

General Purpose Relay MK

- Exceptionally reliable general purpose relay.
- Long life (minimum 100,000 electrical operations) assured by silver contacts.
- Built-in operation indicator (mechanical, LED), diode surge suppression, Varistor surge suppression.
- The contact operation can be easily checked by mechanical indicator and/or push-to-test button options.
- Conforms to CENELEC standards.
- VDE approved versions available.



Ordering Information

To Order: Select the part number and add the desired coil voltage rating (e.g., MK3P5-S-AC120).

| Type | Terminal | Coil | Contact form | Model | |
|----------------------------|----------|-------|--------------|----------------------|--|
| | | | | Mechanical indicator | Mechanical indicator & push-to-test button |
| Standard | Plug-in | AC/DC | DPDT | MK2P-I | MK2P-S |
| | | | 3PDT | MK3P-5-I | MK3P-5-S |
| LED indicator | | | DPDT | MK2PN-I | MK2PN-S |
| | | | 3PDT | MK3PN-5-I | MK3PN-5-S |
| LED indicator and diode | | DC | DPDT | MK2PND-I | MK2PND-S |
| | | | 3PDT | MK3PND-5-I | MK3PND-5-S |
| LED indicator and varistor | | AC | DPDT | MK2PNV-I | MK2PNV-S |
| | | | 3PDT | MK3PNV-5-I | MK3PNV-5-S |
| Diode | | DC | DPDT | MK2PD-I | MK2PD-S |
| | | | 3PDT | MK3PD-5-I | MK3PD-5-S |
| Varistor | | AC | DPDT | MK2PV-I | MK2PV-S |
| | | | 3PDT | MK3PV-5-I | MK3PV-5-S |

- Note:** 1. Reverse polarity versions available on DC coil types. Consult your OMRON representative for further information.
 2. VDE approved versions are available. Consult your OMRON representative for further information.

■ Accessories (Order separately)

To Order: Select the appropriate part numbers for sockets, clips, and mounting tracks (if required) from the available types chart.

Track Mounted Sockets

| Relay type | Model | | |
|--------------|----------|----------------------|---|
| | Socket | Relay hold-down clip | Mounting track/end plate |
| SPDT DPDT | PF083A-E | PFC-A1 | PFP-100N or PFP-50N and PFP-M (end plate) |
| 3PDT | PF113A-E | PFC-A1 | PFP-100N or PFP-50N and PFP-M (end plate) |

■ Accessories (continued)

Back Connecting Sockets

| Relay type | Model | |
|------------|---------|----------------------|
| | Socket | Relay hold-down clip |
| SPDT | PL08 | PLC-E |
| DPDT | PLE08-0 | PLC-10 |
| | PL08-Q | PLC-E |
| 3PDT | PL11 | PLC-E |
| | PLE11-0 | PLC-10 |
| | PL11-Q | PLC-E |

Specifications

■ Contact Data

| Load | Resistive load (p.f. = 1) | | Inductive load (p.f. = 0.4) |
|-------------------------|-----------------------------------|--|-----------------------------|
| | 2 Pole | 3 Pole | |
| Rated load | 10 A at 250 VAC 10 A at 28 VDC | 10 A at 120 VAC 10 A at 28 VDC 10 A at 250 VAC | 7 A at 250 VAC |
| Contact material | Ag | | |
| Carry current | 10 A | | |
| Max. operating voltage | 250 VAC, 250 VDC | | |
| Max. operating current | 10 A | | |
| Max. switching capacity | 2,500 VA 280 W | 2,500 VA/1,250 VA (NO/NC contacts) 280 W | 1,750 VA |
| Min. permissible load | 10 mA at 1 VDC | | |

■ Coil Data

AC

| Rated voltage (VAC) | Rated current (mA) (at 60 Hz) | Coil resistance (Ω) | Coil inductance (Ref. value) (H) | | Pick-up voltage | Dropout voltage | Maximum voltage | Power consumption (mW) |
|---------------------|-------------------------------|---------------------|----------------------------------|-------------|-------------------------------|--|-----------------|--|
| | | | Armature OFF | Armature ON | | | | |
| 6 | 360 | 3.9 | 0.0423 | 0.0201 | 80% max. Approx. 2.7 VA | 30% min. (at 60 Hz) 25% min. (at 50 Hz) | 110% max. | Approx. 2.3 VA (at 60 Hz) Approx. 2.7 VA (at 50 Hz) |
| 12 | 180 | 16.3 | 0.3270 | 0.1666 | | | | |
| 24 | 88.0 | 68.0 | 0.6940 | 0.3760 | | | | |
| 50 | 39.0 | 338 | 3.195 | 1.530 | | | | |
| 110 | 21.0 | 1240 | 13.45 | 7.32 | | | | |
| 120 | 18.0 | 1578 | 15.04 | 7.19 | | | | |
| 220 | 11.0 | 5090 | 49.73 | 27.02 | | | | |
| 240 | 9.2 | 6737 | 58.62 | 32.07 | | | | |

DC

| Rated voltage (VDC) | Rated current (mA) (at 60 Hz) | Coil resistance (Ω) | Coil inductance (Ref. value) (H) | | Pick-up voltage | Dropout voltage | Maximum voltage | Power consumption (mW) |
|---------------------|-------------------------------|---------------------|----------------------------------|-------------|-------------------------------|-----------------|-----------------|------------------------|
| | | | Armature OFF | Armature ON | | | | |
| 6 | 255 | 23.5 | 0.206 | 0.106 | 80% max. Approx. 2.7 VA | 15% min. | 110% max. | Approx. 1.5 W |
| 12 | 126 | 95 | 0.963 | 0.449 | | | | |
| 24 | 56 | 430 | 4.915 | 2.478 | | | | |
| 48 | 29.5 | 1630 | 16.685 | 10.487 | | | | |
| 110 | 15.1 | 7300 | 80.2 | 42.6 | | | | |

- Note:**
1. The rated current and coil resistance are measured at a coil temperature of 23°C (73°F) with a tolerance of ±15% for DC rated current and +15%, -20% for AC rated current.
 2. The rated current is reference value.
 3. Performance characteristic data are measured at a coil temperature of 23°C (73°F).
 4. For models with the LED indicator built-in, add an LED current of approximately 0 thru 5 mA to the rated current.