

# General-purpose Relay

# MY

## Versatile, Multi-featured, Miniature Power Relay for Sequence Control and Power Switching Applications

- Models with lockable test buttons now available.
- Multiple features available, including operation indicators (mechanical and LED indicators), lockable test button, built-in diode and CR (surge suppression), bifurcated contacts, etc.
- Environment-friendly cadmium-free contacts.
- Wide range of Sockets (PY, PYF Series) and optional parts.
- Max. Switching Current: 2-pole: 10 A, 4-pole: 5 A
- Provided with nameplate.
- RoHS Complaint.



## Ordering Information

### ■ Relays

#### Standard Coil Polarity

| Type                                             | Contact form      | Model                           |                                             |                       |
|--------------------------------------------------|-------------------|---------------------------------|---------------------------------------------|-----------------------|
|                                                  |                   | Plug-in socket/solder terminals |                                             |                       |
|                                                  |                   | Standard with LED indicator     | With LED indicator and lockable test button | Without LED indicator |
| Standard                                         | DPDT              | MY2N                            | MY2IN                                       | MY2                   |
|                                                  | 4PDT              | MY4N                            | MY4IN                                       | MY4                   |
|                                                  | 4PDT (bifurcated) | MY4ZN                           | MY4ZIN                                      | MY4Z                  |
| With built-in diode (DC only)                    | DPDT              | MY2N-D2                         | MY2IN-D2                                    | ---                   |
|                                                  | 4PDT              | MY4N-D2                         | MY4IN-D2                                    | ---                   |
|                                                  | 4PDT (bifurcated) | MY4ZN-D2                        | MY4ZIN-D2                                   | ---                   |
| With built-in CR (220/240 VAC, 110/120 VAC only) | DPDT              | MY2N-CR                         | MY2IN-CR                                    | ---                   |
|                                                  | 4PDT              | MY4N-CR                         | MY4IN-CR                                    | ---                   |
|                                                  | 4PDT (bifurcated) | MY4ZN-CR                        | MY4ZIN-CR                                   | ---                   |

#### Reverse Coil Polarity

| Type                          | Contact form      | Model                           |                                             |
|-------------------------------|-------------------|---------------------------------|---------------------------------------------|
|                               |                   | Plug-in socket/solder terminals |                                             |
|                               |                   | With LED indicator              | With LED indicator and lockable test button |
| Standard (DC only)            | DPDT              | MY2N1                           | MY2IN1                                      |
|                               | 4PDT              | MY4N1                           | MY4IN1                                      |
|                               | 4PDT (bifurcated) | MY4ZN1                          | MY4ZIN1                                     |
| With built-in diode (DC only) | DPDT              | MY2N1-D2                        | MY2IN1-D2                                   |
|                               | 4PDT              | MY4N1-D2                        | MY4IN1-D2                                   |
|                               | 4PDT (bifurcated) | MY4ZN1-D2                       | MY4ZIN1-D2                                  |

**Note:** 1. When ordering, add the rated coil voltage to the model number(s), followed by "(S)". Rated coil voltages are given in the coil ratings table.  
Example: MY2 AC12(S)

Rated coil voltage

2. Arc barrier standard on all four-pole relays.
3. Other models also available, such as, three-pole versions, flangemount, PCB, etc. Contact your Omron Representative for details.

# Specifications

## ■ Coil Ratings

| Rated voltage |           | Rated current |              | Coil resistance | Inductance (reference value) |         | Must operate | Must release | Max. voltage | Power consumption (approx.) |
|---------------|-----------|---------------|--------------|-----------------|------------------------------|---------|--------------|--------------|--------------|-----------------------------|
|               |           | 50 Hz         | 60 Hz        |                 | Arm. OFF                     | Arm. ON |              |              |              |                             |
| AC            | 6 V*      | 214.1 mA      | 183 mA       | 12.2 Ω          | 0.04 H                       | 0.08 H  | 80% max.     | 30% min.     | 110%         | 1.0 to 1.2 VA (60 Hz)       |
|               | 12 V      | 106.5 mA      | 91 mA        | 46 Ω            | 0.17 H                       | 0.33 H  |              |              |              |                             |
|               | 24 V      | 53.8 mA       | 46 mA        | 180 Ω           | 0.69 H                       | 1.30 H  |              |              |              |                             |
|               | 48/50 V*  | 24.7/25.7 mA  | 21.1/22.0 mA | 788 Ω           | 3.22 H                       | 5.66 H  |              |              |              |                             |
|               | 110/120 V | 9.9/10.8 mA   | 8.4/9.2 mA   | 4,430 Ω         | 19.20 H                      | 32.1 H  |              |              |              |                             |
|               | 220/240 V | 4.8/5.3 mA    | 4.2/4.6 mA   | 18,790 Ω        | 83.50 H                      | 136.4 H |              |              |              |                             |
| DC            | 6 V*      | 151 mA        |              | 39.8 Ω          | 0.17 H                       | 0.33 H  | 10% min.     |              |              | 0.9 W                       |
|               | 12 V      | 75 mA         |              | 160 Ω           | 0.73 H                       | 1.37 H  |              |              |              |                             |
|               | 24 V      | 37.7 mA       |              | 636 Ω           | 3.20 H                       | 5.72 H  |              |              |              |                             |
|               | 48 V*     | 18.8 mA       |              | 2,560 Ω         | 10.60 H                      | 21.0 H  |              |              |              |                             |
|               | 100/110 V | 9.0/9.9 mA    |              | 11,100 Ω        | 45.60 H                      | 86.2 H  |              |              |              |                             |
|               |           |               |              |                 |                              |         |              |              |              |                             |

**Note:** 1. The rated current and coil resistance are measured at a coil temperature of 23°C with tolerances of +15%/–20% for rated currents and ±15% for DC coil resistance.

2. Performance characteristic data are measured at a coil temperature of 23°C.

3. AC coil resistance and impedance are provided as reference values (at 60 Hz).

4. Power consumption drop was measured for the above data. When driving transistors, check leakage current and connect a bleeder resistor if required.

5. Rated voltage denoted by "\*" will be manufactured upon request. Ask your OMRON representative.

## ■ Contact Ratings

| Item                    | 2-pole                      |                                         | 4-pole                      |                                         | 4-pole (bifurcated)         |                                         |
|-------------------------|-----------------------------|-----------------------------------------|-----------------------------|-----------------------------------------|-----------------------------|-----------------------------------------|
|                         | Resistive load (cosφ = 1)   | Inductive load (cosφ = 0.4, L/R = 7 ms) | Resistive load (cosφ = 1)   | Inductive load (cosφ = 0.4, L/R = 7 ms) | Resistive load (cosφ = 1)   | Inductive load (cosφ = 0.4, L/R = 7 ms) |
| Rated load              | 5 A, 250 VAC<br>5 A, 30 VDC | 2 A, 250 VAC<br>2 A, 30 VDC             | 3 A, 250 VAC<br>3 A, 30 VDC | 0.8 A, 250 VAC<br>1.5 A, 30 VDC         | 3 A, 250 VAC<br>3 A, 30 VDC | 0.8 A, 250 VAC<br>1.5 A, 30 VDC         |
| Carry current           | 10 A (see note)             |                                         | 5 A (see note)              |                                         |                             |                                         |
| Max. switching voltage  | 250 VAC<br>125 VDC          |                                         | 250 VAC<br>125 VDC          |                                         |                             |                                         |
| Max. switching current  | 10 A                        |                                         | 5 A                         |                                         |                             |                                         |
| Max. switching capacity | 2,500 VA<br>300 W           | 1,250 VA<br>300 W                       | 1,250 VA<br>150 W           | 500 VA<br>150 W                         | 1,250 VA<br>150 W           | 500 VA<br>150 W                         |
| Min. permissible load*  | 5 VDC, 1 mA                 |                                         | 1 VDC, 1 mA                 |                                         | 1 VDC, 100 μA               |                                         |

\* Reference value.

**Note:** Do not exceed the carry current of a Socket in use.