



Features

- 70A switching capability.
- Optional Contact arrangement.
- Plug-in or PC board terminals.
- Extended operation range.
- Optional mounting bracket.

Typical Applications

Fog lamp & headlight control, Rear window defogger, Air-conditioning, Power distribution, Fuel pump control, ABS, Traction control system, Cooling fan control, Hearing control, Power supply management system, Battery disconnection device

CHARACTERISTICS

| | | | |
|----------------------------------|----------------------------|----------------------|---------------------------------|
| Contact Arrangement | 1A,1C | Coil power | 1.6W |
| Contact voltage drop | Typ.30mV (at 10A 13.5 VDC) | Coil Voltage | 6VDC,12VDC,24VDC |
| | Max.50mV (at 10A 13.5 VDC) | Operate time | Max.: 10ms |
| Initial contact resistance | Max.50mΩ (at 1A 24 VDC) | Release time | Max.: 7ms |
| Electrical life | 1.5×10 ⁵ ops | Ambient temp. | -40℃~ +125℃ |
| Mechanical life | 1×10 ⁷ ops | Vibration Resistance | 10Hz~500Hz 176m/s ² |
| Max. Carry current | 70A(NO)/40A(NC) | Shock resistance | Functional 98m/s ² |
| Max. Make current ⁽¹⁾ | 70A(NO)/30A(NC) | | Destructive 294m/s ³ |
| Min. Applicable load | 6VDC,1A | Termination | Plug-in & PCB |
| Insulation resistance | 100MΩ,500VDC | Weight | Approx.37g |
| Dielectric Strength | 550VAC 1min | Construction | Dust covered |

Note(1): Inrush current for lamp load

CONTACT DATA

| Nominal Voltage VDC | Load Version | | Carry current(A) | | | Electrical life (ops) | Contact Material | Testing Ambient temp. | Contact Wiring Diagram |
|---------------------|-------------------|----|------------------|------|-----------|-----------------------|---|-----------------------|------------------------|
| | | | 1C | | 1A | | | | |
| | | | N.O. | N.C. | N.O. | | | | |
| 12 VDC | Res. 14VDC on/off | | 70 | 30 | 70 | 1×10 ⁵ | AgSnO ₂ In ₂ O ₃ | 23℃ | Diagram 1 |
| | 13VDC Lamp | on | 4×H4/60 W | — | 4×H4/60 W | 1×10 ⁵ | AgSnO ₂ In ₂ O ₃ | 23℃ | Diagram 2 |
| off | | — | | | | | | | |
| 24 VDC | Res. 27VDC on/off | | 40 | 20 | 40 | 1×10 ⁵ | AgSnO ₂ In ₂ O ₃ | 23℃ | Diagram 1 |
| | 27VDC Lamp | on | 4×H4/60 W | — | 4×H4/60 W | 1×10 ⁵ | AgSnO ₂ In ₂ O ₃ | 23℃ | Diagram 2 |
| off | | — | | | | | | | |

Contact Wiring Diagram

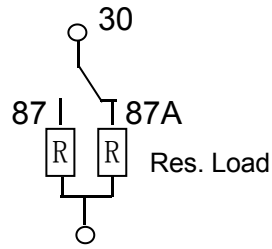


Diagram 1

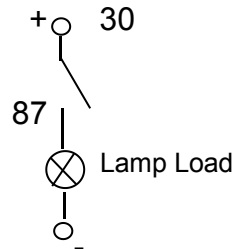


Diagram 2

COIL DATA

23°C

| Nominal Voltage VDC | Max. Allowable Overdrive VDC | | Pick-up Voltage VDC | Drop-out Voltage VDC | Coil Resistance Ω ±10% | Parallel Resistance Ω |
|---------------------|------------------------------|------|---------------------|----------------------|------------------------|-----------------------|
| | 23°C | 85°C | | | | |
| 6 | 10.1 | 7.9 | <3.6 | >0.6 | 22 | — |
| 6 | 10.1 | 7.9 | <3.6 | >0.6 | 22 | 180 |
| 12 | 20.2 | 15.7 | <7.2 | >1.2 | 85 | — |
| 12 | 20.2 | 15.7 | <7.2 | >1.2 | 85 | 680 |
| 24 | 40.5 | 31.5 | <14.4 | >2.4 | 350 | — |
| 24 | 40.5 | 31.5 | <14.4 | >2.4 | 350 | 2700 |

ORDERING INFORMATION

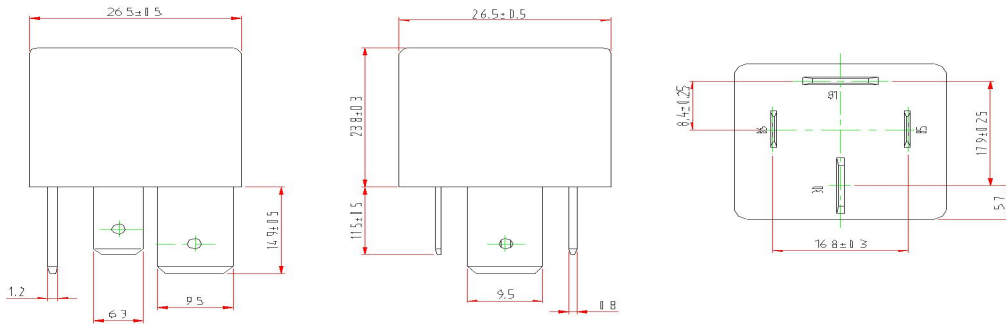
| | | | | | | | |
|---------------------------------------|--|-------------|-----------|----------|----------|-----------|------------|
| | M7/ | 012- | 1H | 1 | G | R- | XXX |
| Relay Type | M7:QC Terminal M7P:PCB Terminal | | | | | | |
| Coil voltage | 006:6VDC 012:12VDC 024:24VDC | | | | | | |
| Contact arrangement | 1H: 1 Form A 1Z: 1 Form C | | | | | | |
| Version | 1: QC Terminal 2: QC Terminal & Metal Shrouded | | | | | | |
| Contact Material | G:AgSnO ₂ In ₂ O ₃ S: Special AgSnO ₂ In ₂ O ₃ | | | | | | |
| Parallel resistor | Nil: Without resistor R: With resistor D:Parallel diode (D1:anode on #86,D2:anode on #85) | | | | | | |
| Customer special request code: | | | | | | | |

Outline Dimensions

单位: mm

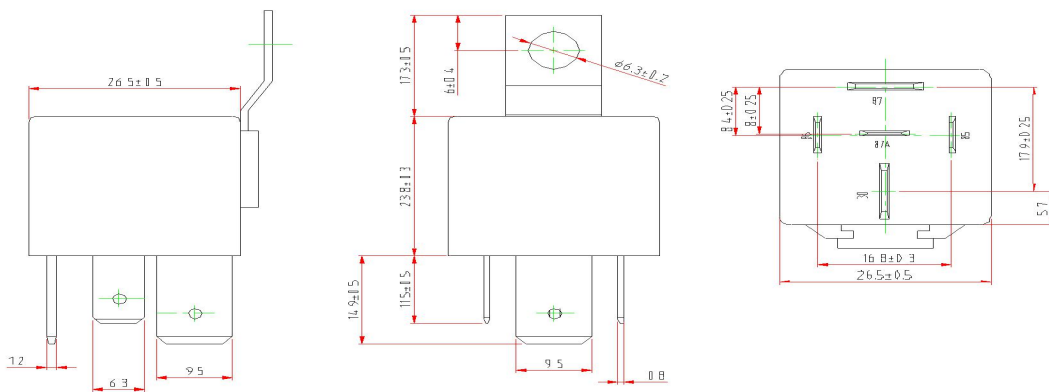
M7/□□□-101□□

Plug-in Type



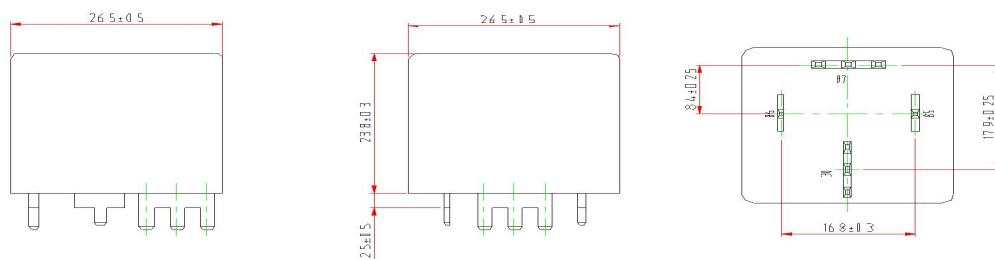
M7/□□□-102□□

Plug-in & Metal shrouded Type



M7P/□□□-102□□

PCB Type



Wiring Diagram

