


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

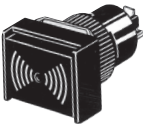

- Lineup includes standard-volume models (80 phons, constant) and high-volume models (70 to 95 phons, variable). Intermittent or continuous sound can be selected.





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

List of Models

Buzzer

| Appearance | Model |
|---|---------|
| Rectangular standard-volume model  | M2BJ-B |
| Rectangular high-volume model  | 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) | Intermittent (short) |
| 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 |

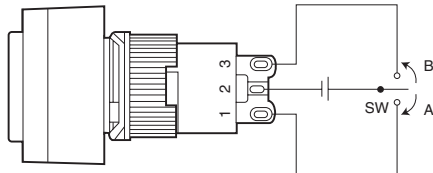
*1. High-sound models incorporate an LED, which lights when the Buzzer sounds.
 *2. Refer to "Short-circuiting Jumper (M2BJ-BTH)" on page 5 for the insert direction of the jumper.

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

| Item | Model | Standard-sound Models | | | |
|---|-------|---|--|----------------------|--|
| | | 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% *1 Short:700 times/minute±10% | 190 times/minute±10% | *4 Long:55 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 | | | |

| Item | Model | Standard-sound Models | | | | | |
|---|-------|---|--|----------------------|--|----------------------|-------------|
| | | 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% *1 Short:700 times/minute±10% | 190 times/minute±10% | *4 Long:55 times/minute±10% *3 Short:700 times/minute±10% | 190 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 | | | | | |

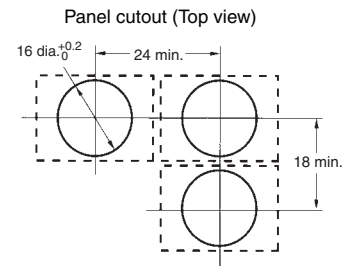
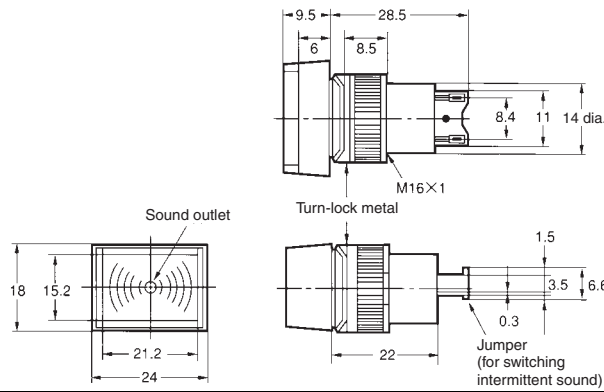
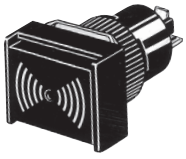
| Item | Model | High-sound Models | | | | | |
|--|-------|---|------------------|--|------------------|------------------------|--|
| | | M2BJ-BH06D | M2BJ-BH24D | M2BJ-BH06E | M2BJ-BH24E | M2BJ-BH24D-D | M2BJ-BH24E-D |
| Operating voltage | | 6 VAC/VDC | 12 to 24 VAC/VDC | 6 VAC/VDC | 12 to 24 VAC/VDC | 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. *5 Short: Approx. 700 times/min. | | Approx. 190 times/min. | *6 Long: Approx. 55 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

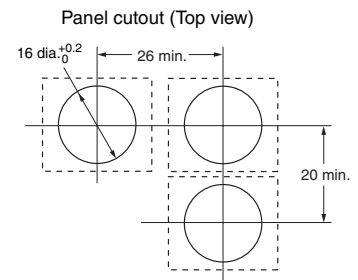
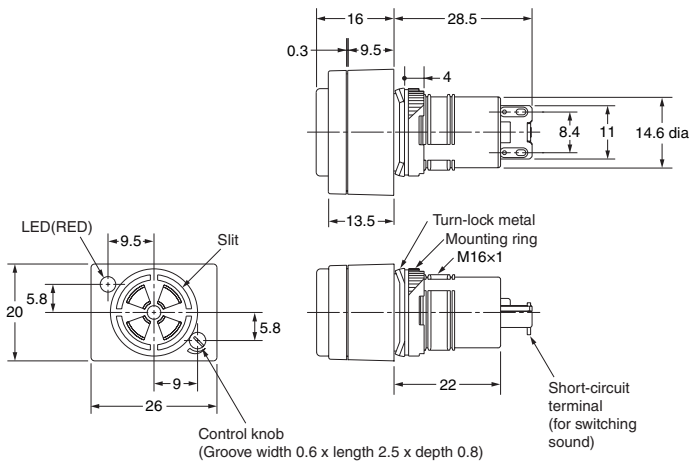
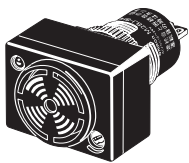
| | | | |
|----|-----------------|-------------------------|----------------------------|
| *1 | Standard volume | High volume | Bird cry |
| *2 | | | Telephone busy signal |
| *3 | | Continuous (high pitch) | Short beeps |
| *4 | | | Long beeps |
| *5 | High volume | Intermittent | Alternating high-low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

Dimensions

Standard-sound Models M2BJ-B



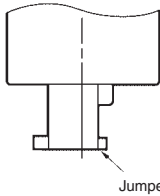
High-sound Models M2BJ-BH



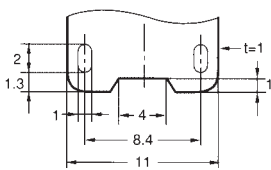
Note: The LED lights while the sound is produced.
For intermittent sound, the LED flashes
synchronized with the sound.

Contact Form

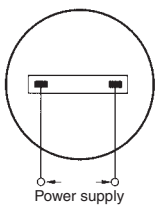
All Models
(Standard and High-sound Models)



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

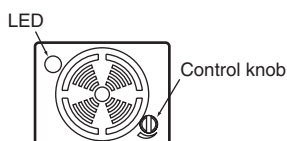
- Perform soldering promptly and correctly at a temperature of 350°C within 3 seconds. Wait for one minute after soldering before exerting any external force on the solder.
- If flux is required, use non-corrosive rosin liquid. Ensure that the flux does not penetrate the inside of the case.
- In order 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 mm² max.

Operating Environment

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

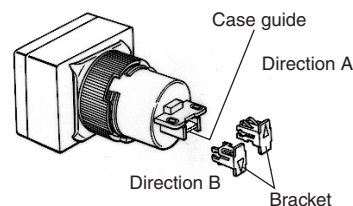
Volume Adjustment Mechanism (M2BJ-BH Only)

- 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.

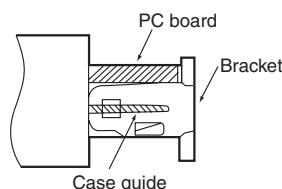


Short-circuiting Jumper (M2BJ-BTH)

- 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



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2008.12

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