

# Key-type Selector Switches

# A22NK

**22-mm dia. Key-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

- You can connect up to three Contact Blocks in one stage for multistage expansion.
- 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.

## Miniaturization

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

## 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

- Meet global safety standards.
- Can be installed in two types of panel hole dimensions: 22.3 and 25.5 dia.
- The buttons and bezels come in a wide variety of colors, shapes, and materials.
- Compliant with IEC IP66, Certified for UL508 Type 13.

Refer to *Safety Precautions for All Pushbutton Switches/Indicators and Safety Precautions* on page 85.

## List of Models

| Screw Terminal Blocks/Push-In Plus Terminal Blocks |                 |
|----------------------------------------------------|-----------------|
| Plastic bezels                                     |                 |
| A22NK-□B                                           |                 |
| Two Positions                                      | Three Positions |
|                                                    |                 |

| Screw Terminal Blocks/Push-In Plus Terminal Blocks |                 |
|----------------------------------------------------|-----------------|
| Brushed metal bezels                               |                 |
| A22NK-□M                                           |                 |
| Two Positions                                      | Three Positions |
|                                                    |                 |

## Model Number Structure

### Model Number Legend

----- Shipped as a set that includes the Operation Unit, Mounting Collar, and Contact Block.  
For information on combinations, refer to *Ordering Information* on page 36.

### Model Numbers for Sets

A 2 2 N <sup>(1)</sup> K - <sup>(2)</sup> 2 <sup>(3)</sup> B <sup>(4)</sup> M - <sup>(5)</sup> 0 <sup>(6)</sup> 1 <sup>(7)</sup> A <sup>(8)</sup> A - G 1 0 0

#### (1) Type

| Code | Type                     |
|------|--------------------------|
| K    | Key-type Selector Switch |

#### (4) Key Number

| Code | No.  |
|------|------|
| 01   | No.1 |

#### (2) Number of Positions and Bezel Material

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

#### (5) Key Release Position \*

| Code | Release position | Two positions | Three positions |
|------|------------------|---------------|-----------------|
| A    | All positions    |               |                 |
| B    | Left             |               |                 |
| C    | Right            |               |                 |
| D    | Center           | ---           |                 |
| G    | Left and right   | ---           |                 |

○: Release position    ●: Locked position  
\* The key can only be removed when in the free position for automatic reset models.

#### (3) Reset Method

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

#### (6) Degree of Protection

| Code | Protection                                           |
|------|------------------------------------------------------|
| A    | Compliant with IEC IP66, Certified for UL508 Type 13 |

#### (7) Contacts and Terminals Specifications

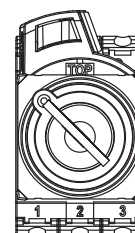
| Code | Specification                       |
|------|-------------------------------------|
| G    | General/Screw Terminal Block        |
| P    | General/Push-In Plus Terminal Block |

#### (8) Contact Configuration

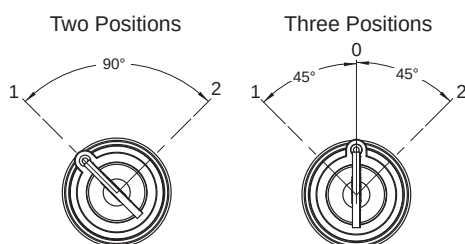
| Code | Contact Blocks |    | Unit position |     |     | Two positions | Three positions |
|------|----------------|----|---------------|-----|-----|---------------|-----------------|
|      | NO             | NC | 1             | 2   | 3   |               |                 |
| 100  | 1           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

**Note:** 1. NO (blue): Normally open, NC (orange): Normally closed.

2. Refer to the following figure for Unit positions.



### Operation Angle



- Specifications: Refer to page 12.
- Dimensions: Refer to page 41.

- Characteristics: Refer to page 40.
- Precautions for correct use: Refer to pages 85 to 96.

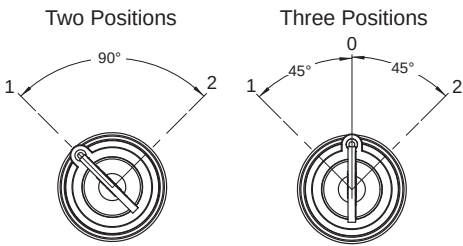
A22NK

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/<br>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/<br>DPST-NC   | 1             | NO       |          | ON  |
|                |      |                       | 2             | NC       | ON       |     |
|                |      |                       | 3             | NC       | ON       |     |
| 3              | 112  | DPST-NO/<br>SPST-NC   | 1             | NO       |          | ON  |
|                |      |                       | 2             | NO       |          | ON  |
|                |      |                       | 3             | NC       | ON       |     |

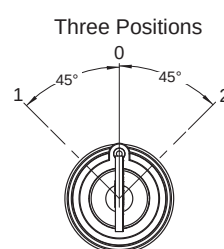
Operation Angle



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



| 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/<br>SPST-NC   | 1             | NO       | ON       |     |     |
|                |      |                       | 2             | NC       |          | ON  |     |
|                |      |                       | 3             | ---      | ---      | --- | --- |
| 2              | 102  | SPST-NO/<br>SPST-NC   | 1             | NO       | ON       |     |     |
|                |      |                       | 2             | ---      | ---      | --- | --- |
|                |      |                       | 3             | NC       | ON       | ON  |     |
| 2              | 210  | SPST-NO/<br>SPST-NC   | 1             | NC       |          | ON  | ON  |
|                |      |                       | 2             | NO       | ON       |     | ON  |
|                |      |                       | 3             | ---      | ---      | --- | --- |
| 2              | 201  | SPST-NO/<br>SPST-NC   | 1             | NC       |          | ON  | ON  |
|                |      |                       | 2             | ---      | ---      | --- | --- |
|                |      |                       | 3             | NO       |          |     | ON  |
| 2              | 012  | SPST-NO/<br>SPST-NC   | 1             | ---      | ---      | --- | --- |
|                |      |                       | 2             | NO       | ON       |     | ON  |
|                |      |                       | 3             | NC       | ON       | ON  |     |
| 2              | 021  | SPST-NO/<br>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/<br>DPST-NC   | 1             | NO       | ON       |     |     |
|                |      |                       | 2             | NC       |          | ON  |     |
|                |      |                       | 3             | NC       | ON       | ON  |     |
| 3              | 212  | SPST-NO/<br>DPST-NC   | 1             | NC       |          | ON  | ON  |
|                |      |                       | 2             | NO       | ON       |     | ON  |
|                |      |                       | 3             | NC       | ON       | ON  |     |
| 3              | 221  | SPST-NO/<br>DPST-NC   | 1             | NC       |          | ON  | ON  |
|                |      |                       | 2             | NC       |          | ON  |     |
|                |      |                       | 3             | NO       |          |     | ON  |
| 3              | 211  | DPST-NO/<br>SPST-NC   | 1             | NC       |          | ON  | ON  |
|                |      |                       | 2             | NO       | ON       |     | ON  |
|                |      |                       | 3             | NO       |          |     | ON  |
| 3              | 121  | DPST-NO/<br>SPST-NC   | 1             | NO       | ON       |     |     |
|                |      |                       | 2             | NC       |          | ON  |     |
|                |      |                       | 3             | NO       |          |     | ON  |
| 3              | 112  | DPST-NO/<br>SPST-NC   | 1             | NO       | ON       |     |     |
|                |      |                       | 2             | NO       | ON       |     | ON  |
|                |      |                       | 3             | NC       | ON       | ON  |     |

■ Specifications: Refer to page 12.  
■ Dimensions: Refer to page 41.

■ Characteristics: Refer to page 40.  
■ Precautions for correct use: Refer to pages 85 to 96.

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

# A22NK

## Ordering Information

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

**Two-position, Key-type Selector Switches**

| Appearance                                                                                                | Bezel material | No. of outputs | Model                         | (3)<br>Reset method                                   | (5)<br>Key release positions                                 | (8)(8)(8)<br>Contact configuration |
|-----------------------------------------------------------------------------------------------------------|----------------|----------------|-------------------------------|-------------------------------------------------------|--------------------------------------------------------------|------------------------------------|
| Plastic bezels<br>       | 2B             | 1              | A22NK-2B(3)-01(5)A-G(8)(8)(8) | <b>M:</b> Manual<br><b>L:</b> Automatic reset on left | <b>A:</b> All positions<br><b>B:</b> Left<br><b>C:</b> Right | 100                                |
|                                                                                                           |                |                | A22NK-2B(3)-01(5)A-P(8)(8)(8) |                                                       |                                                              | 002                                |
|                                                                                                           |                | 2              | A22NK-2B(3)-01(5)A-G(8)(8)(8) |                                                       |                                                              | 102                                |
|                                                                                                           |                |                | A22NK-2B(3)-01(5)A-P(8)(8)(8) |                                                       |                                                              | 101                                |
|                                                                                                           |                | 3              | A22NK-2B(3)-01(5)A-G(8)(8)(8) |                                                       |                                                              | 202                                |
|                                                                                                           |                |                | A22NK-2B(3)-01(5)A-P(8)(8)(8) |                                                       |                                                              | 111                                |
| Brushed metal bezels<br> | 2M             | 1              | A22NK-2M(3)-01(5)A-G(8)(8)(8) |                                                       |                                                              | 222                                |
|                                                                                                           |                |                | A22NK-2M(3)-01(5)A-P(8)(8)(8) |                                                       |                                                              | 112                                |
|                                                                                                           |                | 2              | A22NK-2M(3)-01(5)A-G(8)(8)(8) |                                                       |                                                              | 100                                |
|                                                                                                           |                |                | A22NK-2M(3)-01(5)A-P(8)(8)(8) |                                                       |                                                              | 002                                |
|                                                                                                           |                | 3              | A22NK-2M(3)-01(5)A-G(8)(8)(8) |                                                       |                                                              | 102                                |
|                                                                                                           |                |                | A22NK-2M(3)-01(5)A-P(8)(8)(8) |                                                       |                                                              | 101                                |
|                                                                                                           |                |                | A22NK-2M(3)-01(5)A-G(8)(8)(8) |                                                       |                                                              | 202                                |
|                                                                                                           |                |                | A22NK-2M(3)-01(5)A-P(8)(8)(8) |                                                       |                                                              | 111                                |

### Three-position, Key-type Selector Switches

| Appearance                                                                                                  | Bezel material | No. of outputs | Model                         | (3)<br>Reset method                                                                                                                        | (5)<br>Key release positions                                                                                 | (8)(8)(8)<br>Contact configuration |
|-------------------------------------------------------------------------------------------------------------|----------------|----------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|------------------------------------|
| Plastic bezels<br>       | 3B             | 2              | A22NK-3B(3)-01(5)A-G(8)(8)(8) | <b>M:</b> Manual<br><b>L:</b> Automatic reset on left<br><b>R:</b> Automatic reset on right<br><b>B:</b> Automatic reset on left and right | <b>A:</b> All positions<br><b>B:</b> Left<br><b>C:</b> Right<br><b>D:</b> Center<br><b>G:</b> Left and right | 110                                |
|                                                                                                             |                |                | A22NK-3B(3)-01(5)A-P(8)(8)(8) |                                                                                                                                            |                                                                                                              | 011                                |
|                                                                                                             |                |                |                               |                                                                                                                                            |                                                                                                              | 101                                |
|                                                                                                             |                |                |                               |                                                                                                                                            |                                                                                                              | 220                                |
|                                                                                                             |                | 3              | A22NK-3B(3)-01(5)A-G(8)(8)(8) |                                                                                                                                            |                                                                                                              | 022                                |
|                                                                                                             |                |                | A22NK-3B(3)-01(5)A-P(8)(8)(8) |                                                                                                                                            |                                                                                                              | 202                                |
| Brushed metal bezels<br> | 3M             | 2              |                               |                                                                                                                                            |                                                                                                              | 120                                |
|                                                                                                             |                |                |                               |                                                                                                                                            |                                                                                                              | 102                                |
|                                                                                                             |                |                |                               |                                                                                                                                            |                                                                                                              | 210                                |
|                                                                                                             |                |                |                               |                                                                                                                                            |                                                                                                              | 201                                |
|                                                                                                             |                | 3              |                               |                                                                                                                                            |                                                                                                              | 012                                |
|                                                                                                             |                |                |                               |                                                                                                                                            |                                                                                                              | 021                                |
|                                                                                                             |                |                |                               |                                                                                                                                            |                                                                                                              | 111                                |
|                                                                                                             |                |                |                               |                                                                                                                                            |                                                                                                              | 222                                |

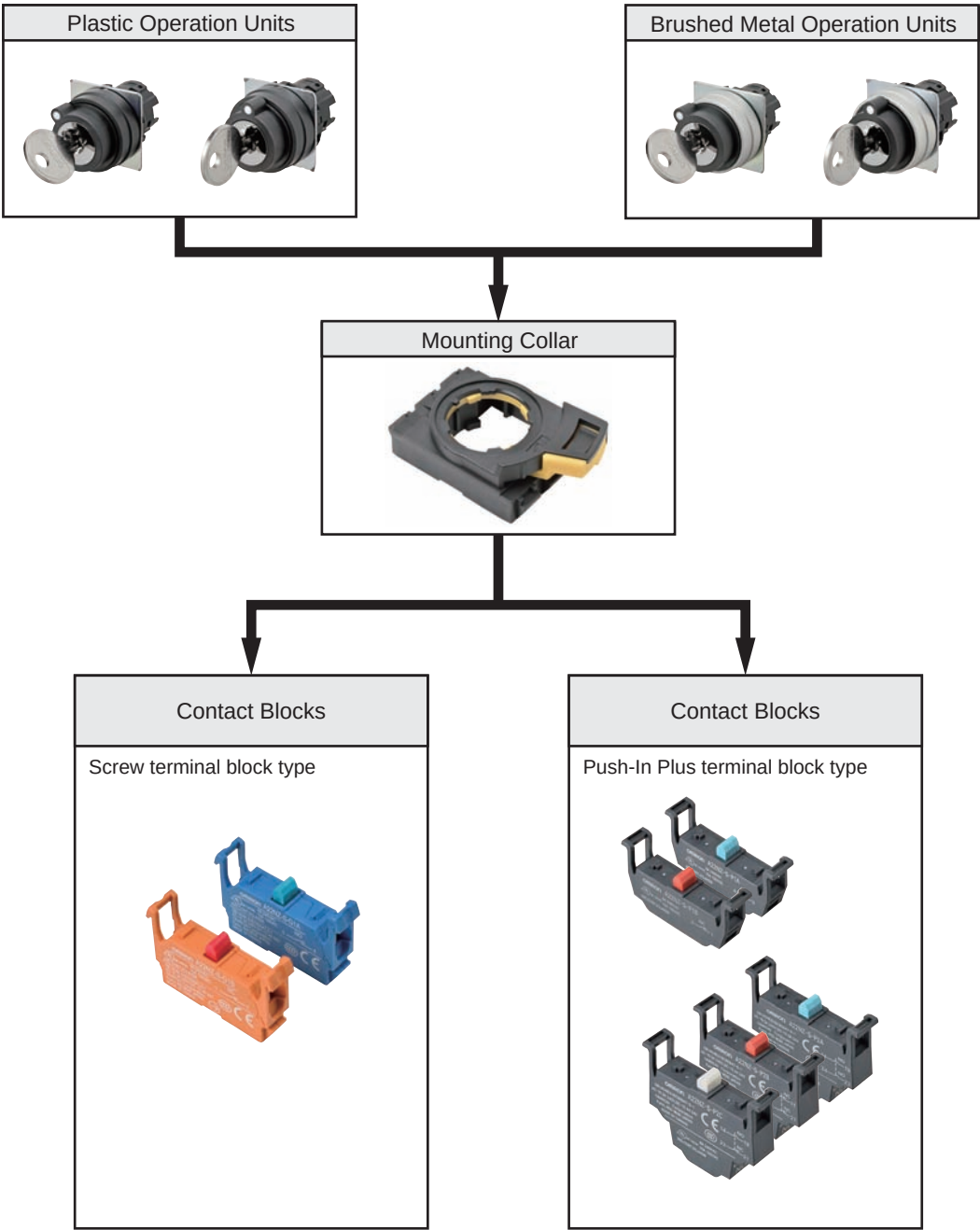
■ Subassemblies: Refer to pages 37 to 38 and 82.  
 (You can order Operation Units, Mounting Collars, and Contact Blocks individually.)

■ Specifications: Refer to page 13  
 ■ Dimensions: Refer to page 41.  
 ■ Accessories and tools: Refer to pages 84 to 85.

■ Characteristics: Refer to page 40.

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.



■ Model numbers of sets: Refer to page 36.  
■ Specifications: Refer to page 12.  
■ Characteristics: Refer to page 40.

■ Dimensions: Refer to page 41.  
■ Subassemblies (Common): Refer to page 78.  
■ Accessories and tools: Refer to pages 80 to 81.

|                                    |
|------------------------------------|
| Pushbutton Switches<br>A22N        |
| Selector Switches<br>A22N          |
| Key-type Selector Switches<br>A22N |
| Indicators<br>M22N                 |
| Pushbutton Switches<br>A30N        |
| Selector Switches<br>A30N          |
| Key-type Selector Switches<br>A30N |
| Subassemblies<br>(Common)          |
| Accessories<br>and Tools           |
| Safety<br>Precautions              |

# A22NK

## 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 Units

| Bezel material and shape |                                   | Plastic          | Brushed metal    | (1)<br>Key release positions                                              |
|--------------------------|-----------------------------------|------------------|------------------|---------------------------------------------------------------------------|
| No. of positions         | Reset method                      | Model            | Model            |                                                                           |
| 2                        | Manual                            | A22NZ-2BM-01(1)A | A22NZ-2MM-01(1)A | A: All positions<br>B: Left<br>C: Right                                   |
|                          | Automatic reset on left           | A22NZ-2BL-01(1)A | A22NZ-2ML-01(1)A |                                                                           |
| 3                        | Manual                            | A22NZ-3BM-01(1)A | A22NZ-3MM-01(1)A | A: All positions<br>B: Left<br>C: Right<br>D: Center<br>G: Left and right |
|                          | Automatic reset on left           | A22NZ-3BL-01(1)A | A22NZ-3ML-01(1)A |                                                                           |
|                          | Automatic reset on right          | A22NZ-3BR-01(1)A | A22NZ-3MR-01(1)A |                                                                           |
|                          | Automatic reset on left and right | A22NZ-3BB-01(1)A | A22NZ-3MB-01(1)A |                                                                           |

■ Model numbers of sets: Refer to page 36.  
 ■ Specifications: Refer to page 12.  
 ■ Characteristics: Refer to page 40.

■ Dimensions: Refer to page 41.  
 ■ Subassemblies (Common): Refer to page 78.  
 ■ Accessories and tools: Refer to pages 80 to 81.

Specifications

Certified Safety Standard Ratings

UL508 Type 13 (File No. E76675), CSA C22.2 No.14  
6 A 240 VAC, 10 A 120 VAC  
TÜV (EN60947-5-1)  
AC-15 3 A 240 VAC  
DC-13 4 A 24 VDC  
CCC (GB/T14048.5)  
AC-15 3 A 240 VAC  
DC-13 4 A 24 VDC

Application Standards

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

Ratings

Contacts (Standard Load)

|                          |                        |       |       |        |       |       |
|--------------------------|------------------------|-------|-------|--------|-------|-------|
| Rated insulation voltage |                        | 600 V |       |        |       |       |
| Rated carry current      |                        | 10 A  |       |        |       |       |
| Rated voltage            |                        | 24 V  | 120 V | 240 V  | 380 V | 440 V |
| AC at 50/60 Hz           | Resistive load (AC-12) | 10 A  | 10 A  | 6 A    | 2A    | 2 A   |
|                          | Inductive load (AC-15) | 10 A  | 6 A   | 3 A    | 1.9 A | 1.6 A |
| DC                       | Resistive load (DC-12) | 8 A   | 2.2 A | 1.1 A  | ---   | ---   |
|                          | Inductive load (DC-13) | 4 A   | 1.1 A | 0.55 A | ---   | ---   |

**Note:** 1. The above ratings were obtained by conducting tests under the following conditions.  
(1) Ambient temperature: 20 ±2°C  
(2) Ambient humidity: 65% ±5% RH  
(3) Operating frequency: 30 operations/minute  
2. Minimum applicable load: 10 mA at 5 VDC.

|                                    |
|------------------------------------|
| Pushbutton Switches<br>A22N        |
| Selector Switches<br>A22N          |
| Key-type Selector Switches<br>A22N |
| Indicators<br>M22N                 |
| Pushbutton Switches<br>A30N        |
| Selector Switches<br>A30N          |
| Key-type Selector Switches<br>A30N |
| Subassemblies<br>(Common)          |
| Accessories<br>and Tools           |
| Safety<br>Precautions              |



# A22NK

## Specifications

### Characteristics

| Type                                              |                                    | Key-type Selector Switches                                                                                                                          |
|---------------------------------------------------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Item                                              |                                    |                                                                                                                                                     |
| Allowable operating frequency                     | Mechanical                         | 30 operations/minute max.                                                                                                                           |
|                                                   | Electrical                         | 30 operations/minute max.                                                                                                                           |
| Insulation resistance                             |                                    | 100 MΩ min. (at 500 VDC)                                                                                                                            |
| 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)                                                                                                    |
|                                                   | 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 <sup>2</sup> 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                                                                                                                                         |
| 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 13                                                                                                |
| Electric shock protection class                   |                                    | Class II                                                                                                                                            |
| PTI (tracking characteristic)                     |                                    | 175                                                                                                                                                 |
| Degree of contamination (application environment) |                                    | 3 (EN 60947-5-1)                                                                                                                                    |
| Weight                                            |                                    | Approx. 65 g (for 1NC/1NO)                                                                                                                          |

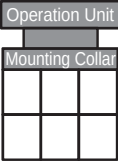
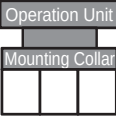
\*1. With no icing or condensation.  
\*2. Degree of protection from the front of the panel.

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

| Type                                      | Key-type Selector Switches                         |                 |
|-------------------------------------------|----------------------------------------------------|-----------------|
|                                           | Manual reset                                       | Automatic reset |
| Item                                      |                                                    |                 |
| 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

|                 | Key-type Selector Switches                                                          |                                                                                     |
|-----------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                 | 2 positions                                                                         | 3 positions                                                                         |
| Linking example |  |  |

**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.

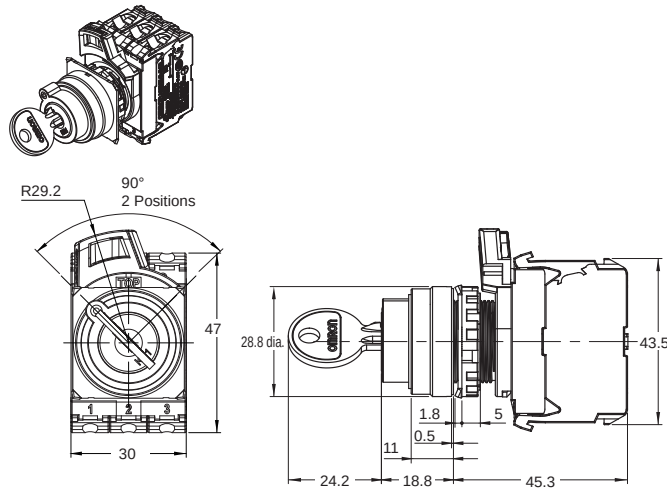
Dimensions

(Unit: mm)

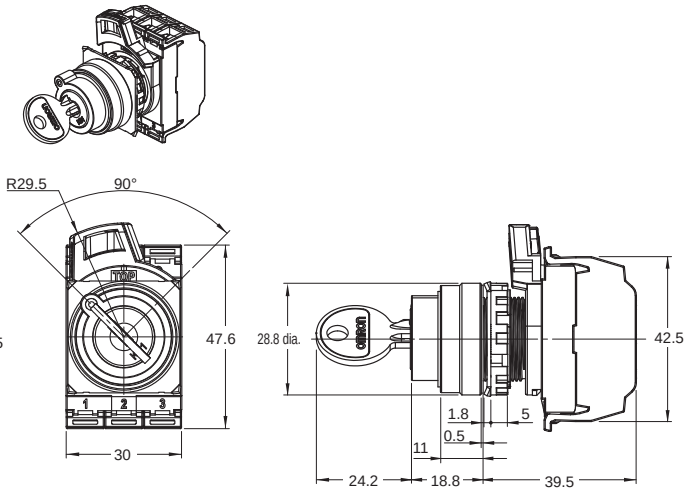
Lighted and Non-lighted Key-type Selection Switches

Two-position Switches with Plastic Bezels

A22NK-2B□-01□A-G

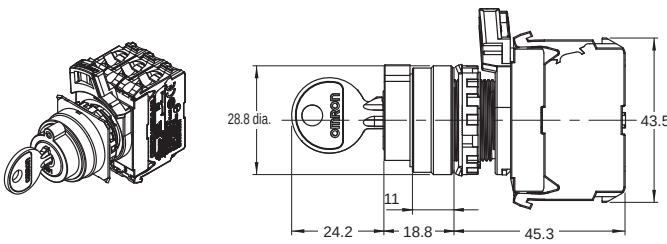


A22NK-2B□-01□A-P

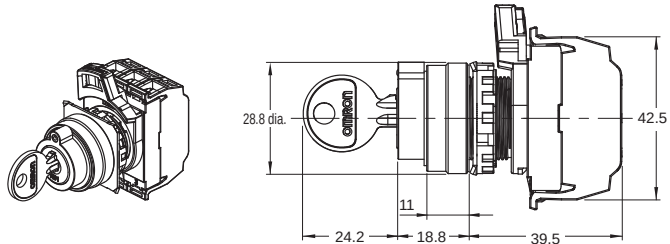


Three-position Switches with Plastic Bezels

A22NK-3B□-01□A-G

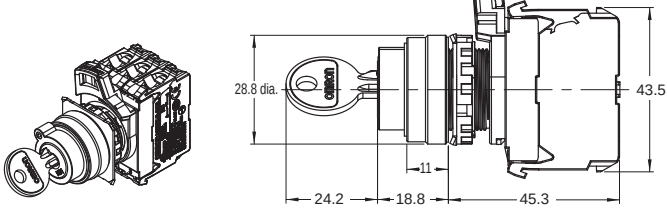


A22NK-3B□-01□A-P

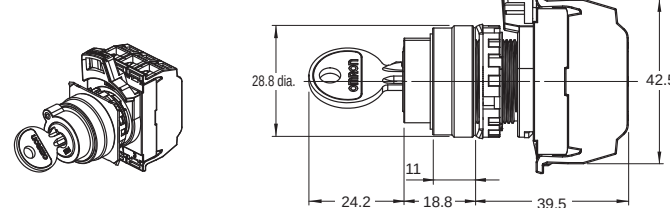


Two-position Switches with Brushed Metal Bezels

A22NK-2M□-01□A-G

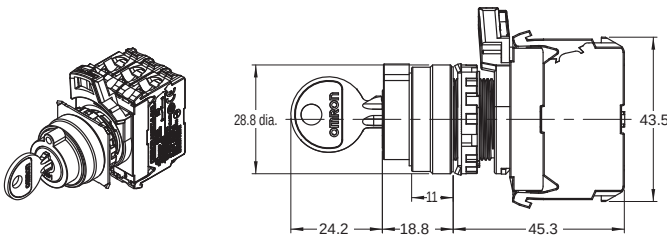


A22NK-2M□-01□A-P

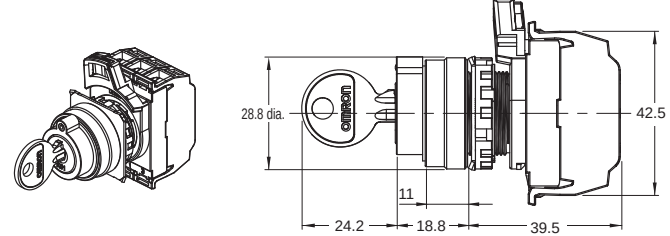


Three-position Switches with Brushed Metal Bezels

A22NK-3M□-01□A-G

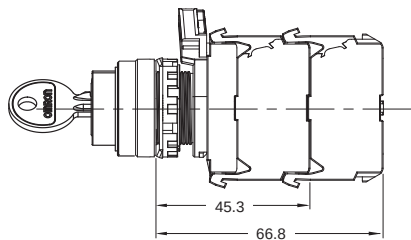


A22NK-3M□-01□A-P

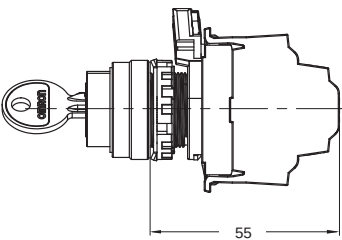


# A22NK

Depth with Linked Units  
(Screw terminal block type)

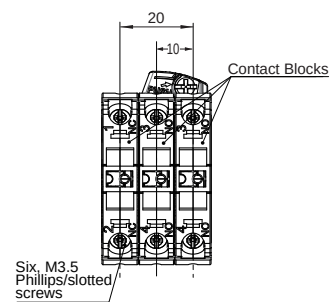


Depth when a double-contact unit is mounted  
(Push-In Plus terminal block type)



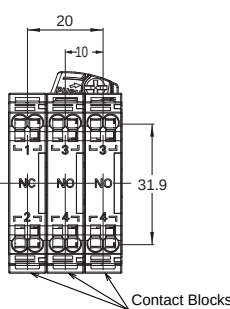
Terminal Arrangement  
BOTTOM VIEW  
(Screw terminal block type)

2NO/1NC  
Contact configuration code:112

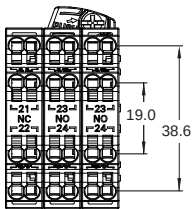


BOTTOM VIEW  
(Push-in Plus terminal block type)

2NO/1NC  
Contact configuration code:112



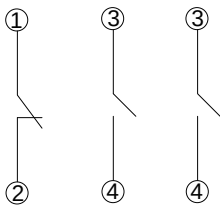
Double-contact unit  
(2NO/2NO/2NC)



## Terminal Connection Diagrams

2NO/1NC  
Contact configuration code:112

Bottom View



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