

## Buzzer Unit Series with Cylindrical 22-mm × 16-dia. Body

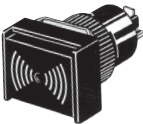
- Lineup includes standard-volume models (80 phons, constant) and high-volume models (70 to 95 phons, variable). Intermittent or continuous sound can be selected.



 Refer to "Safety Precautions for All Pushbutton Switches" and "Safety Precautions" on page 5.

## List of Models

### Buzzer

| Appearance                                                                                                              | Model   |
|-------------------------------------------------------------------------------------------------------------------------|---------|
| Rectangular standard-volume model<br> | M2BJ-B  |
| Rectangular high-volume model<br>    | M2BJ-BH |

Ordering Information

| Appearance                           |       |  |                     |                           |                                   |  |                             |
|--------------------------------------|-------|-----------------------------------------------------------------------------------|---------------------|---------------------------|-----------------------------------|-------------------------------------------------------------------------------------|-----------------------------|
|                                      |       | Standard sound                                                                    |                     |                           |                                   | High sound *1                                                                       |                             |
|                                      |       | w/jumper direction A *2                                                           | Intermittent        | Intermittent (short)      | Intermittent (high-pitched)       | Intermittent (short, high-pitched)                                                  | Intermittent (high-pitched) |
| w/jumper direction B *2 (w/o jumper) |       | Continuous                                                                        | Intermittent (long) | Continuous (high-pitched) | Intermittent (long, high-pitched) | Continuous                                                                          | Intermittent (long)         |
| Supply voltage                       |       |                                                                                   |                     |                           |                                   |                                                                                     |                             |
| 6 VAC/VDC                            | Model | M2BJ-B06                                                                          | M2BJ-B06A           | M2BJ-B06B                 | M2BJ-B06C                         | M2BJ-BH06D                                                                          | M2BJ-BH06E                  |
| 12 to 24 VAC/VDC                     |       | M2BJ-B24                                                                          | M2BJ-B24A           | M2BJ-B24B                 | M2BJ-B24C                         | M2BJ-BH24D                                                                          | M2BJ-BH24E                  |
| 12 to 24 VDC                         |       | M2BJ-B24-D                                                                        | ---                 | M2BJ-B24B-D               | ---                               | M2BJ-BH24D-D                                                                        | M2BJ-BH24E-D                |

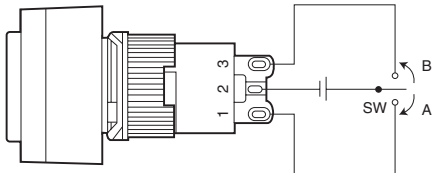
\*1.High-sound models incorporate an LED, which lights when the Buzzer sounds.  
\*2.Refer to “Short-circuiting Jumper (M2BJ-BTH)” on page 5 for the insert direction of the jumper.

External Signal Selection Model  
(M2BJ-BH24D-DA)

- An external signal selection model is also available. With this model, it is possible to switch between continuous and intermittent sound using an external signal instead of the jumper.

M2BJ-BH24D-DA

- SW:  
When A direction is ON (terminals 1, 2 ON): intermittent sound  
When B direction is ON (terminals 2, 3 ON): continuous sound



Note: 1. Ensure that voltage is not applied simultaneously between terminals 1, 2, and 3.  
2. Check the power supply polarity. Connecting with the polarity reversed may result in damage.

## Specifications

### Buzzer

| Model                                       |    | Standard-sound Models                                   |                               |                      |                               |
|---------------------------------------------|----|---------------------------------------------------------|-------------------------------|----------------------|-------------------------------|
| Item                                        |    | M2BJ-B06                                                | M2BJ-B06A                     | M2BJ-B06B            | M2BJ-B06C                     |
| Operating voltage                           |    | 6 VAC/VDC                                               |                               |                      |                               |
| Sound pressure (at 0.1 m and rated voltage) |    | Continuous sound: 80 dB (phons) min.                    |                               |                      |                               |
| Driving frequency                           |    | 2±0.5 kHz                                               |                               | 4±0.5 kHz            |                               |
| Intervals                                   |    | 190 times/minute±10%                                    | *2 Long:55 times/minute±10%   | 190 times/minute±10% | *4 Long:55 times/minute±10%   |
|                                             |    |                                                         | *1 Short:700 times/minute±10% |                      | *3 Short:700 times/minute±10% |
| Current consumption                         | DC | 7 mA max.                                               |                               | 20 mA max.           |                               |
|                                             | AC |                                                         |                               | 20 mA max.           |                               |
| Inrush current                              |    | 1 A max.                                                |                               |                      |                               |
| Life expectancy                             |    | 1,000 hours min.                                        |                               |                      |                               |
| Insulation resistance                       |    | 100 MΩ min. (between ground and current-carrying parts) |                               |                      |                               |
| Dielectric strength                         |    | 1,000 VAC for 1 minute (between grounds)                |                               |                      |                               |
| Ambient operating temperature               |    | -10°C to 55°C (no icing or condensation)                |                               |                      |                               |
| Ambient operating humidity                  |    | 35% to 85%RH                                            |                               |                      |                               |
| Ambient storage temperature                 |    | -25°C to 65°C (no icing or condensation)                |                               |                      |                               |
| Degree of protection                        |    | IP 40                                                   |                               |                      |                               |
| Weight                                      |    | Approx. 9 g                                             |                               |                      |                               |

| Model                                       |    | Standard-sound Models                                   |                             |                               |                      |                             |  |                      |             |
|---------------------------------------------|----|---------------------------------------------------------|-----------------------------|-------------------------------|----------------------|-----------------------------|--|----------------------|-------------|
| Item                                        |    | M2BJ-B24                                                | M2BJ-B24A                   |                               | M2BJ-B24B            | M2BJ-B24C                   |  | M2BJ-B24-D           | M2BJ-B24B-D |
| Operating voltage                           |    | 12 to 24 VAC/VDC                                        |                             |                               |                      |                             |  | 12 to 24 VDC         |             |
| Sound pressure (at 0.1 m and rated voltage) |    | Continuous sound: 80 dB (phons) min.                    |                             |                               |                      |                             |  |                      |             |
| Driving frequency                           |    | 2±0.5 kHz                                               |                             |                               | 4±0.5 kHz            |                             |  | 2±0.5 kHz            | 4±0.5 kHz   |
| Intervals                                   |    | 190 times/minute±10%                                    | *2 Long:55 times/minute±10% |                               | 190 times/minute±10% | *4 Long:55 times/minute±10% |  | 190 times/minute±10% |             |
|                                             |    | *1 Short:700 times/minute±10%                           |                             | *3 Short:700 times/minute±10% |                      |                             |  |                      |             |
| Current consumption                         | DC | 7 mA max.                                               |                             |                               | 20 mA max.           |                             |  | 7 mA max.            | 20 mA max.  |
|                                             | AC | 20 mA                                                   |                             |                               |                      |                             |  | ---                  |             |
| Inrush current                              |    | 1 A max.                                                |                             |                               |                      |                             |  | ---                  |             |
| Life expectancy                             |    | 1,000 hours min.                                        |                             |                               |                      |                             |  |                      |             |
| Insulation resistance                       |    | 100 MΩ min. (between ground and current-carrying parts) |                             |                               |                      |                             |  |                      |             |
| Dielectric strength                         |    | 1,000 VAC for 1 minute (between grounds)                |                             |                               |                      |                             |  |                      |             |
| Ambient operating temperature               |    | -10°C to 55°C (no icing or condensation)                |                             |                               |                      |                             |  |                      |             |
| Ambient operating humidity                  |    | 35% to 85%RH                                            |                             |                               |                      |                             |  |                      |             |
| Ambient storage temperature                 |    | -25°C to 65°C (no icing or condensation)                |                             |                               |                      |                             |  |                      |             |
| Degree of protection                        |    | IP 40                                                   |                             |                               |                      |                             |  |                      |             |
| Weight                                      |    | Approx. 9 g                                             |                             |                               |                      |                             |  |                      |             |

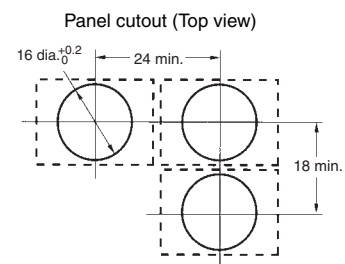
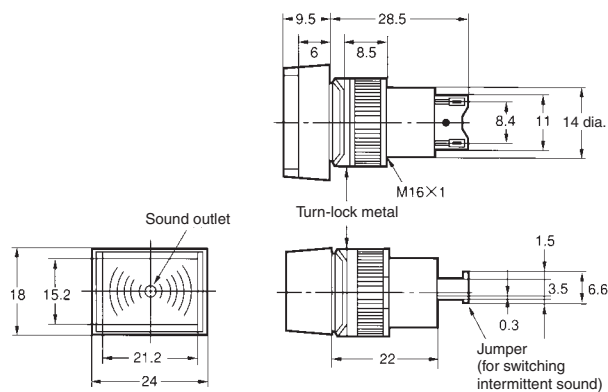
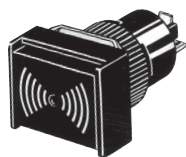
| Model                                                                                                                                                          |    | High-sound Models                                       |                                  |            |                        |                                  |              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------------------------------------------|----------------------------------|------------|------------------------|----------------------------------|--------------|
|                                                                                                                                                                |    | M2BJ-BH06D                                              | M2BJ-BH24D                       | M2BJ-BH06E | M2BJ-BH24E             | M2BJ-BH24D-D                     | M2BJ-BH24E-D |
| Operating voltage                                                                                                                                              |    | 6 VAC/VDC                                               | 12 to 24 VAC/VDC                 | 6 VAC/VDC  | 12 to 24 VAC/VDC       | 12 to 24 VDC                     |              |
| Sound pressure (The sound pressure can be adjusted. The figure for sound pressure given above is for measurement at a distance of 0.1 m at the rated voltage.) |    | 70 to 95 dB (phons)                                     |                                  |            |                        |                                  |              |
| Driving frequency                                                                                                                                              |    | 3±0.5 kHz                                               |                                  |            |                        |                                  |              |
| Intervals                                                                                                                                                      |    | Approx. 190 times/min.                                  | *6 Long: Approx. 55 times/min.   |            | Approx. 190 times/min. | *6 Long: Approx. 55 times/min.   |              |
|                                                                                                                                                                |    |                                                         | *5 Short: Approx. 700 times/min. |            |                        | *5 Short: Approx. 700 times/min. |              |
| Current consumption                                                                                                                                            | DC | 50 mA max.                                              |                                  |            |                        |                                  |              |
|                                                                                                                                                                | AC | 100 mA max.                                             |                                  |            |                        | ---                              |              |
| Inrush current                                                                                                                                                 |    | 1 A max.                                                |                                  |            |                        | ---                              |              |
| Life expectancy                                                                                                                                                |    | 1,000 hours min.                                        |                                  |            |                        |                                  |              |
| Insulation resistance                                                                                                                                          |    | 100 MΩ min. (between ground and current-carrying parts) |                                  |            |                        |                                  |              |
| Dielectric strength                                                                                                                                            |    | 1,000 VAC for 1 minute (between grounds)                |                                  |            |                        |                                  |              |
| Ambient operating temperature                                                                                                                                  |    | -10°C to 55°C (no icing or condensation)                |                                  |            |                        |                                  |              |
| Ambient operating humidity                                                                                                                                     |    | 35% to 85%RH                                            |                                  |            |                        |                                  |              |
| Ambient storage temperature                                                                                                                                    |    | -25°C to 65°C (no icing or condensation)                |                                  |            |                        |                                  |              |
| Degree of protection                                                                                                                                           |    | IP 40                                                   |                                  |            |                        |                                  |              |
| Weight                                                                                                                                                         |    | Approx. 12 g                                            |                                  |            |                        |                                  |              |

\*Tone

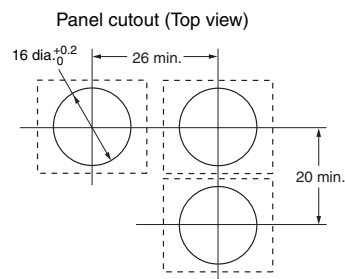
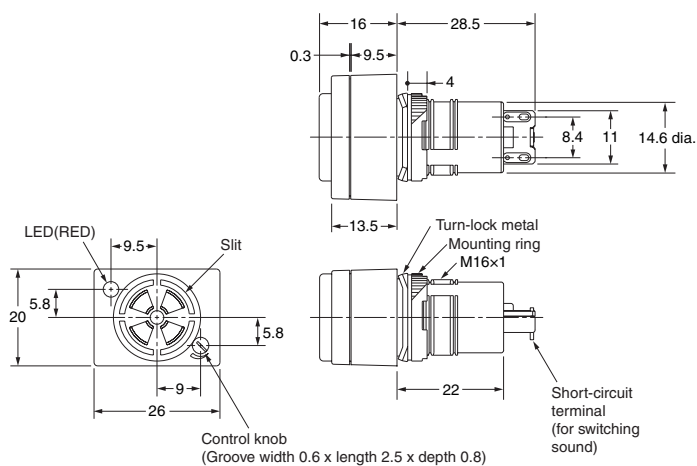
|    |                 |                         |                            |
|----|-----------------|-------------------------|----------------------------|
| *1 | Standard volume | High volume             | Bird cry                   |
| *2 |                 |                         | Telephone busy signal      |
| *3 |                 | Continuous (high pitch) | Short beeps                |
| *4 |                 |                         | Long beeps                 |
| *5 | High volume     | Intermittent            | Alternating high-low pitch |
| *6 |                 |                         | Long beeps                 |

## Dimensions

### Standard-sound Models M2BJ-B



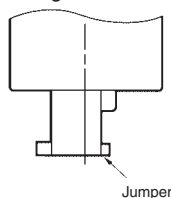
### High-sound Models M2BJ-BH



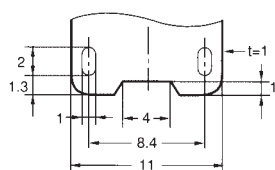
Note: The LED lights while the sound is produced. For intermittent sound, the LED flashes synchronized with the sound.

## Contact Form

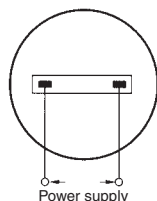
All Models  
(Standard and High-sound Models)



Terminal Hole Dimensions



Terminal Arrangement  
(Bottom view)



Note: There is no +/- polarity.

## Safety Precautions

Refer to *Safety Precautions for All Pushbutton Switches*.

### Precautions for Correct Use

#### Application Precautions

- When power is supplied, there is an inrush current of up to 1 A. Confirm that this will not adversely affect operation or damage any devices before using the M2BJ in application. There is no inrush current with DC-only models (M2BJ-□□□□-D).
- With models that can use both AC and DC, residual energy in the internal capacitor may cause residual sound.

#### Wiring

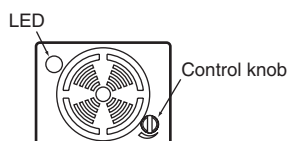
- Perform soldering promptly and correctly at a temperature of 350°C within 3 seconds. Wait for one minute after soldering before exerting any external force on the solder.
- If flux is required, use non-corrosive rosin liquid. Ensure that the flux does not penetrate the inside of the case.
- In order to improve the reliability of the soldering and to prevent pattern burnout, loop the wire through the terminal hole before soldering.
- In order to fit the terminal holes, use lead wires with a nominal cross sectional area of 0.25 mm<sup>2</sup> max.

#### Operating Environment

- Do not use the Buzzer in environments where foreign substances may enter the sound outlet. Otherwise, the Buzzer may not sound.

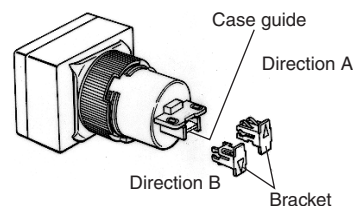
#### Volume Adjustment Mechanism (M2BJ-BH Only)

- Adjust the volume by turning the control knob on the face of the Buzzer using a screwdriver. Turn to the right to increase the volume and turn to the left to decrease the volume.
- Turn the control knob with a torque of 0.98 to 2.94 mN·m.

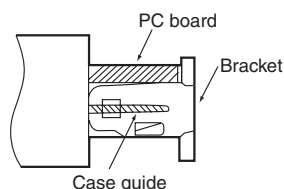


#### Short-circuiting Jumper (M2BJ-BTH)

- The Buzzer sounds continuously or intermittently depending on how the short-circuiting bracket is attached to the case guide. When the bracket is attached with the triangle on it facing direction A (PC board side), the Buzzer sounds intermittently.
- To produce continuous sounds, attach the bracket to the case guide so that the triangle on the bracket faces direction B.
- The bracket is set in direction A when ship the product. If the bracket becomes lost, contact your OMRON representative. The model number to order is M2BJ-BTH.



#### Short-circuit Bracket Mounting Location



## Read and Understand This Catalog

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- Nuclear energy control systems, combustion systems, railroad systems, aviation systems, medical equipment, amusement machines, vehicles, safety equipment, and installations subject to separate industry or government regulations.
- Systems, machines, and equipment that could present a risk to life or property.

Please know and observe all prohibitions of use applicable to the products.

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### DIMENSIONS AND WEIGHTS

Dimensions and weights are nominal and are not to be used for manufacturing purposes, even when tolerances are shown.

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2008.12

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Industrial Automation Company

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- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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