic reset on right	A22NZ-3BR-TGA		A22NZ-3MR-TGA	A22NZ-3RR-TGA	
	Automatic reset on left and right	A22NZ-3BB-TGA		A22NZ-3MB-TGA	A22NZ-3RB-TGA	
2	Manual	Transparent yellow		A22NZ-2BM-TYA	A22NZ-2MM-TYA	A22NZ-2RM-TYA
	Automatic reset on left			A22NZ-2BL-TYA	A22NZ-2ML-TYA	A22NZ-2RL-TYA
3	Manual		A22NZ-3BM-TYA	A22NZ-3MM-TYA	A22NZ-3RM-TYA	
	Automatic reset on left		A22NZ-3BL-TYA	A22NZ-3ML-TYA	A22NZ-3RL-TYA	
	Automatic reset on right		A22NZ-3BR-TYA	A22NZ-3MR-TYA	A22NZ-3RR-TYA	
	Automatic reset on left and right		A22NZ-3BB-TYA	A22NZ-3MB-TYA	A22NZ-3RB-TYA	
2	Manual		Transparent white	A22NZ-2BM-TWA	A22NZ-2MM-TWA	A22NZ-2RM-TWA
	Automatic reset on left			A22NZ-2BL-TWA	A22NZ-2ML-TWA	A22NZ-2RL-TWA
3	Manual	A22NZ-3BM-TWA		A22NZ-3MM-TWA	A22NZ-3RM-TWA	
	Automatic reset on left	A22NZ-3BL-TWA		A22NZ-3ML-TWA	A22NZ-3RL-TWA	
	Automatic reset on right	A22NZ-3BR-TWA		A22NZ-3MR-TWA	A22NZ-3RR-TWA	
	Automatic reset on left and right	A22NZ-3BB-TWA		A22NZ-3MB-TWA	A22NZ-3RB-TWA	
2	Manual	Transparent blue		A22NZ-2BM-TAA	A22NZ-2MM-TAA	A22NZ-2RM-TAA
	Automatic reset on left			A22NZ-2BL-TAA	A22NZ-2ML-TAA	A22NZ-2RL-TAA
3	Manual		A22NZ-3BM-TAA	A22NZ-3MM-TAA	A22NZ-3RM-TAA	
	Automatic reset on left		A22NZ-3BL-TAA	A22NZ-3ML-TAA	A22NZ-3RL-TAA	
	Automatic reset on right		A22NZ-3BR-TAA	A22NZ-3MR-TAA	A22NZ-3RR-TAA	
	Automatic reset on left and right		A22NZ-3BB-TAA	A22NZ-3MB-TAA	A22NZ-3RB-TAA	
2	Manual		Transparent orange	A22NZ-2BM-TOA	A22NZ-2MM-TOA	A22NZ-2RM-TOA
	Automatic reset on left			A22NZ-2BL-TOA	A22NZ-2ML-TOA	A22NZ-2RL-TOA
3	Manual	A22NZ-3BM-TOA		A22NZ-3MM-TOA	A22NZ-3RM-TOA	
	Automatic reset on left	A22NZ-3BL-TOA		A22NZ-3ML-TOA	A22NZ-3RL-TOA	
	Automatic reset on right	A22NZ-3BR-TOA		A22NZ-3MR-TOA	A22NZ-3RR-TOA	
	Automatic reset on left and right	A22NZ-3BB-TOA		A22NZ-3MB-TOA	A22NZ-3RB-TOA	

■ Model numbers of sets: Refer to pages 25 to 27.
 ■ Specifications: Refer to page 13.
 ■ Characteristics: Refer to page 32.

■ Dimensions: Refer to page 33.
 ■ Subassemblies (Common): Refer to page 82.
 ■ Accessories and tools: Refer to pages 84 to 85.

Specifications

Certified Safety Standard Ratings

UL 508 (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 (GB14048.5)

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	Approx. 12 mA (red, orange, yellow, or blue) Approx. 5 mA (white or green)
200 VAC	200 VAC ±10%	
220 VAC	220 VAC ±10%	
230 VAC	230 VAC ±10%	
240 VAC	220 to 250 VAC	

A22NS/A22NW

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}		Conforming to IP66, NEMA 4X, NEMA 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.

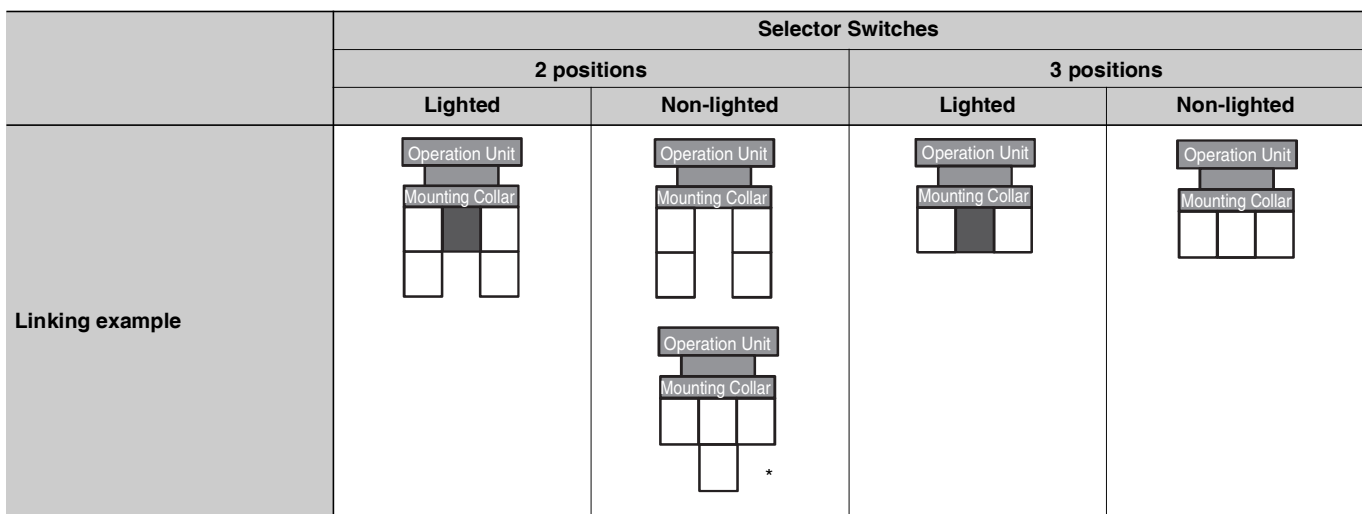
Operating Characteristics (for SPST-NO/SPST-NC)

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



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

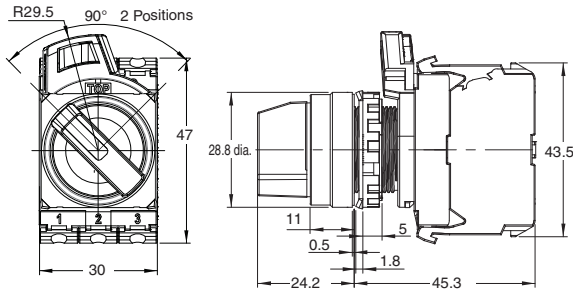
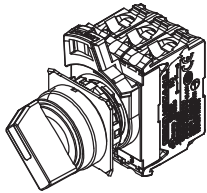
Note: If you increase the number of Contact Blocks, evaluate the Switch under actual working conditions before permanent installation and use the Switch within a number of switching operations that will not adversely affect the Switch's performance.

Dimensions

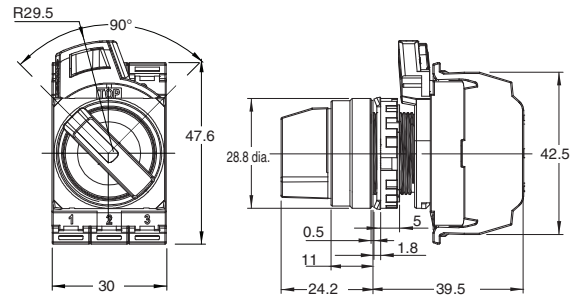
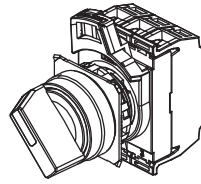
(Unit: mm)

Lighted and Non-lighted Selection Switches

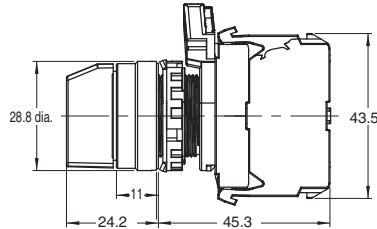
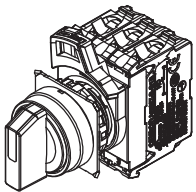
Two-position Switches with Plastic Bezels
A22N□-2B□-□□A-G



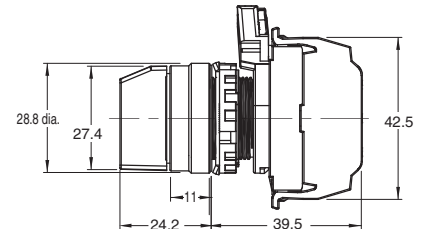
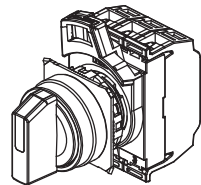
A22N□-2B□-□□A-P



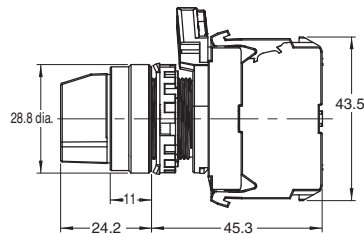
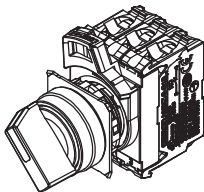
Three-position Switches with Plastic Bezels
A22N□-3B□-□□A-G



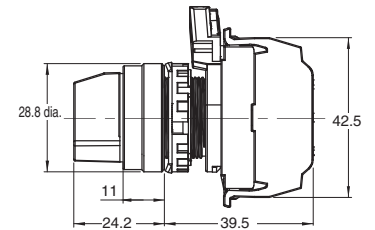
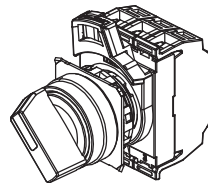
A22N□-3B□-□□A-P



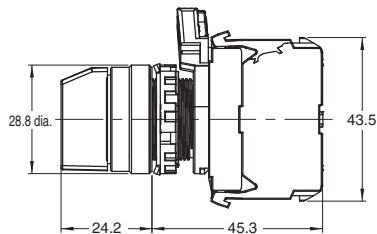
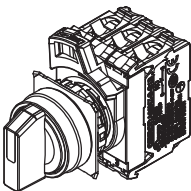
Two-position Switches with Brushed Metal Bezels
A22N□-2M□-□□A-G



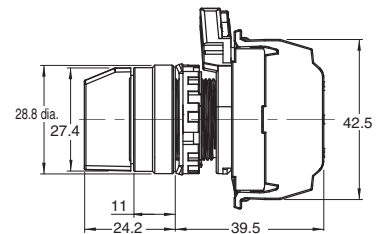
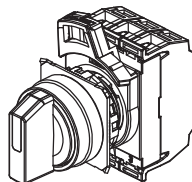
A22N□-2M□-□□A-P



Three-position Switches with Brushed Metal Bezels
A22N□-3M□-□□A-G



A22N□-3M□-□□A-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
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Safety
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A22NS/A22NW

Pushbutton Switches
A22N

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A22N

Key-type Selector Switches
A22N

Indicators
M22N

Pushbutton Switches
A30N

Selector Switches
A30N

Key-type Selector Switches
A30N

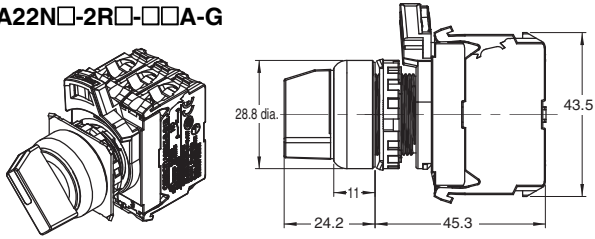
Subassemblies
(Common)

Accessories
and Tools

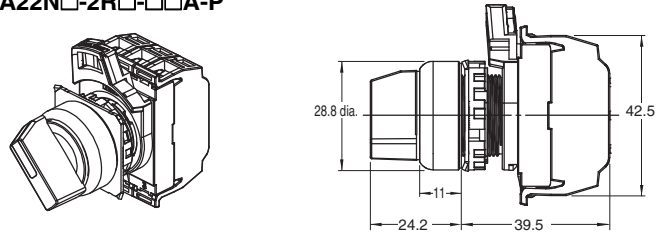
Safety
Precautions

Two-position Switches with Metal Bezels

A22N□-2R□-□□A-G

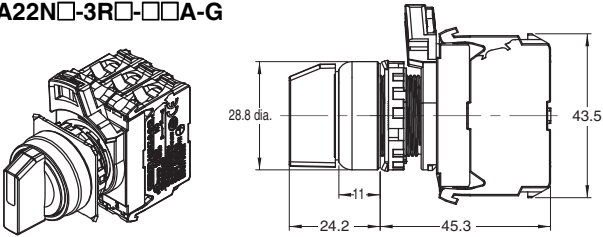


A22N□-2R□-□□A-P

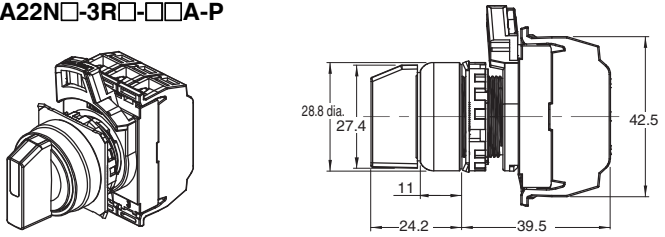


Three-position Switches with Metal Bezels

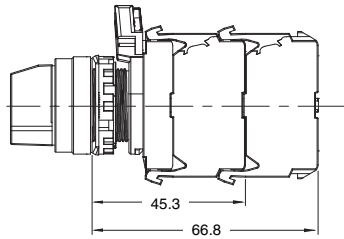
A22N□-3R□-□□A-G



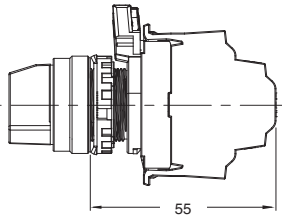
A22N□-3R□-□□A-P



Depth with Linked Units (Screw terminal block type)

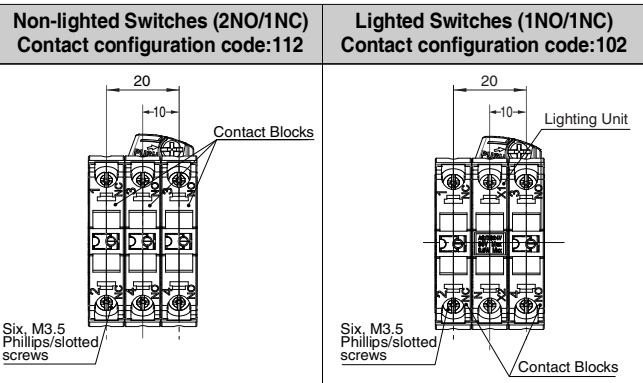


Depth when a double-contact unit is mounted (Push-In Plus terminal block type)

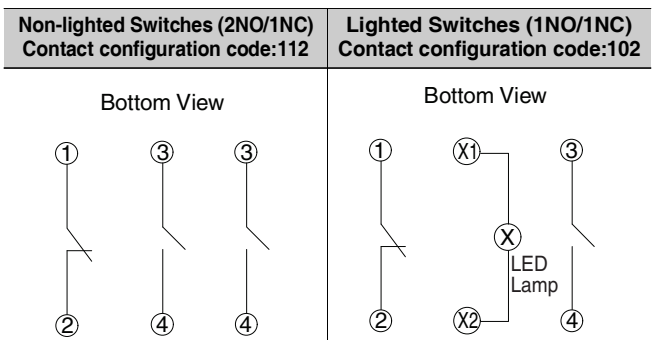


Terminal Arrangement

BOTTOM VIEW (Screw terminal block type)



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)

