

RH2L Series — Magnetic Latching Relays

Key features of the RH2L series include:

- Compact miniature size saves board space
- Power-saving operation by pulse inputs eliminates the need for continuous control voltage
- Coils rated for continuous duty
- Built-in mechanical indicator to show set/reset condition
- Available with blade and PC mount terminals
- DIN rail, surface, panel, and PCB type sockets available for a wide range of mounting applications
- Excellent self-holding performance (magnetic latching)



| | | |
|----------------|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Specifications | Contact Material | Silver cadmium oxide |
| | Contact Resistance | 50mΩ or less (initial value) |
| | Minimum Applicable Load | 5V DC, 100mA |
| | Operating Time | 30ms (AC); 20 ms (DC) |
| | Maximum Continuous Applied Voltage (AC/DC) | 110% of rated voltage |
| | Minimum Set and Reset Voltage at 20°C | 80% of rated voltage |
| | Set Time | 30ms or less (AC); 20ms or less (DC) |
| | Reset Time | 30ms or less (AC); 20ms or less (DC) |
| | Power Consumption | Set coil: AC: approximately 1.2V; DC: approximately 2W Reset coil: approximately 0.5VA; DC: approximately 0.9W |
| | Insulation Resistance | 100MΩ minimum |
| | Dielectric Strength | Between live and dead parts: 2,000V AC, 1 minute Between contact circuit and opposite coil: 2,000V AC, 1 minute Between contact circuits: 1,500V AC, 1 minute Between contacts of same pole: 1,000V AC, 1 minute |
| | Frequency Response | 1,800 operations/hour |
| | Vibration Resistance | 60N (approximately 6G) Maximum frequency 55Hz |
| | Shock Resistance | 100N or more (approximately 10G) |
| | Life Expectancy | Electrical: over 200,000 operations Mechanical: over 10,000,000 operations |
| | Operating Temperature | -30 to +70°C |
| | Weight | 50g |



UL Recognized
File No. E66043



CSA Certified
File No. LR35144

Ordering Information

Order standard voltages for fastest delivery. Allow extra delivery time for non-standard voltages.

Basic Part No.
RH2LB-U

Coil Voltage:
AC120V

Part Numbers

Part Numbers: RH2L Series

| Termination | Contact Configuration | Part No. |
|------------------------|-----------------------|----------|
| B: Blade | DPDT | RH2LB-U |
| V2: PCB - 0.079" (2mm) | DPDT | RH2LV2-U |

Ratings

Coil Ratings

| Rated Voltage | Set Coil | | | | Reset Coil | | |
|---------------|----------------------------------|-------|------------------------------------|----------------------------------|------------|------------------------------------|--------|
| | Rated Current $\pm 15\%$ at 20°C | | Coil Resistance $\pm 10\%$ at 20°C | Rated Current $\pm 15\%$ at 20°C | | Coil Resistance $\pm 10\%$ at 20°C | |
| | 60Hz | 50Hz | | 60Hz | 50Hz | | |
| AC | 6V | 220mA | 227mA | 8.8Ω | 68mA | 68.7mA | 6.9Ω |
| | 12V | 100mA | 103mA | 41.6Ω | 34mA | 34.2mA | 30.2Ω |
| | 24V | 50mA | 51.2mA | 182Ω | 17.1mA | 17.1mA | 105Ω |
| | 120V | 10mA | 10.3mA | 4,670Ω | 4.2mA | 4.2mA | 2,680Ω |
| DC | 6V | 333mA | | 18Ω | 150mA | | 40Ω |
| | 12V | 167mA | | 72Ω | 75mA | | 160Ω |
| | 24V | 83mA | | 288Ω | 37.5mA | | 640Ω |
| | 48V | 42mA | | 1,150Ω | 18.8mA | | 2,560Ω |

E

Relays

Contact Ratings

| Voltage | Resistive | | Inductive | | Motor Load | |
|---------|-----------|------|-----------|------|------------|-------|
| | UL | CSA | UL | CSA | UL | CSA |
| 30V DC | 10A | 10A | — | 7.5A | — | — |
| 120V AC | 10A | 10A | 7.5A | 7.5A | 1/6HP | 1/6HP |
| 240V AC | 7.5A | 7.5A | 6.5A | 5A | 1/3HP | 1/3HP |

Applicable Sockets

Part Numbers: Sockets

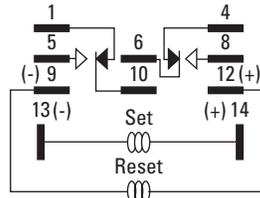
| Relay | Standard DIN Rail Mount | Finger-Safe DIN Rail Mount | Panel Mount | PC Mount | Springs (optional) |
|-------|-------------------------|----------------------------|-------------|----------|----------------------|
| RH2LB | SH3B-05 | SH3B-05C | SH3B-51 | SH3B-62 | SFA-101 SY4S-51F1 |



See Section F for details on sockets. All DIN rail mount sockets shown above can be mounted using DIN rail BNDN1000.

Internal Circuit

RH2L Series

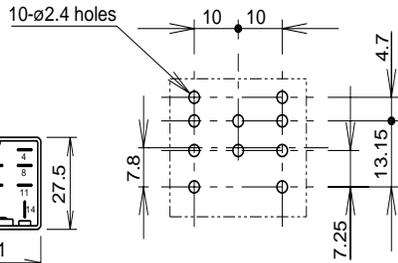
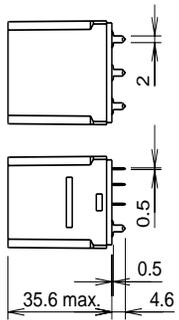


Bottom View

Shown in reset (unlatched) position.

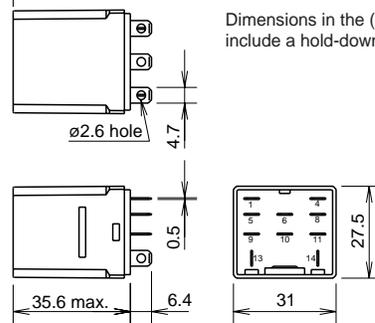
Dimensions

**PCB Terminal
RH2LV2**



**Plug-in
RH2LB**

Total length from panel surface including relay socket
SH3B-05A: 61.5 (63.5) max., SH3B-51: 39.6 (41.6) max.



All dimensions in mm.