Indicators
M22N

22-mm dia. Indicators
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)

Miniaturization
- No need for extra lateral space because of the modified wiring direction. (Push-In Plus terminal block type)
- Compact design.

Product Lineup
- Meet global safety standards.
- Can be installed in two types of panel hole dimensions: 22.3 and 25.5 dia.
- The indicators come in a wide variety of colors and shapes.
- 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.**

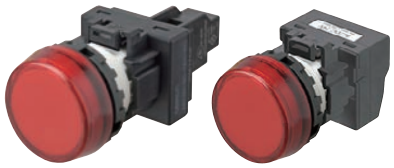
Indicator Unit Colors

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 Indicator Units (code: TW) and yellow LED Lamps (code: Y).

M22N

List of Models

Screw Terminal Blocks/Push-In Plus Terminal Blocks	
Appearance	**Model**
Plastic flat	**M22N-BN**
Plastic projected	**M22N-BP**
Plastic semi-spherical	**M22N-BG**
Plastic flat etched 	**M22N-BC**

Model Number Structure

Model Number Legend

- -Shipped as a set that includes the Indicator Unit, LED Lamp, and Socket Unit.
For information on combinations, refer to *Ordering Information* on page 46.

Model Numbers for Sets

M22N - (1) BN - (2)(3) TRA - (4)(5) RA - (6)

(1) Indicator Unit Shape

Code	Shape
BN	Plastic flat
BP	Plastic projected
BG	Plastic semi-spherical
BC	Plastic flat etched

(2) Indicator Color and (4) LED Lamp Color

Code (2)	Code (4)	Indicator color	LED Lamp color
TR	R	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 Indicator is lit.

(3) Degree of Protection

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

(5) LED Lamp Voltage

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

(6) Terminals Specifications

Code	Specification
No Code	Screw Terminal Block
P	Push-In Plus Terminal Block

■ Specifications: Refer to page 47.
■ Dimensions: Refer to page 48.
■ Accessories and tools: Refer to pages 80 to 81.
■ Precautions for correct use: Refer to pages 85 to 96.

M22N

Ordering Information

Model Numbers for Sets - - - - Shipped as a set that includes the Indicator Unit, LED Lamp, and Socket Unit.

Indicators

Appearance	Rated voltage	Model	(2)(2) Indicator color	(4) LED lamp color
Plastic flat	6 VAC/DC	**M22N-BN-(2)(2)A-(4)A**	**TR:** Transparent red **TG:** Transparent green **TY:** Transparent yellow **TW:** Transparent white **TA:** Transparent blue **TO:** Transparent orange	**R:** Red **G:** Green **Y:** Yellow **W:** White **A:** Blue **O:** Orange
		M22N-BN-(2)(2)A-(4)A-P		
	12 VAC/DC	**M22N-BN-(2)(2)A-(4)B**		
		M22N-BN-(2)(2)A-(4)B-P		
	24 VAC/DC	**M22N-BN-(2)(2)A-(4)C**		
		M22N-BN-(2)(2)A-(4)C-P		
	100, 110, or 120 VAC	**M22N-BN-(2)(2)A-(4)D**		
		M22N-BN-(2)(2)A-(4)D-P		
	200, 220, 230, or 240 VAC	**M22N-BN-(2)(2)A-(4)E**		
		M22N-BN-(2)(2)A-(4)E-P		
Plastic projected	6 VAC/DC	**M22N-BP-(2)(2)A-(4)A**		
		M22N-BP-(2)(2)A-(4)A-P		
	12 VAC/DC	**M22N-BP-(2)(2)A-(4)B**		
		M22N-BP-(2)(2)A-(4)B-P		
	24 VAC/DC	**M22N-BP-(2)(2)A-(4)C**		
		M22N-BP-(2)(2)A-(4)C-P		
	100, 110, or 120 VAC	**M22N-BP-(2)(2)A-(4)D**		
		M22N-BP-(2)(2)A-(4)D-P		
	200, 220, 230, or 240 VAC	**M22N-BP-(2)(2)A-(4)E**		
		M22N-BP-(2)(2)A-(4)E-P		
Plastic semi-spherical	6 VAC/DC	**M22N-BG-(2)(2)A-(4)A**		
		M22N-BG-(2)(2)A-(4)A-P		
	12 VAC/DC	**M22N-BG-(2)(2)A-(4)B**		
		M22N-BG-(2)(2)A-(4)B-P		
	24 VAC/DC	**M22N-BG-(2)(2)A-(4)C**		
		M22N-BG-(2)(2)A-(4)C-P		
	100, 110, or 120 VAC	**M22N-BG-(2)(2)A-(4)D**		
		M22N-BG-(2)(2)A-(4)D-P		
	200, 220, 230, or 240 VAC	**M22N-BG-(2)(2)A-(4)E**		
		M22N-BG-(2)(2)A-(4)E-P		
Plastic flat etched	6 VAC/DC	**M22N-BC-(2)(2)A-(4)A**		
		M22N-BC-(2)(2)A-(4)A-P		
	12 VAC/DC	**M22N-BC-(2)(2)A-(4)B**		
		M22N-BC-(2)(2)A-(4)B-P		
	24 VAC/DC	**M22N-BC-(2)(2)A-(4)C**		
		M22N-BC-(2)(2)A-(4)C-P		
	100, 110, or 120 VAC	**M22N-BC-(2)(2)A-(4)D**		
		M22N-BC-(2)(2)A-(4)D-P		
	200, 220, 230, or 240 VAC	**M22N-BC-(2)(2)A-(4)E**		
		M22N-BC-(2)(2)A-(4)E-P		

Note: Normally, the Indicator Unit and LED Lamp with the same color are combined.
However, opaque white is available by combining a white Indicator Unit and yellow LED. M22N-B□-TWA-Y□-□

■ Specifications: Refer to page 47.
■ Dimensions: Refer to page 48.
■ Accessories and tools: Refer to pages 80 to 81.
■ Precautions for correct use: Refer to pages 85 to 96.

Ratings and Specifications

Certified Standard Ratings

UL508 Type 4X, 13 (File No.E76675), CSA C22.2 No.14
12 mA 6 VAC/DC
12 mA 12 VAC/DC
12 mA 24 VAC/DC
12 mA 100-120 VAC
12 mA 200-240 VAC

TÜV (EN60947-5-1)
80 mA 6 VAC/DC
40 mA 12 VAC/DC
20 mA 24 VAC/DC
10 mA 100-120 VAC
5 mA 200-240 VAC

CCC (GB/T14048.5)
6, 12, 24 VAC/DC
100-120, 200-240 VAC

Application Standards

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

Ratings

LED Lamps

Rated voltage	Applied voltage	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	100-130 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	220-250 VAC	

Characteristics

Item	Type	Indicator
Allowable operating frequency	Mechanical	---
	Electrical	---
Insulation resistance		---
Contact resistance		---
Dielectric strength	Between terminals of same polarity	---
	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
Shock resistance	Malfunction	1,000 m/s^2 max.
Durability	Mechanical	---
	Electrical	---
Ambient operating temperature*1		–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. 30 g

*1. With no icing or condensation.
*2. Degree of protection from the front of the panel.

M22N

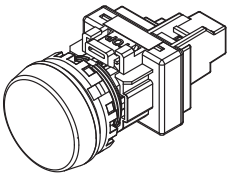
Dimensions

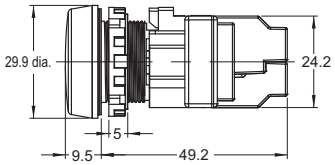
(Unit: mm)

Indicators

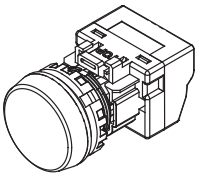
Plastic Flat Indicators

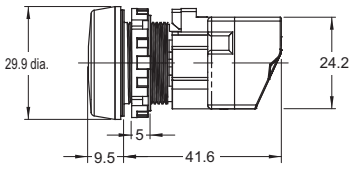
M22N-BN-□□A-□□





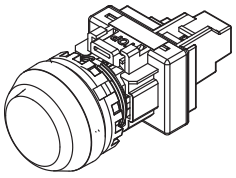
M22N-BN-□□A-□□-P

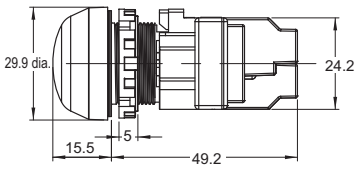




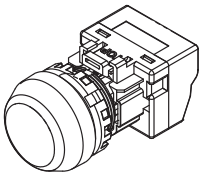
Plastic Semi-spherical Indicators

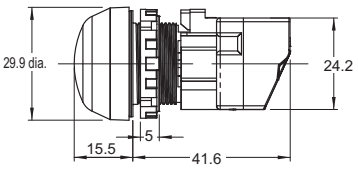
M22N-BG-□□A-□□





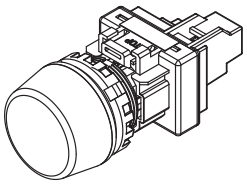
M22N-BG-□□A-□□-P

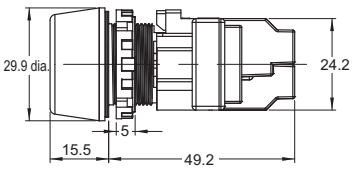




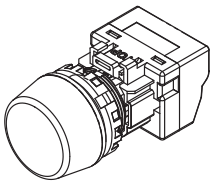
Plastic Projected Indicators

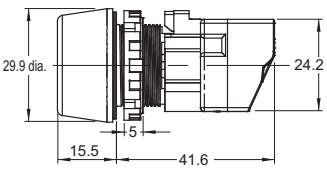
M22N-BP-□□A-□□





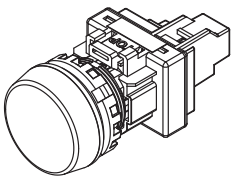
M22N-BP-□□A-□□-P

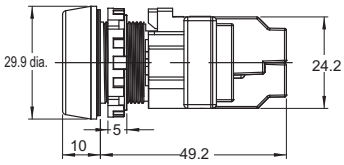




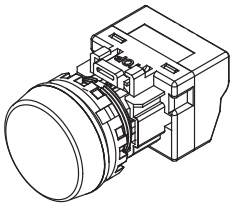
Plastic Flat Etched Indicators

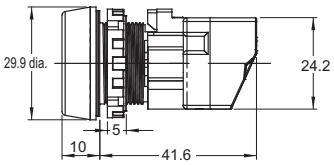
M22N-BC-□□A-□□





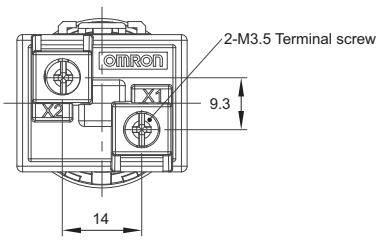
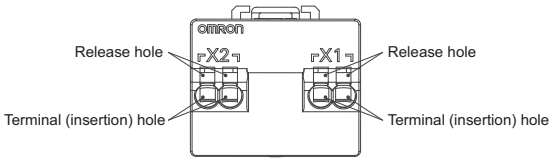
M22N-BC-□□A-□□-P

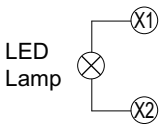




Terminal Arrangement

BOTTOM VIEW

Screw terminal block type	Push-in Plus terminal block type
	

Terminal Connection Diagrams

Screw terminal block type
Push-in Plus terminal block type