

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)



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	8.8 Ω	68mA	68.7mA	6.9 Ω
	12V	100mA	103mA	41.6 Ω	34mA	34.2mA	30.2 Ω
	24V	50mA	51.2mA	182 Ω	17.1mA	17.1mA	105 Ω
	120V	10mA	10.3mA	4,670 Ω	4.2mA	4.2mA	2,680 Ω
DC	6V	333mA		18 Ω	150mA		40 Ω
	12V	167mA		72 Ω	75mA		160 Ω
	24V	83mA		288 Ω	37.5mA		640 Ω
	48V	42mA		1,150 Ω	18.8mA		2,560 Ω

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

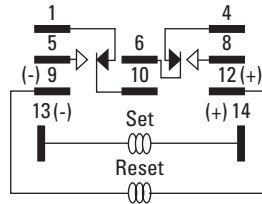
Relay	Standard DIN Rail Mount	Finger-Safe DIN Rail Mount	Panel Mount	PC Mount	Springs (optional)
RH2LB	SH3B-05	SH3B-05C	SH3B-51	SH3B-62	SFA-101 SY4S-51F1



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

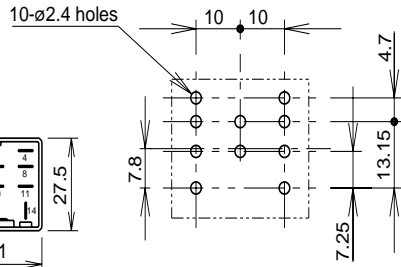
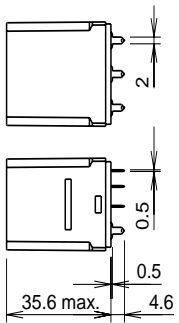


Bottom View

Shown in reset (unlatched) position.

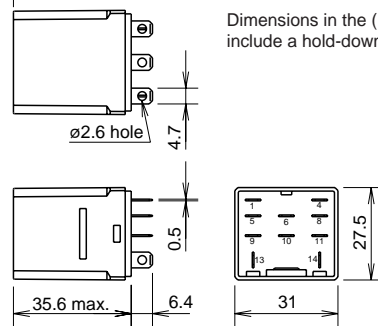
Dimensions

**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.