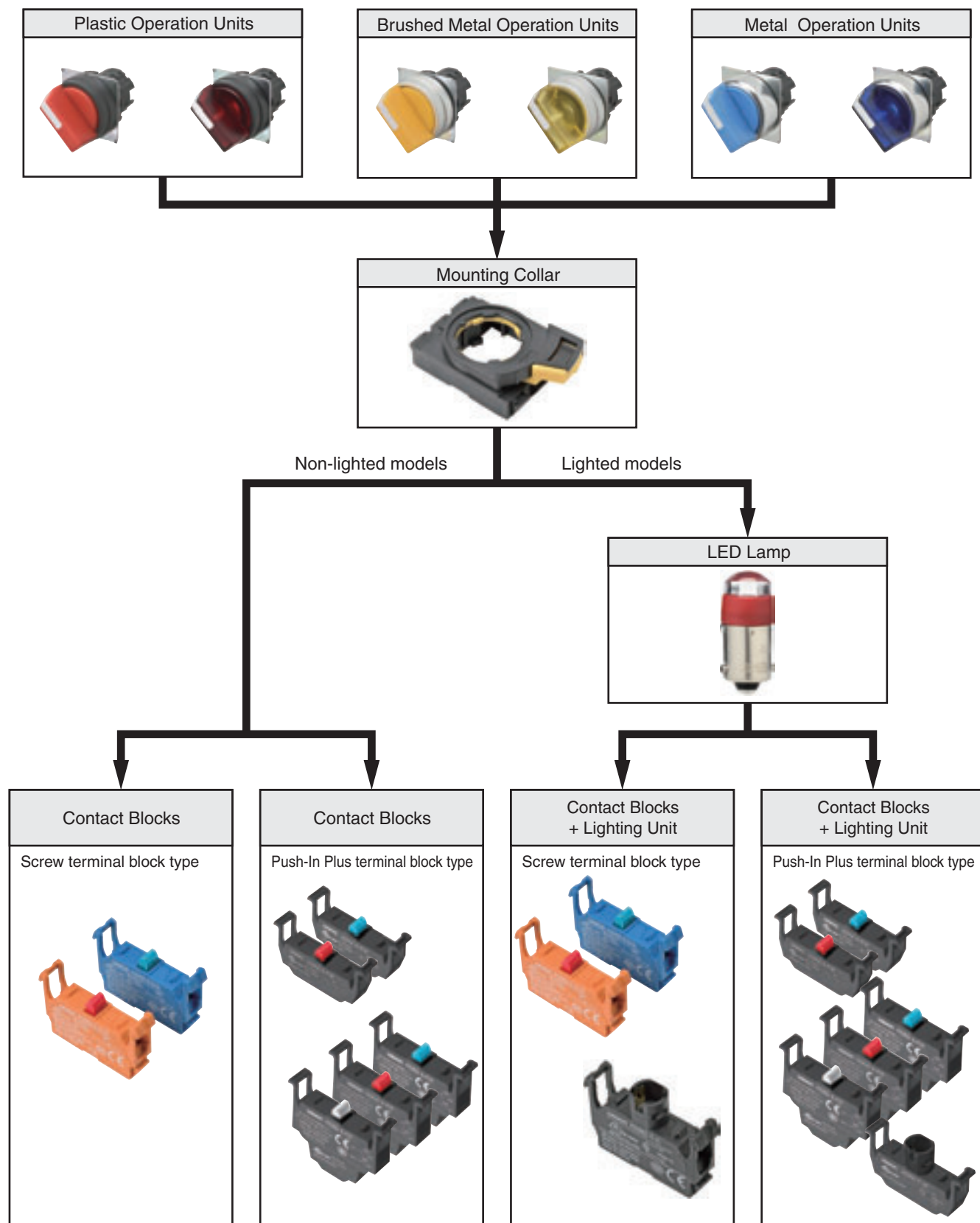


Ordering Information

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.

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	Metal
No. of positions	Reset method	Operation Unit color	Model	Model	Model
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.

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	2 A	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*1		2,500 VAC at 50/60 Hz for 1 min	Not available for lighting units
	Between each terminal and ground		2,500 VAC at 50/60 Hz for 1 min	
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*2			-25 to 70°C	-25 to 55°C
Ambient operating humidity			35% to 85% RH	
Ambient storage temperature*2			-40 to 80°C	
Degree of protection*3			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. Push-In Plus terminal block type: 1,000 VAC at 50/60 Hz for 1 min.
*2. With no icing or condensation.
*3. Degree of protection from the front of the panel.

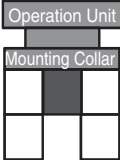
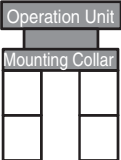
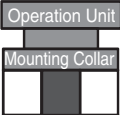
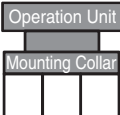
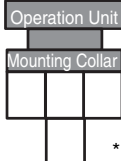
Operating Characteristics (for SPST-NO/SPST-NC)

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.

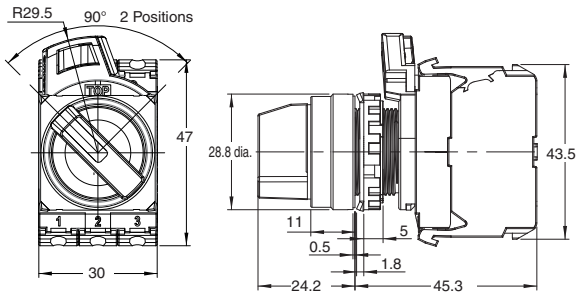
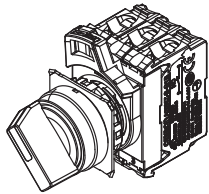
Dimensions

(Unit: mm)

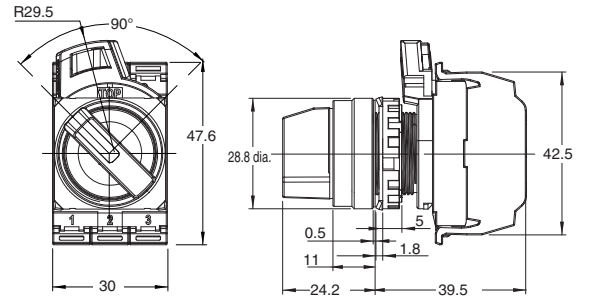
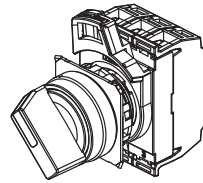
Lighted and Non-lighted Selection Switches

Two-position Switches with Plastic Bezels

A22N□-2B□-□□A-G

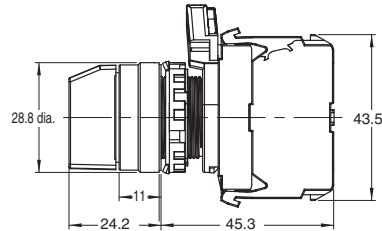
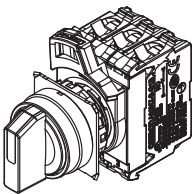


A22N□-2B□-□□A-P

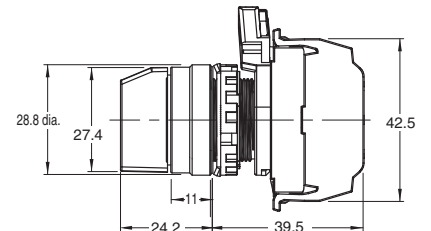
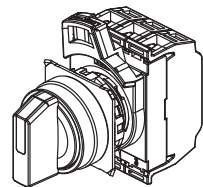


Three-position Switches with Plastic Bezels

A22N□-3B□-□□A-G

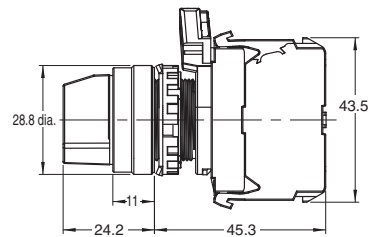
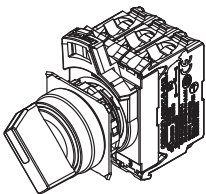


A22N□-3B□-□□A-P

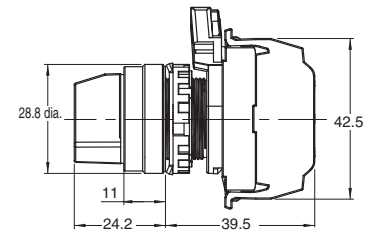
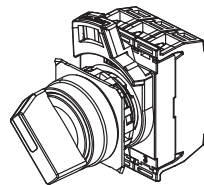


Two-position Switches with Brushed Metal Bezels

A22N□-2M□-□□A-G

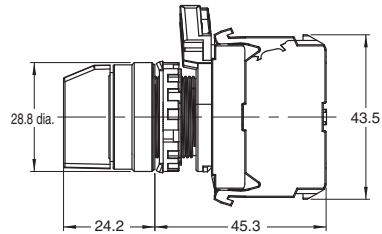
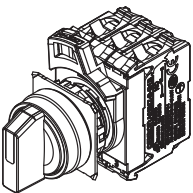


A22N□-2M□-□□A-P

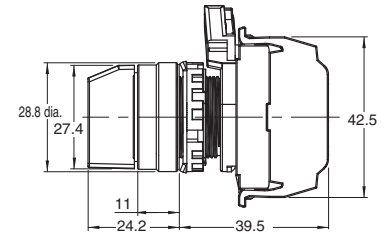
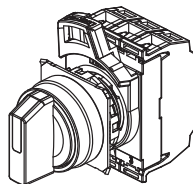


Three-position Switches with Brushed Metal Bezels

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
(Common)

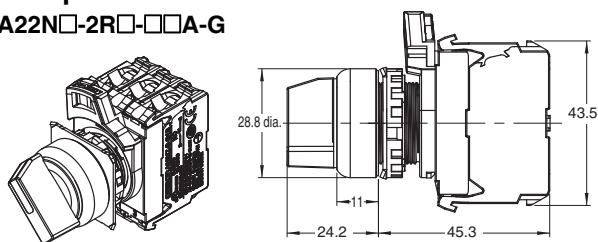
Accessories
and Tools

Safety
Precautions

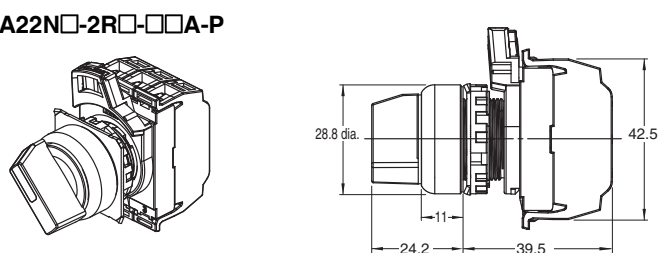
A22NS/A22NW

Two-position Switches with Metal Bezels

A22N□-2R□-□□A-G

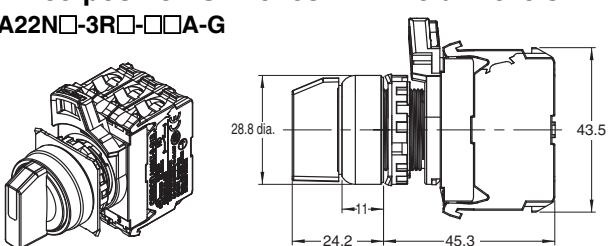


A22N□-2R□-□□A-P

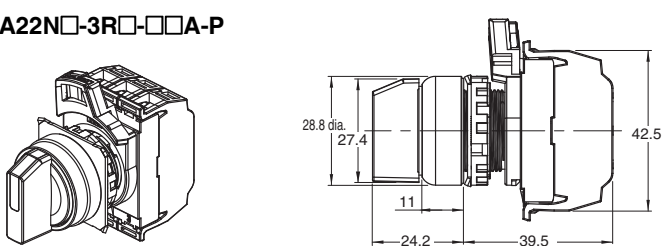


Three-position Switches with Metal Bezels

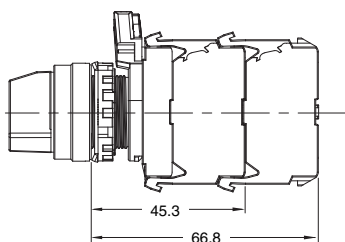
A22N□-3R□-□□A-G



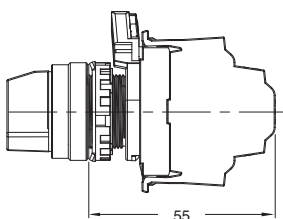
A22N□-3R□-□□A-P



Depth with Linked Units (Screw terminal block type)



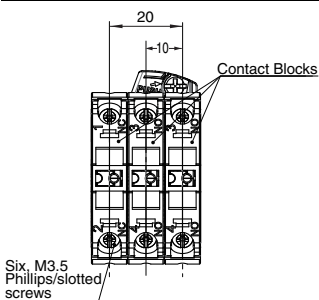
Depth when a double-contact unit is mounted (Push-In Plus terminal block type)



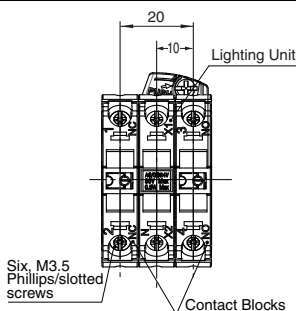
Terminal Arrangement

BOTTOM VIEW (Screw terminal block type)

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



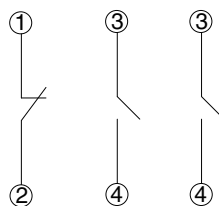
Lighted Switches (1NO/1NC)
Contact configuration code:102



Terminal Connection Diagrams

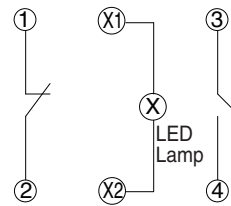
Non-lighted Switches (2NO/1NC)
Contact configuration code:112

Bottom View



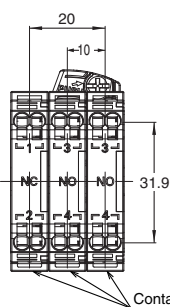
Lighted Switches (1NO/1NC)
Contact configuration code:102

Bottom View

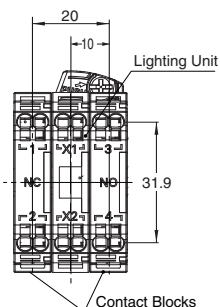


BOTTOM VIEW (Push-In Plus terminal block type)

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)

