

MR(36° Step)

Miniature Rotary Switches

RoHS Compliant



Features

1. Diallyl phthalate resin (**UL94V-O**) which has excellent resistance to arc and heat, and superb insulation quality is employed.
2. The terminals are molded in to ensure the permanent seal structure that completely prevents flux entry through the terminals.
3. Adoption of the wiping mechanism for the contacting area to ensure contacting stability and reliability.
4. The variable stopper is provided to allow free selection of the desired number of positions (excluding **MR4-2** type).

Specifications

| Contact plating | | Silver plated | Gold plated |
|-----------------------------|------|-----------------------|----------------------------|
| Rating | Max. | 500mA 125VAC | |
| | Min. | 10mA 5VAC/DC | 5mA 6VDC |
| Initial contact resistance | | 10mΩ max. (1A 2~4VDC) | 20mΩ max. (1.5mA 200μ VAC) |
| Dielectric strength | | 1,000VAC 1minute | |
| Insulation resistance | | 100MΩ min. | (500VDC) |
| Electrical life | | 10,000 cycles | |
| Operating force | | 9.8N·cm max. | |
| Stopper strength | | 19.6N·cm | |
| Operating temperature range | | -20~+85°C | |
| Storage temperature range | | -40~+85°C | |

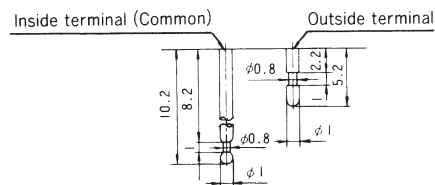
Part Numbering

MR 1 - 10 G - Z

Series code Number of poles Number of position Contact plating

| | | | | | |
|----------|--------|-----------|------------|----------|---------------|
| 1 | 1pole | 10 | 10position | None | Silver plated |
| 2 | 2poles | 5 | 5position | G | Gold plated |
| 3 | 3poles | 3 | 3position | | |
| 4 | 4poles | 2 | 2position | | |

Terminal Styles



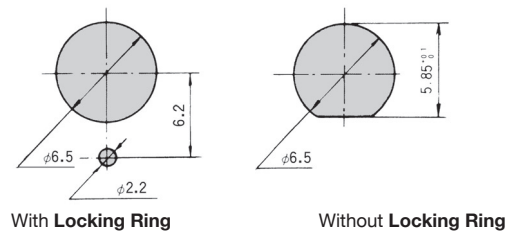
Standard Accessories

《Supplied with switch》

| Part name | Hex Nut | Lockwasher | Locking Ring | stopper |
|------------|---------------|--------------|--------------|--------------|
| Part No. | 140008010241 | 140008030051 | 140008020066 | 140000600357 |
| Dimensions | | | | |
| Plating | Nickel plated | Zinc plated | Zinc plated | |

Panel Cut-Out Dimensions

Panel thickness : 2 mm max.



● A wide variety of optional accessories are available. Specify the part number from **Optional Accessories** Table on page 542.

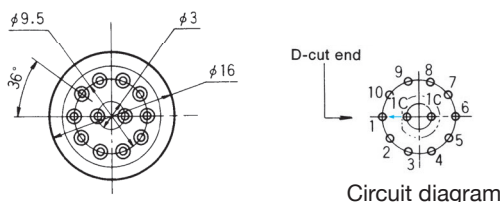
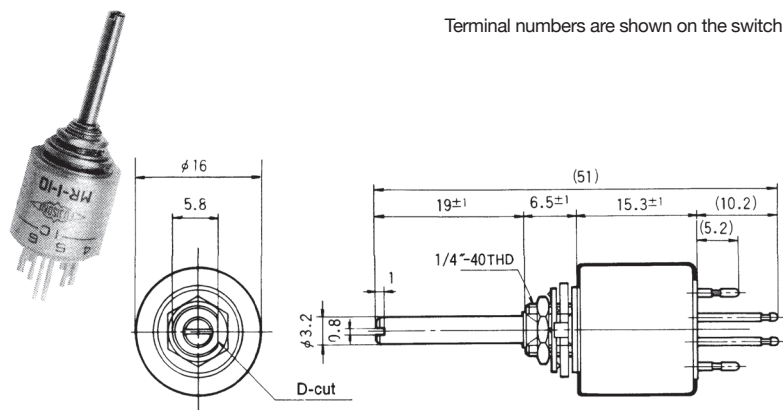
● For **Soldering Specifications** and **Flux Cleaning**, see page 547.

MR1-10-Z 1-pole 10-position

Terminal numbers are shown on the switch.

| Part No. | Number of steps | Step angle |
|------------|------------------------------------|------------|
| ☆MR1-10-Z | 9 Repetition of from 1 to 10 | 36° |
| ★MR1-10G-Z | | |

From 2 to 9-position can be selected by variable stopper.



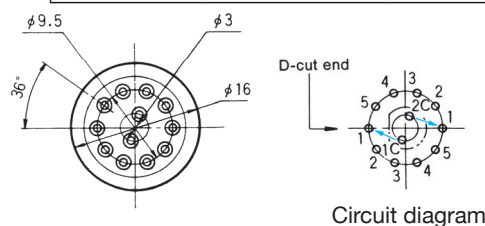
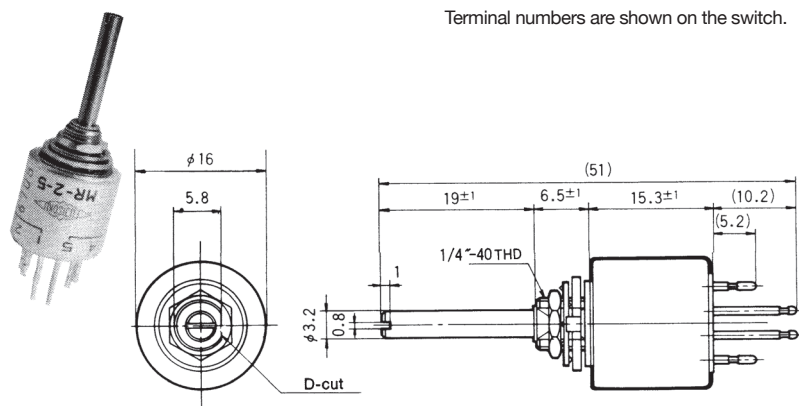
※Two Common terminals (1C) are internally short-circuited. Select either one depending on wiring arrangements.

MR2-5-Z 2-pole 5-position

Terminal numbers are shown on the switch.

| Part No. | Number of steps | Step angle |
|-----------|-----------------------------------|------------|
| ☆MR2-5-Z | 4 Repetition of from 1 to 5 | 36° |
| ★MR2-5G-Z | | |

From 2 to 4-position can be selected by variable stopper.

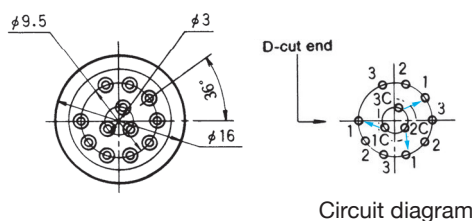
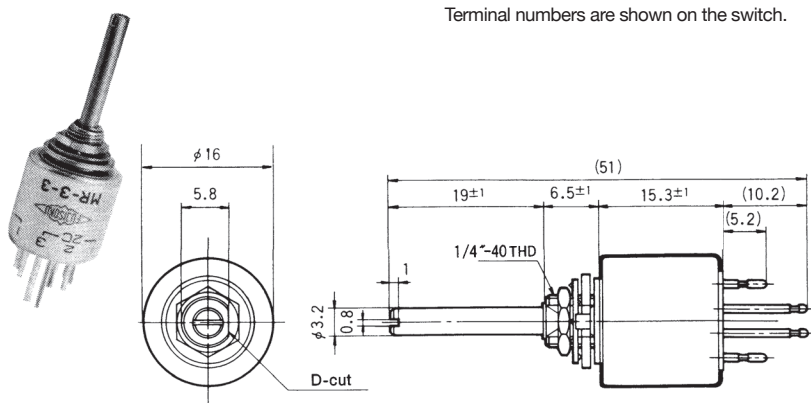


MR3-3-Z 3-pole 3-position

Terminal numbers are shown on the switch.

| Part No. | Number of steps | Step angle |
|-----------|-----------------------------------|------------|
| ☆MR3-3-Z | 2 Repetition of from 1 to 3 | 36° |
| ★MR3-3G-Z | | |

2-position can be selected by variable stopper.



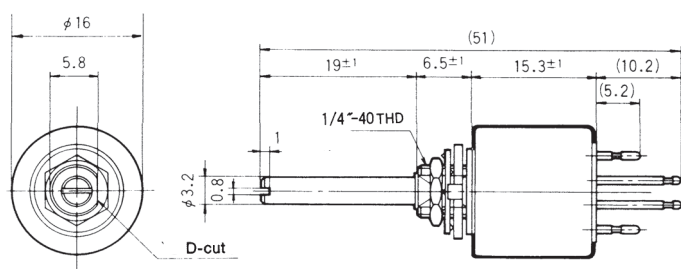
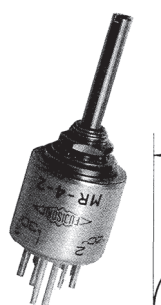
●The circuit diagrams show the switches as viewed from the terminal side with the shaft fully turned in the counter-clockwise direction.

★ : Made to order products. ☆ : Semi-standard products.

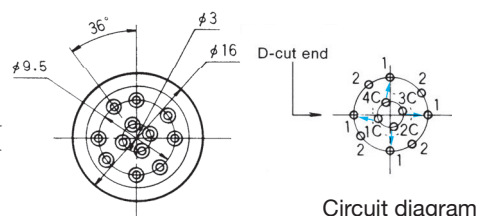
MR(36° step)

MR4-2-Z 4-pole 2-position

Terminal numbers are shown on the switch.

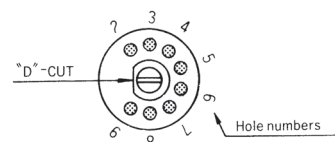
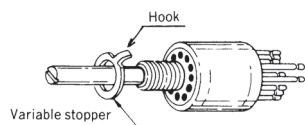


| Part No. | Number of steps | Step angle |
|------------------------------|-----------------------------------|------------|
| ★MR4-2-Z | 1 Repetition of from 1 to 2 | 36° |
| ★MR4-2G-Z | | |
| No variable stopper is used. | | |



●The circuit diagrams show the switches as viewed from the terminal side with the shaft fully turned in the counter-clockwise direction.

How to Use Variable Stopper



1. The required number of positions can be obtained by fully turning the shaft in the counter-clockwise direction and inserting the stopper hook into the select hole of the desired contact number.
2. Do not use the variable stopper when all contacts are used.

[Example]
 Select Hole No. 5 to set 5 positions with MR1-10-Z.
 Select Hole No. 3 to set 3 positions with MR2-5-Z.
 Select Hole No. 2 to set 2 positions with MR3-3-Z.

Optional Accessories (MR, MRE series)

《Sold separately》

| Part Name | ツマミ/Knob | | | | |
|---------------|----------------|-------------|-------------|-------------|-------|
| | FB形 | | FN形 | | |
| Dimensions | | | | | |
| Part No. | 14000050598 | 14000051012 | 14000050956 | 14000050601 | |
| Color | Body | Silver | Black | Silver | Black |
| | Indicator Line | Black | White | Black | White |
| Body Material | Aluminium | | Aluminium | | |

●For the hexagon wrench for FB/FN types, choose the M4 wrench (2mm) available on the market.