

## 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)



<b>Contact Material</b>	Silver cadmium oxide
<b>Contact Resistance</b>	50mΩ or less (initial value)
<b>Minimum Applicable Load</b>	5V DC, 100mA
<b>Operating Time</b>	30ms (AC); 20 ms (DC)
<b>Maximum Continuous Applied Voltage (AC/DC)</b>	110% of rated voltage
<b>Minimum Set and Reset Voltage at 20°C</b>	80% of rated voltage
<b>Set Time</b>	30ms or less (AC); 20ms or less (DC)
<b>Reset Time</b>	30ms or less (AC); 20ms or less (DC)
<b>Power Consumption</b>	Set coil: AC: approximately 1.2V; DC: approximately 2W Reset coil: approximately 0.5VA; DC: approximately 0.9W
<b>Insulation Resistance</b>	100MΩ minimum
<b>Dielectric Strength</b>	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
<b>Frequency Response</b>	1,800 operations/hour
<b>Vibration Resistance</b>	60N (approximately 6G) Maximum frequency 55Hz
<b>Shock Resistance</b>	100N or more (approximately 10G)
<b>Life Expectancy</b>	Electrical: over 200,000 operations Mechanical: over 10,000,000 operations
<b>Operating Temperature</b>	-30 to +70°C
<b>Weight</b>	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	8.8 $\Omega$	68mA	68.7mA	6.9 $\Omega$
	12V	100mA	103mA	41.6 $\Omega$	34mA	34.2mA	30.2 $\Omega$
	24V	50mA	51.2mA	182 $\Omega$	17.1mA	17.1mA	105 $\Omega$
	120V	10mA	10.3mA	4,670 $\Omega$	4.2mA	4.2mA	2,680 $\Omega$
DC	6V	333mA		18 $\Omega$	150mA		40 $\Omega$
	12V	167mA		72 $\Omega$	75mA		160 $\Omega$
	24V	83mA		288 $\Omega$	37.5mA		640 $\Omega$
	48V	42mA		1,150 $\Omega$	18.8mA		2,560 $\Omega$

**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

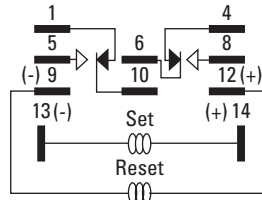
Relay	Standard DIN Rail Mount	Finger-Safe DIN Rail Mount	Panel Mount	PC Mount	Springs (optional)
RH2LB	SH3B-05	SH3B-05C	SH3B-51	SH3B-62	SFA-101 SY4S-51F1



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

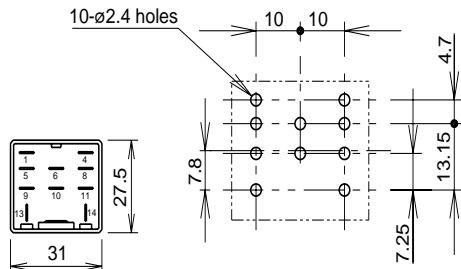
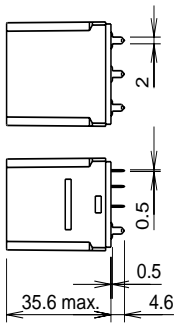


Bottom View

Shown in reset (unlatched) position.

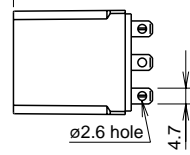
## Dimensions

### PCB Terminal RH2LV2

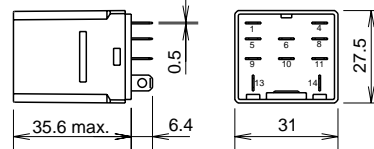


### Plug-in RH2LB

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



Dimensions in the ( )  
include a hold-down spring.



All dimensions in mm.

**E**  
**Relays**