

# INSTRUCTION SHEET

## Slim Relay & Socket Operating Instructions RV8H Series

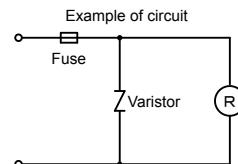
Type No. RV8H-L-□, RV8H-S-□

Read this instruction sheet to make sure of correct operation before starting installation, wiring, operation, maintenance, and inspection of this product. Also make sure that this instruction sheet is kept by end users.

### ⚠ Safety Precautions

- Turn off power to the sockets before starting installation, removal, wiring, maintenance, and inspection of the sockets. Failure to turn power off may cause electrical shocks or fire hazard.
- Use proper wires to meet the voltage and current requirements.
- Make sure that relay and output equipment are connected completely. Incomplete connection may cause overheat, resulting in fire hazard.
- To ensure safety, make sure that all descriptions in the operation instructions are followed strictly.
- Prevent metal fragments and pieces of wire from dropping inside the sockets. Ingress of such fragments and chips may cause fire, failure, or malfunction.
- Use a 15A non-time delay fuse for protection against short-circuit.
- When lightning surge may enter the input circuit of types AD12, AD18, and AD24, and when lightning surge and noise may enter the input circuit of types AD48 and AD60 of the following products, use a proper varistor. Otherwise, failure maybe caused.

Corresponding products	Recommend varistor
RV8H-L-AD12	Panasonic ERZV07D390
RV8H-L-AD18	
RV8H-L-AD24	
RV8H-L-AD48	Panasonic ERZV14D121
RV8H-L-AD60	
RV8H-S-AD12	
RV8H-S-AD18	Panasonic ERZV07D390
RV8H-S-AD24	
RV8H-S-AD48	
RV8H-S-AD60	Panasonic ERZV14D121

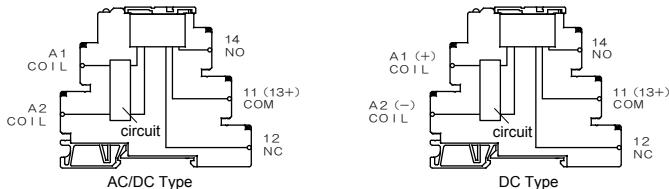


- Apply voltage that is applicable to the relay and socket. Otherwise fire, failure, or malfunction will be caused.

Screw Type	Coil Voltage	Relay & Socket P/N	Socket P/N	Relay P/N
DC6V	RV8H-L-D6	SV1H-07L-5	RV1H-G-D5	
DC9V	RV8H-L-D9	SV1H-07L-5	RV1H-G-D9	
DC12V	RV8H-L-D12	SV1H-07L-5	RV1H-G-D12	
DC18V	RV8H-L-D18	SV1H-07L-5	RV1H-G-D18	
DC24V	RV8H-L-D24	SV1H-07L-5	RV1H-G-D24	
AC/DC12V	RV8H-L-AD12	SV1H-07L-1	RV1H-G-D12	
AC/DC18V	RV8H-L-AD18	SV1H-07L-1	RV1H-G-D18	
AC/DC24V	RV8H-L-AD24	SV1H-07L-1	RV1H-G-D24	
AC/DC48V	RV8H-L-AD48	SV1H-07L-2	RV1H-G-D48	
AC/DC60V	RV8H-L-AD60	SV1H-07L-2	RV1H-G-D60	
AC/DC110-125V	RV8H-L-AD110	SV1H-07L-3	RV1H-G-D60	
AC/DC220-240V	RV8H-L-AD220	SV1H-07L-4	RV1H-G-D60	
Spring clamp Type	Coil Voltage	Relay & Socket P/N	Socket P/N	Relay P/N
DC6V	RV8H-S-D6	SV1H-07LS-5	RV1H-G-D5	
DC9V	RV8H-S-D9	SV1H-07LS-5	RV1H-G-D9	
DC12V	RV8H-S-D12	SV1H-07LS-5	RV1H-G-D12	
DC18V	RV8H-S-D18	SV1H-07LS-5	RV1H-G-D18	
DC24V	RV8H-S-D24	SV1H-07LS-5	RV1H-G-D24	
AC/DC12V	RV8H-S-AD12	SV1H-07LS-1	RV1H-G-D12	
AC/DC18V	RV8H-S-AD18	SV1H-07LS-1	RV1H-G-D18	
AC/DC24V	RV8H-S-AD24	SV1H-07LS-1	RV1H-G-D24	
AC/DC48V	RV8H-S-AD48	SV1H-07LS-2	RV1H-G-D48	
AC/DC60V	RV8H-S-AD60	SV1H-07LS-2	RV1H-G-D60	
AC/DC110-125V	RV8H-S-AD110	SV1H-07LS-3	RV1H-G-D60	
AC/DC220-240V	RV8H-S-AD220	SV1H-07LS-4	RV1H-G-D60	

- Observe the maximum ambient temperature shown below. Otherwise fire, failure, or malfunction will be caused.
- 55°C maximum: RV8H-L-AD110, RV8H-L-AD220, RV8H-S-AD110, RV8H-S-AD220
- 70°C maximum: All other part not otherwise specified.

### 1.Terminal Arrangement

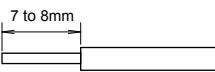


### 2.Wiring Instructions

#### 2-1 RV8H-L-□

Use the following applicable wires for wiring.

- 2.5mm<sup>2</sup> max. or AWG14 max., CU(copper), Stranded or Solid wire : 1
- 1.5mm<sup>2</sup> max. or AWG16 max., CU(copper), Stranded wire : 2 max.
- φ 1.3mm max. or AWG16 max., CU(copper) solid wire : 2 max.

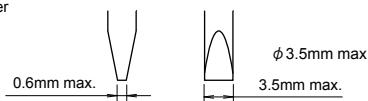


Strip the wire insulation 7 to 8 mm from the end.

Stripping the wire insulation too short may cause the wire to come off. Stripping the wire insulation too long may cause short-circuit with the adjacent socket. Make sure to twist the stranded wire to prevent loosening. For wiring, use the following applicable screwdriver.

Phillips screwdriver φ3.5mm max.

Flat screwdriver

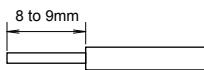


Recommended tightening torque : 0.3 N · m to 0.4 N · m (UL certificated: 0.35N · m)

#### 2-2 RV8H-S-□

Use the following applicable wires for wiring.

- 0.5mm<sup>2</sup> to 2.5mm<sup>2</sup> or AWG20 to AWG14, CU(copper), Stranded or Solid wire : 1



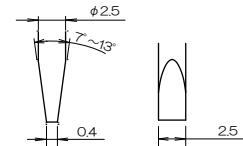
Strip the wire insulation 8 to 9 mm from the end.

Stripping the wire insulation too short may cause the wire to come off. Stripping the wire insulation too long may cause short-circuit with the adjacent socket. Make sure to twist the stranded wire to prevent loosening.

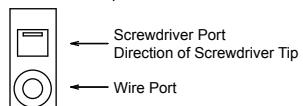
- For wiring, use the optional screwdriver(BC1S-SD0) or the following applicable screwdriver.

- In applications using ferrules for stranded wires, choose the ferrule listed in the table.

Applicable wire(stranded)	Part No.	Manufacturer
0.5 20	AI0.5-8WH	Phoenix Contact
0.75 18	AI0.75-8GY	
1 18	AI1-8RD	Nichifu
0.5 22	TE0.5-8	
0.75 20	TE0.75-8	
1 18	TE1-0.8	

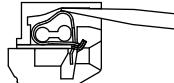


- Wire insertion positions, screwdriver insertion positions, and the directions of screwdriver tip are shown below.

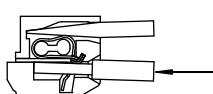


### 3.Wiring Instructions

- Insert the optional screwdriver (BC1S-SD0) or an applicable screwdriver into the square-shaped port as shown, until the screwdriver tip touches the bottom of the spring.



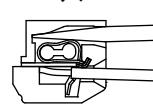
- While the screwdriver is retained in the port, insert the wire or ferrule into the round-shaped wire port. Each wire port can accommodate one wire or ferrule.



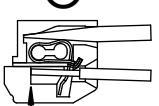
### 4.Pulling out the screwdriver. The connection is now complete.



Incorrect



Correct

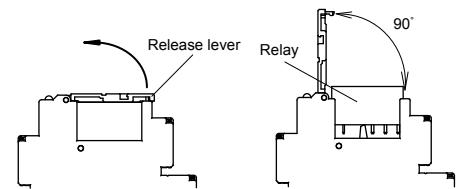


### 3.Removing the Relay

Open the release lever in the direction of the arrow, and remove the relay.

### 4.Installing the Relay

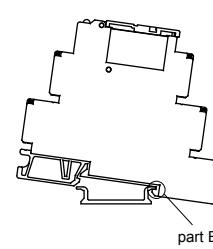
- Open the release lever, and insert the relay into the socket until the bottom of relay touches the projection A on the socket. Close the release lever until it is latched.



Installed securely

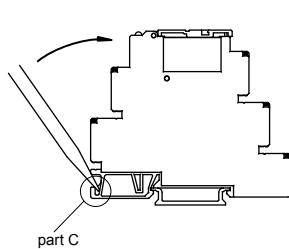
### 5.Installing the socket

- Put the groove on the socket(part B) on the DIN rail, and press the socket towards the DIN rail as shown in the figure.



### 6.Removing the Socket

Insert a small flat screwdriver into the slot (part C) of the socket, and pull out the socket as shown in the figure.



### ⚠ CAUTION

- When installing the relay, do not press in using a relay. Make sure to use the release lever, otherwise the projection A will be damaged.

### ⚠ CAUTION

- When using the RV8H in cold temperature (0°C or below), install or remove the socket on the DIN rail carefully so that the socket will not be damaged.