

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)



E

Relays

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

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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

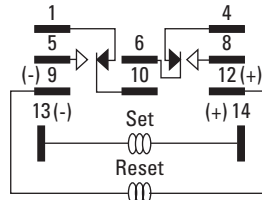
Relay	Standard DIN Rail Mount	Finger-Safe DIN Rail Mount	Panel Mount	PC Mount	Springs (optional)
RH2LB	SH3B-05	SH3B-05C	SH3B-51	SH3B-62	SFA-101 SY4S-51F1



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

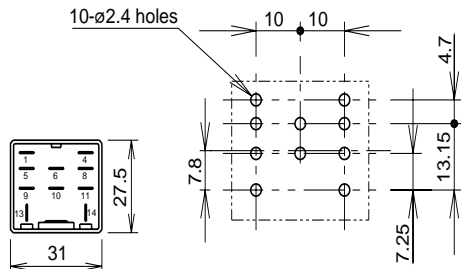
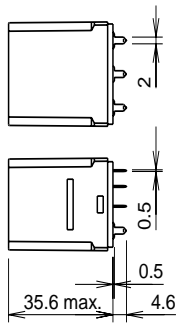


Bottom View

Shown in reset (unlatched) position.

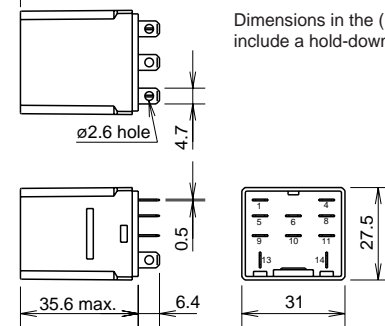
Dimensions

**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.