

Pushbutton Switches A30NN/A30NL

30-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.
Workability and safety improvements.



Easy to Use

- You can connect up to three Contact Blocks in one stage for multistage expansion. (Screw 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)
- Contact Blocks can be attached in any direction for easy assembly.

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

- The buttons and bezels come in a wide variety of colors and shapes.

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

Button Colors

Non-lighted Switches	A30NN-□□□-N□ Opaque		Red	Green	Yellow	White	Blue	Black	
Non-lighted Switches	A30NN-□□□-U□ Transparent		Red	Green	Yellow	White	Blue	Orange	
Lighted Switches	A30NL-□□□-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).

A30NN/A30NL

List of Models

Screw Terminal Blocks/Push-In Plus Terminal Blocks

Brushed metal bezels

A30N□-MN

Flat



A30N□-MP

Projected



A30N□-MG

Full guard



A30N□-MM

Mushroom



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

Model Number Structure

Model Number Legend - - - Please order Operation Units, LED lamps (lighted models only), Mounting Collars, Contact Blocks, and Lighting Units (lighted models only) separately. LED lamps, Mounting Collars, Contact Blocks, Lighting Units, and Lock Ring can also be used with the A22N series.

Model Numbers for Sets

A 30 N ⁽¹⁾ L - ⁽²⁾ MN ⁽³⁾ M - ⁽⁴⁾ TR ⁽⁵⁾ A - ⁽⁶⁾ G ⁽⁷⁾ 100 - ⁽⁸⁾ R ⁽⁹⁾ B

(1) Type

Code	Description
N	Non-lighted
L	Lighted

(2) Bezel Material and Button Shape

Code	Bezel material	Button shape
MN	Brushed metal	Flat
MP	Brushed metal	Projected
MG	Brushed metal	Full guard
MM	Brushed metal	Mushroom

(3) Switch Action

Code	Function
M	Momentary Action: Self-Resetting
A	Alternate Action: Self-Holding

(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		
	UR	N	Transparent	Red		
	UG	N	Transparent	Green		
	UY	N	Transparent	Yellow		
	UW	N	Transparent	White		
Lighted	UA	N	Transparent	Blue	---	
	UO	N	Transparent	Orange		
	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	Conforming to IP66, NEMA 4X, NEMA13

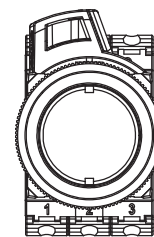
(6) Contacts and Terminals Specifications

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

(7) Contacts

Code	Contact Blocks		Unit position					
	NO	NC	Non-lighted			Lighted		
			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 60.
■ Subassemblies (Common): Refer to page 82.
■ Precautions for correct use: Refer to pages 88 to 99.

■ Dimensions: Refer to page 62.
■ Accessories and tools: Refer to pages 84 to 85.

Pushbutton Switches
A22N

Selector Switches
A22N

Key-type Selector Switches
A22N

Indicators
M22N

Pushbutton Switches
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Selector Switches
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Key-type Selector Switches
A30N

Subassemblies (Common)

Accessories and Tools


Safety Precautions

A30NN/A30NL


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	A30NN-MNM-(4)(4)A-G(7)(7)-NN	A30NN-MNA-(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 UR: Transparent, red UG: Transparent, green UY: Transparent, yellow UW: Transparent, white UA: Transparent, blue UO: Transparent, orange	100 002
		A30NN-MNM-(4)(4)A-P(7)(7)-NN	A30NN-MNA-(4)(4)A-P(7)(7)-NN		
	2	A30NN-MNM-(4)(4)A-G(7)(7)-NN	A30NN-MNA-(4)(4)A-G(7)(7)-NN		101 102 202
		A30NN-MNM-(4)(4)A-P(7)(7)-NN	A30NN-MNA-(4)(4)A-P(7)(7)-NN		
	3	A30NN-MNM-(4)(4)A-G(7)(7)-NN	A30NN-MNA-(4)(4)A-G(7)(7)-NN		111 112 122 222
		A30NN-MNM-(4)(4)A-P(7)(7)-NN	A30NN-MNA-(4)(4)A-P(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	A30NL-MNM-(4)(4)A-G(7)(7)-(8)(9)	A30NL-MNA-(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
		A30NL-MNM-(4)(4)A-P(7)(7)-(8)(9)	A30NL-MNA-(4)(4)A-P(7)(7)-(8)(9)				
	2	A30NL-MNM-(4)(4)A-G(7)(7)-(8)(9)	A30NL-MNA-(4)(4)A-G(7)(7)-(8)(9)		101 102 202		
		A30NL-MNM-(4)(4)A-P(7)(7)-(8)(9)	A30NL-MNA-(4)(4)A-P(7)(7)-(8)(9)				

Non-lighted, Projected Switches

Appearance	Contacts	Momentary action (self-resetting)	Alternate action (self-holding)	(4)(4) Button color	(7)(7)(7) Contacts
		Model	Model		
	1	A30NN-MPM-(4)(4)A-G(7)(7)-NN	A30NN-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 UR: Transparent, red UG: Transparent, green UY: Transparent, yellow UW: Transparent, white UA: Transparent, blue UO: Transparent, orange	100 002
		A30NN-MPM-(4)(4)A-P(7)(7)-NN	A30NN-MPA-(4)(4)A-P(7)(7)-NN		
	2	A30NN-MPM-(4)(4)A-G(7)(7)-NN	A30NN-MPA-(4)(4)A-G(7)(7)-NN		101 102 202
		A30NN-MPM-(4)(4)A-P(7)(7)-NN	A30NN-MPA-(4)(4)A-P(7)(7)-NN		
	3	A30NN-MPM-(4)(4)A-G(7)(7)-NN	A30NN-MPA-(4)(4)A-G(7)(7)-NN		111 112 122 222
		A30NN-MPM-(4)(4)A-P(7)(7)-NN	A30NN-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				
	1	A30NL-MPM-(4)(4)A-G(7)(7)-(8)(9)	A30NL-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
		A30NL-MPM-(4)(4)A-P(7)(7)-(8)(9)	A30NL-MPA-(4)(4)A-P(7)(7)-(8)(9)				
	2	A30NL-MPM-(4)(4)A-G(7)(7)-(8)(9)	A30NL-MPA-(4)(4)A-G(7)(7)-(8)(9)		101 102 202		
		A30NL-MPM-(4)(4)A-P(7)(7)-(8)(9)	A30NL-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. A30N□-□□□-TWA-□□□□-Y□


■ Subassemblies: Refer to pages 59 and 82.
(You can order Operation Units, LED Lamps, Mounting Collars, and Contact Blocks individually.)

■ Specifications: Refer to page 60. ■ Dimensions: Refer to page 62.
■ Accessories and tools: Refer to pages 84 to 85.


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		
Brushed metal bezels 	1	A30NN-MGM-(4)(4)A-G(7)(7)-NN	A30NN-MGA-(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 UR: Transparent, red UG: Transparent, green UY: Transparent, yellow UW: Transparent, white UA: Transparent, blue UO: Transparent, orange	100 002
		A30NN-MGM-(4)(4)A-P(7)(7)-NN	A30NN-MGA-(4)(4)A-P(7)(7)-NN		
	2	A30NN-MGM-(4)(4)A-G(7)(7)-NN	A30NN-MGA-(4)(4)A-G(7)(7)-NN		101 102 202
		A30NN-MGM-(4)(4)A-P(7)(7)-NN	A30NN-MGA-(4)(4)A-P(7)(7)-NN		
	3	A30NN-MGM-(4)(4)A-G(7)(7)-NN	A30NN-MGA-(4)(4)A-G(7)(7)-NN		111 112 122 222
		A30NN-MGM-(4)(4)A-P(7)(7)-NN	A30NN-MGA-(4)(4)A-P(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				
Brushed metal bezels 	1	A30NL-MGM-(4)(4)A-G(7)(7)-(8)(9)	A30NL-MGA-(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
		A30NL-MGM-(4)(4)A-P(7)(7)-(8)(9)	A30NL-MGA-(4)(4)A-P(7)(7)-(8)(9)				
	2	A30NL-MGM-(4)(4)A-G(7)(7)-(8)(9)	A30NL-MGA-(4)(4)A-G(7)(7)-(8)(9)		101 102 202		
		A30NL-MGM-(4)(4)A-P(7)(7)-(8)(9)	A30NL-MGA-(4)(4)A-P(7)(7)-(8)(9)				

Non-lighted, Mushroom Switches

Appearance	Contacts	Momentary action (self-resetting)	Alternate action (self-holding)	(4)(4) Button color	(7)(7)(7) Contacts
		Model	Model		
Brushed metal bezels 	1	A30NN-MMM-(4)(4)A-G(7)(7)-NN	A30NN-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 UR: Transparent, red UG: Transparent, green UY: Transparent, yellow UW: Transparent, white UA: Transparent, blue UO: Transparent, orange	100 002
		A30NN-MMM-(4)(4)A-P(7)(7)-NN	A30NN-MMA-(4)(4)A-P(7)(7)-NN		
	2	A30NN-MMM-(4)(4)A-G(7)(7)-NN	A30NN-MMA-(4)(4)A-G(7)(7)-NN		101 102 202
		A30NN-MMM-(4)(4)A-P(7)(7)-NN	A30NN-MMA-(4)(4)A-P(7)(7)-NN		
	3	A30NN-MMM-(4)(4)A-G(7)(7)-NN	A30NN-MMA-(4)(4)A-G(7)(7)-NN		111 112 122 222
		A30NN-MMM-(4)(4)A-P(7)(7)-NN	A30NN-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				
Brushed metal bezels 	1	A30NL-MMM-(4)(4)A-G(7)(7)-(8)(9)	A30NL-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
		A30NL-MMM-(4)(4)A-P(7)(7)-(8)(9)	A30NL-MMA-(4)(4)A-P(7)(7)-(8)(9)				
	2	A30NL-MMM-(4)(4)A-G(7)(7)-(8)(9)	A30NL-MMA-(4)(4)A-G(7)(7)-(8)(9)		101 102 202		
		A30NL-MMM-(4)(4)A-P(7)(7)-(8)(9)	A30NL-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. A30N□-□□□-TWA-□□□□-Y□

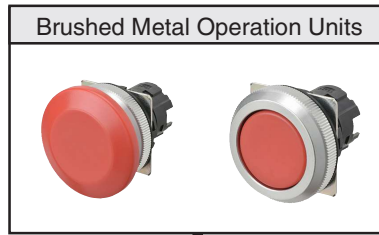
■ Subassemblies: Refer to pages 59 and 82.
 (You can order Operation Units, LED Lamps, Mounting Collars, and Contact Blocks individually.)

■ Specifications: Refer to page 60. ■ Dimensions: Refer to page 62.
 ■ Accessories and tools: Refer to pages 84 to 85.

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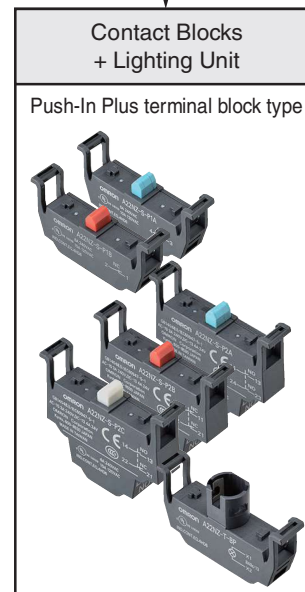
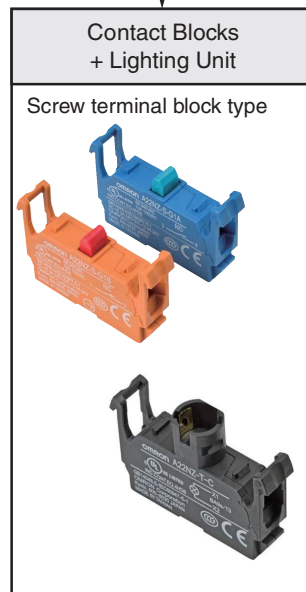
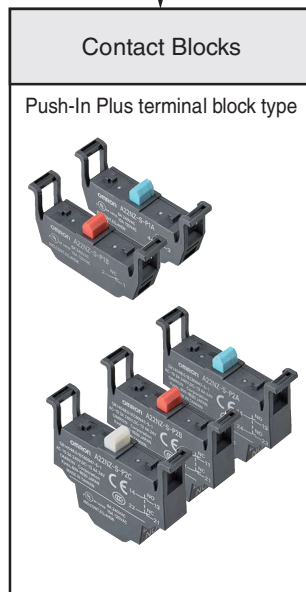
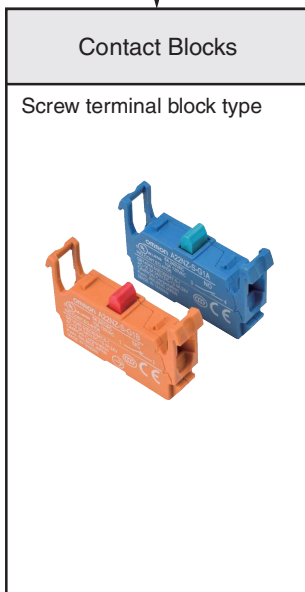
Ordering Information

Switch Structure - - - Please order Operation Units, LED lamps (lighted models only), Mounting Collars, Contact Blocks, and Lighting Units (lighted models only) separately. LED lamps, Mounting Collars, Contact Blocks, Lighting Units, and Lock Ring can also be used with the A22N series.



Non-lighted models

Lighted models



- Specifications: Refer to page 60.
- Subassemblies (Common): Refer to page 82.
- Precautions for correct use: Refer to pages 88 to 99.
- Dimensions: Refer to page 62.
- Accessories and tools: Refer to pages 84 to 85.

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Ordering Information

Subassemblies - - - - Please order Operation Units, LED lamps (lighted models only), Mounting Collars, Contact Blocks, and Lighting Units (lighted models only) separately. LED lamps, Mounting Collars, Contact Blocks, Lighting Units, and Lock Ring can also be used with the A22N series.

Operation Units

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	A30NZ-MNM-NRA	A30NZ-MNA-NRA	A30NZ-MPM-NRA	A30NZ-MPA-NRA
	Opaque	Green	A30NZ-MNM-NGA	A30NZ-MNA-NGA	A30NZ-MPM-NGA	A30NZ-MPA-NGA
	Opaque	Yellow	A30NZ-MNM-NYA	A30NZ-MNA-NYA	A30NZ-MPM-NYA	A30NZ-MPA-NYA
	Opaque	White	A30NZ-MNM-NWA	A30NZ-MNA-NWA	A30NZ-MPM-NWA	A30NZ-MPA-NWA
	Opaque	Blue	A30NZ-MNM-NAA	A30NZ-MNA-NAA	A30NZ-MPM-NAA	A30NZ-MPA-NAA
	Opaque	Black	A30NZ-MNM-NBA	A30NZ-MNA-NBA	A30NZ-MPM-NBA	A30NZ-MPA-NBA
	Transparent	Red	A30NZ-MNM-URA	A30NZ-MNA-URA	A30NZ-MPM-URA	A30NZ-MPA-URA
	Transparent	Green	A30NZ-MNM-UGA	A30NZ-MNA-UGA	A30NZ-MPM-UGA	A30NZ-MPA-UGA
	Transparent	Yellow	A30NZ-MNM-UYA	A30NZ-MNA-UYA	A30NZ-MPM-UYA	A30NZ-MPA-UYA
	Transparent	White	A30NZ-MNM-UWA	A30NZ-MNA-UWA	A30NZ-MPM-UWA	A30NZ-MPA-UWA
	Transparent	Blue	A30NZ-MNM-UAA	A30NZ-MNA-UAA	A30NZ-MPM-UAA	A30NZ-MPA-UAA
Lighted	Transparent	Red	A30NZ-MNM-TRA	A30NZ-MNA-TRA	A30NZ-MPM-TRA	A30NZ-MPA-TRA
	Transparent	Green	A30NZ-MNM-TGA	A30NZ-MNA-TGA	A30NZ-MPM-TGA	A30NZ-MPA-TGA
	Transparent	Yellow	A30NZ-MNM-TYA	A30NZ-MNA-TYA	A30NZ-MPM-TYA	A30NZ-MPA-TYA
	Transparent	White	A30NZ-MNM-TWA	A30NZ-MNA-TWA	A30NZ-MPM-TWA	A30NZ-MPA-TWA
	Transparent	Blue	A30NZ-MNM-TAA	A30NZ-MNA-TAA	A30NZ-MPM-TAA	A30NZ-MPA-TAA
	Transparent	Orange	A30NZ-MNM-TOA	A30NZ-MNA-TOA	A30NZ-MPM-TOA	A30NZ-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	A30NZ-MGM-NRA	A30NZ-MGA-NRA	A30NZ-MMM-NRA	A30NZ-MMA-NRA
	Opaque	Green	A30NZ-MGM-NGA	A30NZ-MGA-NGA	A30NZ-MMM-NGA	A30NZ-MMA-NGA
	Opaque	Yellow	A30NZ-MGM-NYA	A30NZ-MGA-NYA	A30NZ-MMM-NYA	A30NZ-MMA-NYA
	Opaque	White	A30NZ-MGM-NWA	A30NZ-MGA-NWA	A30NZ-MMM-NWA	A30NZ-MMA-NWA
	Opaque	Blue	A30NZ-MGM-NAA	A30NZ-MGA-NAA	A30NZ-MMM-NAA	A30NZ-MMA-NAA
	Opaque	Black	A30NZ-MGM-NBA	A30NZ-MGA-NBA	A30NZ-MMM-NBA	A30NZ-MMA-NBA
	Transparent	Red	A30NZ-MGM-URA	A30NZ-MGA-URA	A30NZ-MMM-URA	A30NZ-MMA-URA
	Transparent	Green	A30NZ-MGM-UGA	A30NZ-MGA-UGA	A30NZ-MMM-UGA	A30NZ-MMA-UGA
	Transparent	Yellow	A30NZ-MGM-UYA	A30NZ-MGA-UYA	A30NZ-MMM-UYA	A30NZ-MMA-UYA
	Transparent	White	A30NZ-MGM-UWA	A30NZ-MGA-UWA	A30NZ-MMM-UWA	A30NZ-MMA-UWA
	Transparent	Blue	A30NZ-MGM-UAA	A30NZ-MGA-UAA	A30NZ-MMM-UAA	A30NZ-MMA-UAA
Lighted	Transparent	Red	A30NZ-MGM-TRA	A30NZ-MGA-TRA	A30NZ-MMM-TRA	A30NZ-MMA-TRA
	Transparent	Green	A30NZ-MGM-TGA	A30NZ-MGA-TGA	A30NZ-MMM-TGA	A30NZ-MMA-TGA
	Transparent	Yellow	A30NZ-MGM-TYA	A30NZ-MGA-TYA	A30NZ-MMM-TYA	A30NZ-MMA-TYA
	Transparent	White	A30NZ-MGM-TWA	A30NZ-MGA-TWA	A30NZ-MMM-TWA	A30NZ-MMA-TWA
	Transparent	Blue	A30NZ-MGM-TAA	A30NZ-MGA-TAA	A30NZ-MMM-TAA	A30NZ-MMA-TAA
	Transparent	Orange	A30NZ-MGM-TOA	A30NZ-MGA-TOA	A30NZ-MMM-TOA	A30NZ-MMA-TOA

- Specifications: Refer to page 60.
- Dimensions: Refer to page 62.
- Subassemblies (Common): Refer to page 82.
- Accessories and tools: Refer to pages 84 to 85.
- Precautions for correct use: Refer to pages 88 to 99.

Pushbutton Switches
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 Subassemblies (Common)
(Common)
 Accessories and Tools
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 Safety Precautions
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A30NN/A30NL

Specifications (When the Operation Unit, LED Lamp, Mounting Collar, Contact Blocks, and Lighting Unit Are Combined)

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	

Pushbutton Switches
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Selector Switches
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Key-type Selector Switches
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Indicators
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Pushbutton Switches
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Selector Switches
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Key-type Selector Switches
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Subassemblies
(Common)

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Specifications (When the Operation Unit, LED Lamp, Mounting Collar, Contact Blocks, and Lighting Unit Are Combined)

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 ² 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* 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	
Electric shock protection class		Class II	
PTI (tracking characteristic)		175	
Degree of contamination (application environment)		3 (EN 60947-5-1)	
Weight		Approx. 60 g (for 1NC/1NO)	Approx. 75 g (for 1NC/1NO)

*1. With no icing or condensation.

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

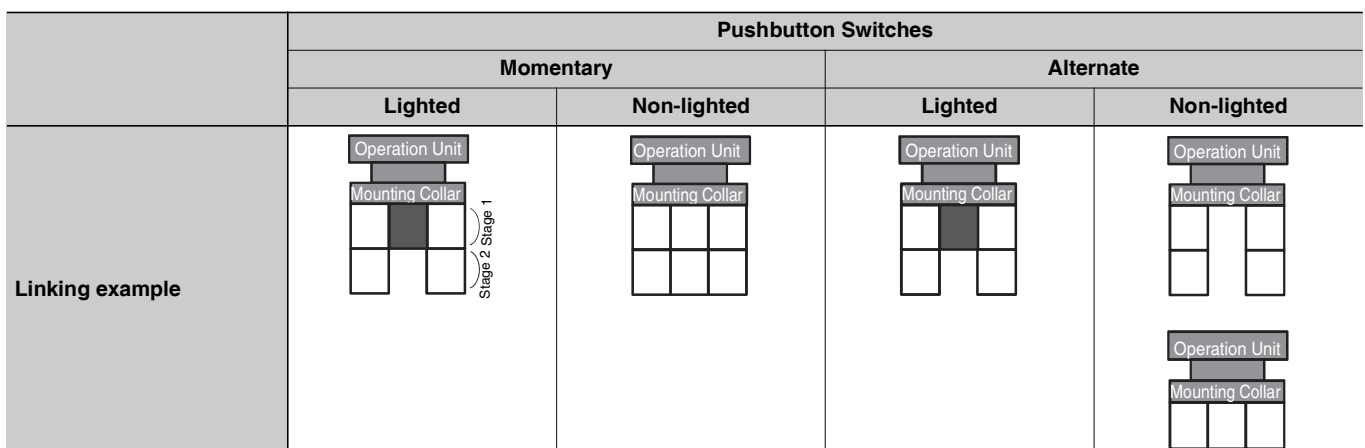
Operating Characteristics (for SPST-NO/SPST-NC)

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



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.

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 Safety Precautions

A30NN/A30NL

Dimensions

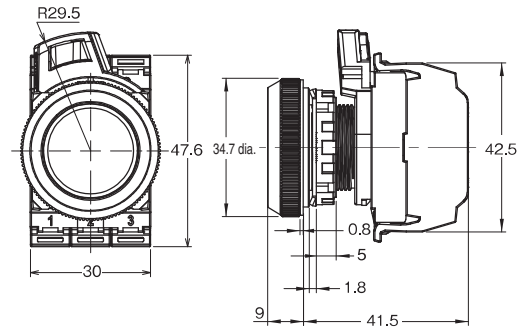
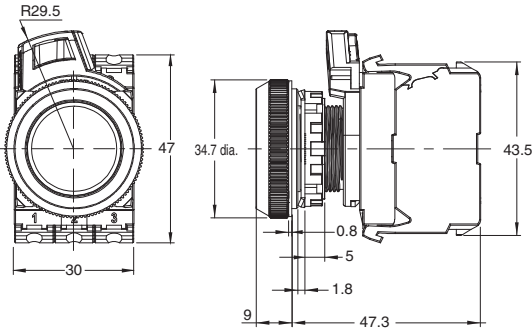
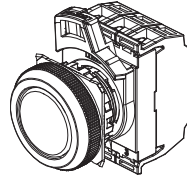
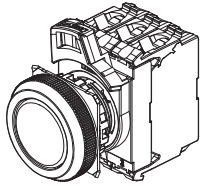
(Unit: mm)

Lighted and Non-lighted Pushbutton Switches

Flat Switches with Brushed Metal Bezels

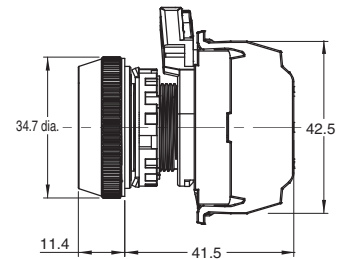
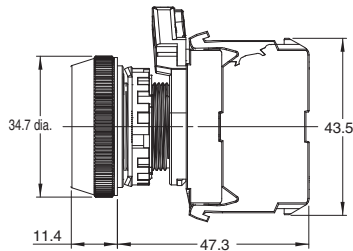
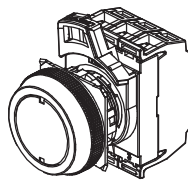
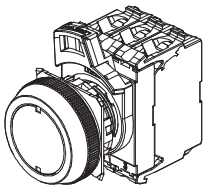
A30N□-MN□-N□A-G□-□□

A30N□-MN□-N□A-P□-□□



A30N□-MN□-T□A-G□-□□
A30N□-MN□-U□A-G□-□□

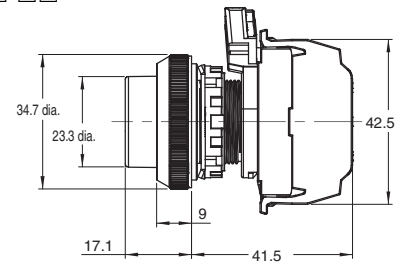
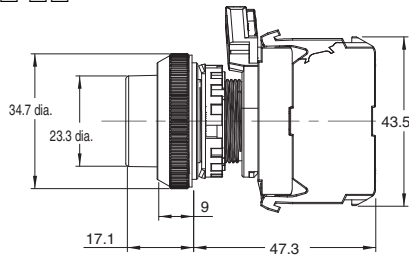
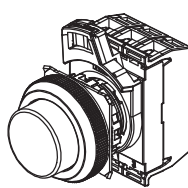
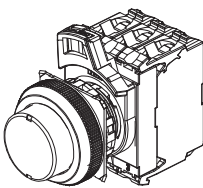
A30N□-MN□-T□A-P□-□□
A30N□-MN□-U□A-P□-□□



Projected Switches with Brushed Metal Bezels

A30N□-MP□-□□A-G□-□□

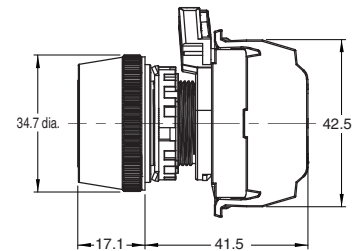
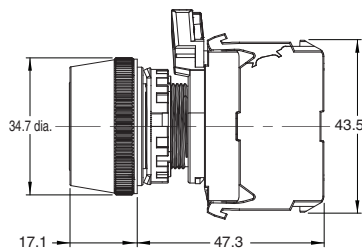
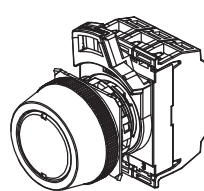
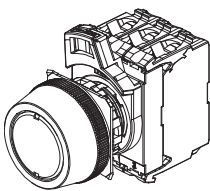
A30N□-MP□-□□A-P□-□□



Full-guard Switches with Brushed Metal Bezels

A30N□-MG□-□□A-G□-□□

A30N□-MG□-□□A-P□-□□



Pushbutton Switches
A22N

Selector Switches
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Key-type Selector Switches
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Indicators
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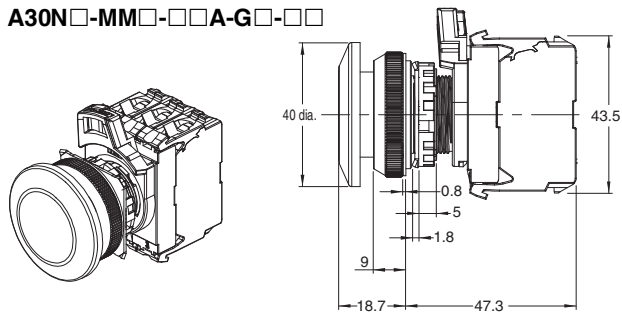
Subassemblies
(Common)

Accessories
and Tools

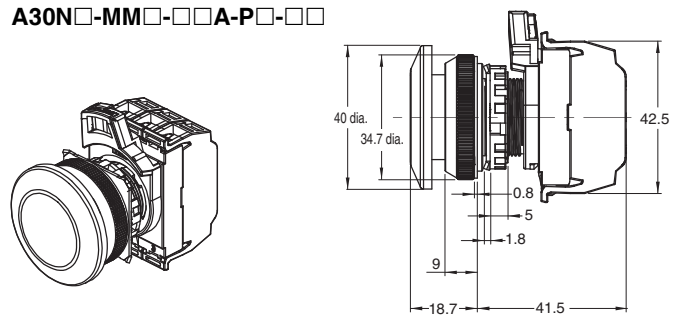
Safety
Precautions

Mushroom Switches with Brushed Metal Bezels

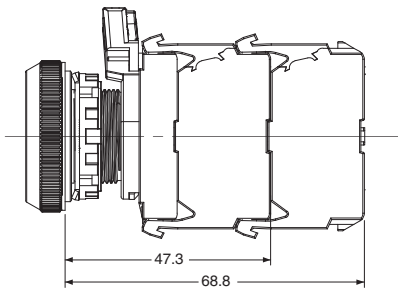
A30N□-MM□-□□A-G□-□□



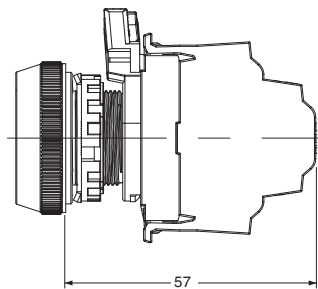
A30N□-MM□-□□A-P□-□□



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

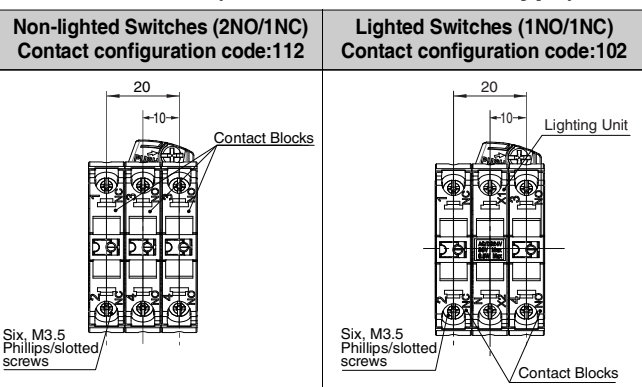


**Depth when a double-contact unit is mounted
(Push-In Plus terminal block type)**

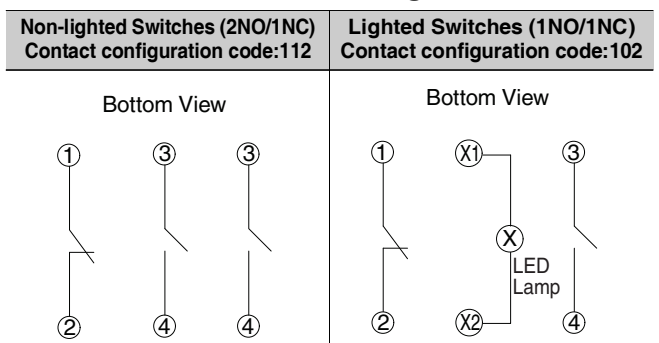


Terminal Arrangement

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)

