Panasonic
ideas for life

Relay for control panel of 2c 7A and 4c 5A

HJ RELAYS

FEATURES

1. Economical prices achieved

2. Useful for wide range of applications

Gold-plated contact types are capable of switching under low level (1mA: reference value) to powerful high level (7A: 2-pole) loads.

3. Wide range of types available

The lineup includes 2-pole and 4-pole products, relays with operating indicator lights, and push-button types. You will also find relays that absorb surge when the coil goes to the off state with diodes (for DC type) or CR circuits (for AC type). Moreover, the availability of a broad range of coil voltages meets a wide range of needs.

4. Coil cutoff detection

The LED that is fitted to AC coils goes off when the coil is inoperative and so provides a cutoff detection function.

5. Finger protection

Terminal sockets with finger protection, designed to prevent fingers from touching the terminals, are also available.

6. Sockets and terminal sockets are available.

TYPICAL APPLICATIONS

Control panels
Power supply units
Molding machines
Machine tools
Welding equipment
Agricultural equipment
Office equipment
Vending machines
Communications equipment
Amusement machines

Compliance with RoHS Directive

ORDERING INFORMATION

HJ ☐ - ☐ - ☐ - ☐ - ☐ - ☐

Contact arrangement
2: 2 Form C
4: 4 Form C

Operation indication
Nil: Without LED indication
L: With LED indication

Test button
Nil: Without a test button
T: With a test button

Nominal coil voltage
AC 12, 24, 48, 100, 120, 200, 220/240 V
DC 12, 24, 48, 110 V

Surge suppression
Nil: Without
D: With diode
R: With CR circuit

Contact surface
Nil: Without Au plating
6: With Au plating

Note: Certified by UL/C-UL and TÜV

TYPES

1. Au plating type

1) Plug-in type

Nominal coil voltage	2 Form C	4 Form C
	Part No.	Part No.
12V DC	HJ2-DC 12V-6	HJ4-DC 12V-6
24V DC	HJ2-DC 24V-6	HJ4-DC 24V-6
48V DC	HJ2-DC 48V-6	HJ4-DC 48V-6
100/110V DC	HJ2-DC110V-6	HJ4-DC110V-6
12V AC	HJ2-AC 12V-6	HJ4-AC 12V-6
24V AC	HJ2-AC 24V-6	HJ4-AC 24V-6
48V AC	HJ2-AC 48V-6	HJ4-AC 48V-6
100/110V AC	HJ2-AC100V-6	HJ4-AC100V-6
110/120V AC	HJ2-AC120V-6	HJ4-AC120V-6
200/220V AC	HJ2-AC200V-6	HJ4-AC200V-6
220/240V AC	HJ2-AC220/240V-6	HJ4-AC220/240V-6

Standard packing: Carton: 20 pcs.; Case: 200 pcs.

2) Plug-in type (with LED indication)

Nominal coil voltage	2 Form C	4 Form C
	Part No.	Part No.
12V DC	HJ2-L-DC 12V-6	HJ4-L-DC 12V-6
24V DC	HJ2-L-DC 24V-6	HJ4-L-DC 24V-6
48V DC	HJ2-L-DC 48V-6	HJ4-L-DC 48V-6
100/110V DC	HJ2-L-DC110V-6	HJ4-L-DC110V-6
12V AC	HJ2-L-AC 12V-6	HJ4-L-AC 12V-6
24V AC	HJ2-L-AC 24V-6	HJ4-L-AC 24V-6
48V AC	HJ2-L-AC 48V-6	HJ4-L-AC 48V-6
100/110V AC	HJ2-L-AC100V-6	HJ4-L-AC100V-6
110/120V AC	HJ2-L-AC120V-6	HJ4-L-AC120V-6
200/220V AC	HJ2-L-AC200V-6	HJ4-L-AC200V-6
220/240V AC	HJ2-L-AC220/240V-6	HJ4-L-AC220/240V-6

Standard packing: Carton: 20 pcs.; Case: 200 pcs.

3) Plug-in type (with diode)

Nominal coil voltage	2 Form C	4 Form C
	Part No.	Part No.
12V DC	HJ2-DC 12V-D-6	HJ4-DC 12V-D-6
24V DC	HJ2-DC 24V-D-6	HJ4-DC 24V-D-6
48V DC	HJ2-DC 48V-D-6	HJ4-DC 48V-D-6
100/110V DC	HJ2-DC110V-D-6	HJ4-DC110V-D-6

Standard packing: Carton: 20 pcs.; Case: 200 pcs.

4) Plug-in type (with diode and LED indication)

Nominal coil voltage	2 Form C	4 Form C
	Part No.	Part No.
12V DC	HJ2-L-DC 12V-D-6	HJ4-L-DC 12V-D-6
24V DC	HJ2-L-DC 24V-D-6	HJ4-L-DC 24V-D-6
48V DC	HJ2-L-DC 48V-D-6	HJ4-L-DC 48V-D-6
100/110V DC	HJ2-L-DC110V-D-6	HJ4-L-DC110V-D-6

Standard packing: Carton: 20 pcs.; Case: 200 pcs.

5) Plug-in type (with CR)

Nominal coil voltage	2 Form C	4 Form C
	Part No.	Part No.
100/110V AC	HJ2-AC100V-R-6	HJ4-AC100V-R-6
110/120V AC	HJ2-AC120V-R-6	HJ4-AC120V-R-6
200/220V AC	HJ2-AC200V-R-6	HJ4-AC200V-R-6
220/240V AC	HJ2-AC220/240V-R-6	HJ4-AC220/240V-R-6

Standard packing: Carton: 20 pcs.; Case: 200 pcs.

6) Plug-in type (with CR and LED indication)

Nominal coil voltage	2 Form C	4 Form C
	Part No.	Part No.
100/110V AC	HJ2-L-AC100V-R-6	HJ4-L-AC100V-R-6
110/120V AC	HJ2-L-AC120V-R-6	HJ4-L-AC120V-R-6
200/220V AC	HJ2-L-AC200V-R-6	HJ4-L-AC200V-R-6
220/240V AC	HJ2-L-AC220/240V-R-6	HJ4-L-AC220/240V-R-6

Standard packing: Carton: 20 pcs.; Case: 200 pcs.

2. Without Au plating type

1) Plug-in type

Nominal coil voltage	2 Form C	4 Form C
	Part No.	Part No.
12V DC	HJ2-DC 12V	HJ4-DC 12V
24V DC	HJ2-DC 24V	HJ4-DC 24V
48V DC	HJ2-DC 48V	HJ4-DC 48V
100/110V DC	HJ2-DC110V	HJ4-DC110V
12V AC	HJ2-AC 12V	HJ4-AC 12V
24V AC	HJ2-AC 24V	HJ4-AC 24V
48V AC	HJ2-AC 48V	HJ4-AC 48V
100/110V AC	HJ2-AC100V	HJ4-AC100V
110/120V AC	HJ2-AC120V	HJ4-AC120V
200/220V AC	HJ2-AC200V	HJ4-AC200V
220/240V AC	HJ2-AC220/240V	HJ4-AC220/240V

Standard packing: Carton: 20 pcs.; Case: 200 pcs.

2) Plug-in type (with LED indication)

Nominal coil voltage	2 Form C	4 Form C
	Part No.	Part No.
12V DC	HJ2-L-DC 12V	HJ4-L-DC 12V
24V DC	HJ2-L-DC 24V	HJ4-L-DC 24V
48V DC	HJ2-L-DC 48V	HJ4-L-DC 48V
100/110V DC	HJ2-L-DC110V	HJ4-L-DC110V
12V AC	HJ2-L-AC 12V	HJ4-L-AC 12V
24V AC	HJ2-L-AC 24V	HJ4-L-AC 24V
48V AC	HJ2-L-AC 48V	HJ4-L-AC 48V
100/110V AC	HJ2-L-AC100V	HJ4-L-AC100V
110/120V AC	HJ2-L-AC120V	HJ4-L-AC120V
200/220V AC	HJ2-L-AC200V	HJ4-L-AC200V
220/240V AC	HJ2-L-AC220/240V	HJ4-L-AC220/240V

Standard packing: Carton: 20 pcs.; Case: 200 pcs.

3) Plug-in type (with a test button)

Nominal coil voltage	2 Form C	4 Form C
	Part No.	Part No.
12V DC	HJ2-T-DC 12V	HJ4-T-DC 12V
24V DC	HJ2-T-DC 24V	HJ4-T-DC 24V
100/110V AC	HJ2-T-AC100V	HJ4-T-AC100V
200/220V AC	HJ2-T-AC200V	HJ4-T-AC200V

Standard packing: Carton: 20 pcs.; Case: 200 pcs.

4) Plug-in type (with LED indication and a test button)

Nominal coil voltage	2 Form C	4 Form C
	Part No.	Part No.
12V DC	HJ2-L-T-DC 12V	HJ4-L-T-DC 12V
24V DC	HJ2-L-T-DC 24V	HJ4-L-T-DC 24V
100/110V AC	HJ2-L-T-AC100V	HJ4-L-T-AC100V
200/220V AC	HJ2-L-T-AC200V	HJ4-L-T-AC200V

Standard packing: Carton: 20 pcs.; Case: 200 pcs.

5) Plug-in type (with diode)

Nominal coil voltage	2 Form C	4 Form C
	Part No.	Part No.
12V DC	HJ2-DC 12V-D	HJ4-DC 12V-D
24V DC	HJ2-DC 24V-D	HJ4-DC 24V-D
48V DC	HJ2-DC 48V-D	HJ4-DC 48V-D
100/110V DC	HJ2-DC110V-D	HJ4-DC110V-D

Standard packing: Carton: 20 pcs.; Case: 200 pcs.

6) Plug-in type (with diode and LED indication)

Nominal coil voltage	2 Form C	4 Form C
	Part No.	Part No.
12V DC	HJ2-L-DC 12V-D	HJ4-L-DC 12V-D
24V DC	HJ2-L-DC 24V-D	HJ4-L-DC 24V-D
48V DC	HJ2-L-DC 48V-D	HJ4-L-DC 48V-D
100/110V DC	HJ2-L-DC110V-D	HJ4-L-DC110V-D

Standard packing: Carton: 20 pcs.; Case: 200 pcs.

7) Plug-in type (with CR)

Nominal coil voltage	2 Form C	4 Form C
	Part No.	Part No.
100/110V AC	HJ2-AC100V-R	HJ4-AC100V-R
110/120V AC	HJ2-AC120V-R	HJ4-AC120V-R
200/220V AC	HJ2-AC200V-R	HJ4-AC200V-R
220/240V AC	HJ2-AC220/240V-R	HJ4-AC220/240V-R

Standard packing: Carton: 20 pcs.; Case: 200 pcs.

8) Plug-in type (with CR and LED indication)

Nominal coil voltage	2 Form C	4 Form C
	Part No.	Part No.
100/110V AC	HJ2-L-AC100V-R	HJ4-L-AC100V-R
110/120V AC	HJ2-L-AC120V-R	HJ4-L-AC120V-R
200/220V AC	HJ2-L-AC200V-R	HJ4-L-AC200V-R
220/240V AC	HJ2-L-AC220/240V-R	HJ4-L-AC220/240V-R

Standard packing: Carton: 20 pcs.; Case: 200 pcs.

* For sockets and terminal sockets, see page 65.

RATING

1. Coil data

1) AC coils (50/60Hz)

Nominal coil voltage	Pick-up voltage (at 20°C 68°F)	Drop-out voltage (at 20°C 68°F)	Nominal coil current [±20%]		Nominal operating power		Max. applied voltage (at 70°C 158°F)
			50Hz	60Hz	50Hz	60Hz	
12V AC	80%V or less of nominal voltage (Initial)	30%V or more of nominal voltage (Initial)	102.9mA	85.4mA	Approx. 1.2 to 1.5 V A	Approx. 1.0 to 1.3 V A	110%V of nominal voltage
24V AC			54.5mA	45.6mA			
48V AC			30.7mA	25.9mA			
100/110V AC			11.8mA/13.9mA	10.0mA/11.6mA			
110/120V AC			10.9mA/12.5mA	9.1mA/10.3mA			
200/220V AC			6.8mA/8.1mA	5.7mA/6.7mA			
220/240V AC			6.8mA/7.8mA	5.6mA/6.4mA			

2) DC coils

Nominal coil voltage	Pick-up voltage (at 20°C 68°F)	Drop-out voltage (at 20°C 68°F)	Nominal coil current	Coil resistance (at 20°C 68°F)	Nominal operating power	Max. applied voltage (at 70°C 158°F)
12V DC	80%V or less of nominal voltage (Initial)	10%V or more of nominal voltage (Initial)	75mA [±10%]	160Ω	0.9W	110%V of nominal voltage
24V DC			37mA [±10%]	650Ω		
48V DC			18mA [±15%]	2,600Ω		
100/110V DC			9.1mA/10mA [±15%]	11,000Ω	1.1W	

2. Specifications

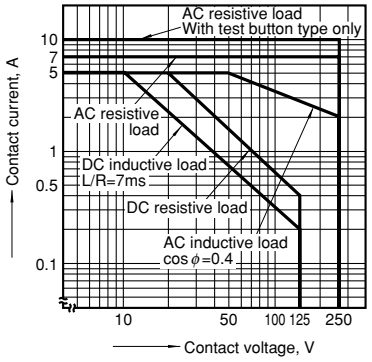
Characteristics	Item		Specifications	
Contact	Arrangement		2 Form C	4 Form C
	Contact resistance (Initial)		Max. 50 mΩ (By voltage drop 6 V DC 1A)	
	Contact material		Au plating type: Au plating Ag Without Au plating type: Ag	
Rating	Nominal switching capacity (resistive load)		7 A 250V AC	5 A 250V AC
	Max. switching power (resistive load)		1,750 VA	1,250 VA
	Max. switching voltage		250V AC, 125V DC	
	Max. switching current		7 A	5 A
	Nominal operating power		0.9W 1.2 VA	
	Min. switching capacity (Reference value)*1	Au plating type	1mA 1V DC	
		Without Au plating type	1mA 5V DC	
Electrical characteristics	Insulation resistance (Initial)		Min. 100MΩ (at 500V DC) Measurement at same location as “Breakdown voltage” section.	
	Breakdown voltage (Initial)	Between open contacts	1,000 Vrms for 1min. (Detection current: 10mA.)	
		Between contact sets	2,000 Vrms for 1min. (Detection current: 10mA.)	
		Between contact and coil	2,000 Vrms for 1min. (Detection current: 10mA.)	
	Temperature rise (coil) (at 70°C 158°F)		Max. 60°C 140°F (By resistive method, nominal coil voltage)	
	Operate time*2		Max. 20ms (Nominal coil voltage applied to the coil, excluding contact bounce time.)	
	Release time*2		Max. 20ms (Nominal coil voltage applied to the coil, excluding contact bounce time.) (without diode)	
Mechanical characteristics	Shock resistance	Functional	Min. 100 m/s² (Half-wave pulse of sine wave: 11 ms; detection time: 10μs.)	
		Destructive	Min. 1,000 m/s² (Half-wave pulse of sine wave: 6 ms.)	
	Vibration resistance	Functional	10 to 55 Hz at double amplitude of 1.0 mm (Detection time: 10μs.)	
		Destructive	10 to 55 Hz at double amplitude of 1.0 mm	
Expected life	Mechanical		Min. 2×10^7 (at 180 times/min.)	
	Electrical (resistive load) (at 20 times/min.)		Min. 10^5 (7A 250V AC) Min. 5×10^5 (5A 250V AC)	Min. 10^5 (5A 250V AC) Min. 2×10^5 (3A 250V AC)
Conditions	Conditions for operation, transport and storage*3 (Not freezing and condensing at low temperature)		Ambient temperature: –40°C to +70°C –40°F to +158°F Humidity: 5 to 85% R.H. (Not freezing and condensing at low temperature)	
	Max. Operating speed		20 times/min. (at nominal switching capacity)	
Unit weight			Approx. 34g 1.20 oz	

Notes: In accordance with the Electrical Appliance and Material Safety Law, you cannot exceed a voltage of 150V AC when using the 4 Form C type.
For more information, please inquire.
When using low level loads, contact instability may result depending on conditions of use (switching frequency and ambient conditions, etc.); therefore, please use the Au plating type.

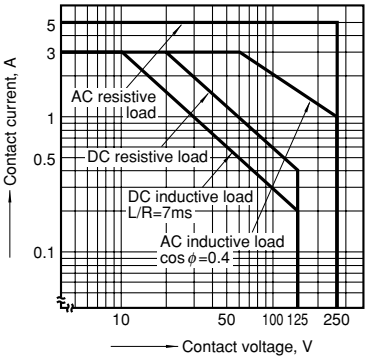
*1. This value can change due to the switching frequency, environmental conditions and desired reliability level, therefore it is recommended to check this with the actual load.
*2. For the AC coil types, the operate/release time will differ depending on the phase.
*3. The upper limit of the ambient temperature is the maximum temperature that can satisfy the coil temperature rise value. Refer to Usage, transport and storage conditions in NOTES.

REFERENCE DATA

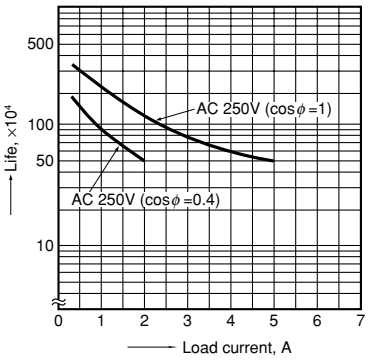
1-(1). Max. switching capacity (2 Form C type)



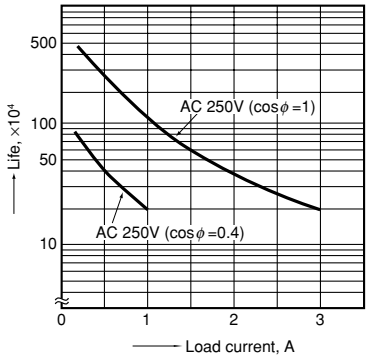
1-(2). Max. switching capacity (4 Form C type)



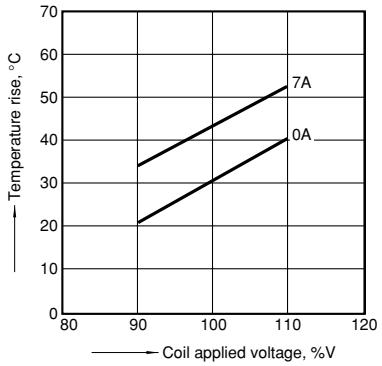
2-(1). Life curve (2 Form C)



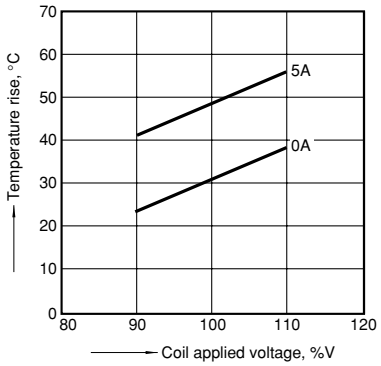
2-(2). Life curve (4 Form C)



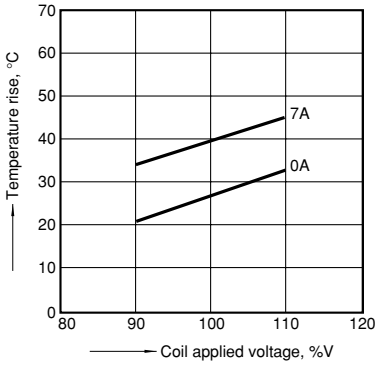
3-(1). Coil temperature rise (2 Form C/AC type)
Measured portion: Inside the coil
Ambient temperature: 70°C 158°F



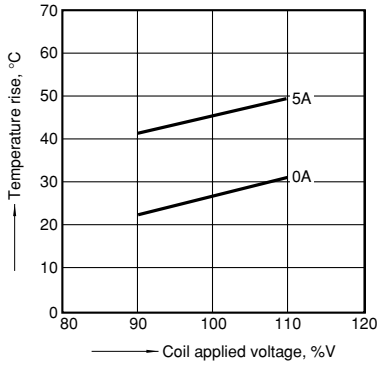
3-(2). Coil temperature rise (2 Form C/DC type)
Measured portion: Inside the coil
Ambient temperature: 70°C 158°F



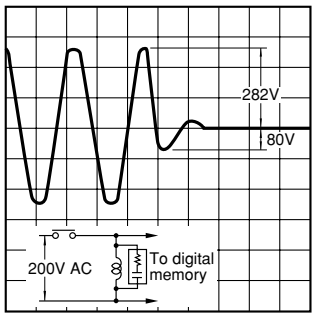
3-(3). Coil temperature rise (4 Form C/AC type)
Measured portion: Inside the coil
Ambient temperature: 70°C 158°F



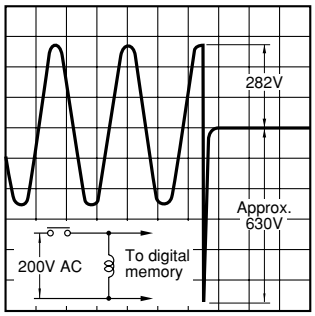
3-(4). Coil temperature rise (4 Form C/DC type)
Measured portion: Inside the coil
Ambient temperature: 70°C 158°F



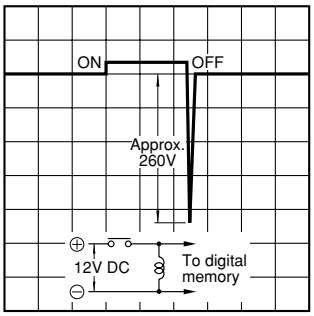
4-(1). AC coil surge voltage waveform
(With CR circuit)
Tested sample: HJ4-AC200V-R



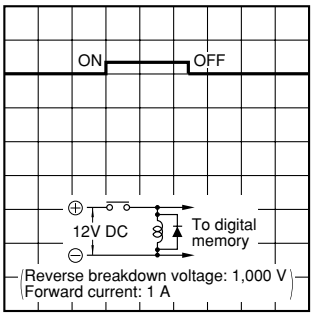
4-(2). AC coil surge voltage waveform
(Without CR circuit)
Tested sample: HJ4-AC200V



5-(1). DC coil surge voltage waveform
(Without diode)



5-(2). DC coil surge voltage waveform
(With diode)
Diode characteristics:
Reverse breakdown voltage: 1,000 V
Forward current: 1 A



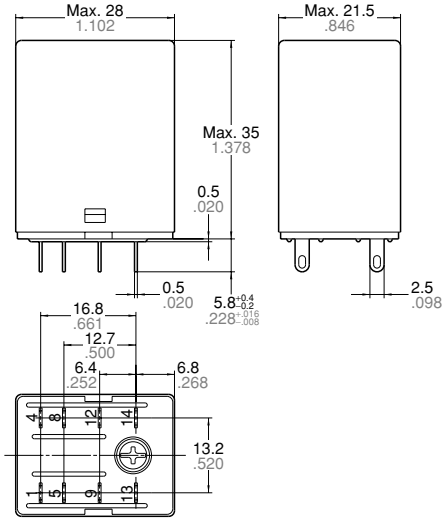
DIMENSIONS (mm inch)

The CAD data of the products with a **CAD Data** mark can be downloaded from: http://panasonic-electric-works.net/ac

1. Plug-in type (2 Form C) (including diode/CR)

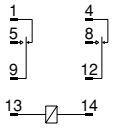
CAD Data

External dimensions

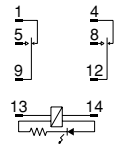


Schematic (Bottom view)

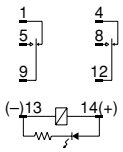
Standard type



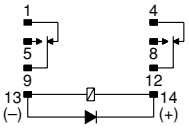
LED AC type



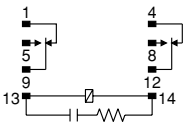
LED DC type



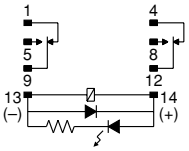
Diode DC type



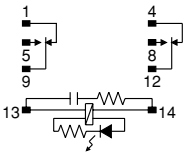
CR AC type



Diode/LED DC type



CR/LED AC type

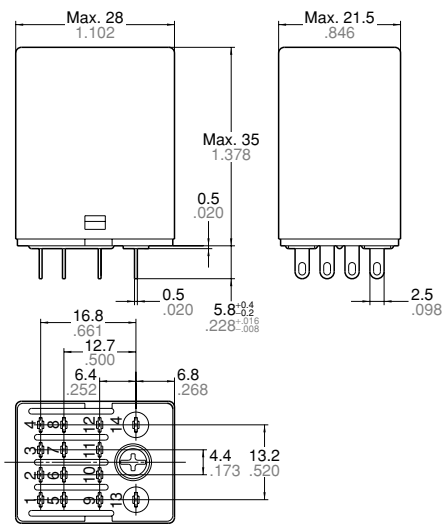


Dimension:	Tolerance
Less than 1mm .039inch:	±0.1 ±.004
Min. 1mm .039inch less than 3mm .118 inch:	±0.2 ±.008
Min. 3mm .118 inch:	±0.3 ±.012

2. Plug-in type (4 Form C) (including diode/CR)

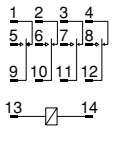
CAD Data

External dimensions

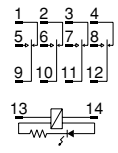


Schematic (Bottom view)

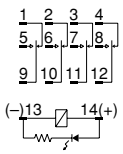
Standard type



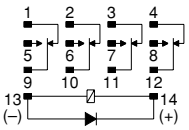
LED AC type



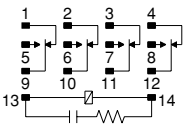
LED DC type



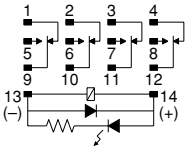
Diode DC type



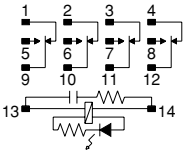
CR AC type



Diode/LED DC type



CR/LED AC type

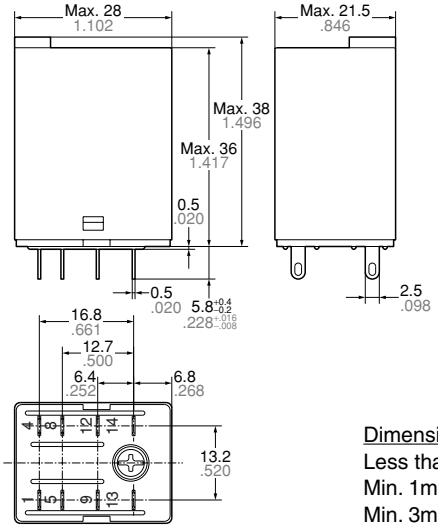


Dimension:	Tolerance
Less than 1mm .039inch:	±0.1 ±.004
Min. 1mm .039inch less than 3mm .118 inch:	±0.2 ±.008
Min. 3mm .118 inch:	±0.3 ±.012

3. Plug-in type with a test button (2 Form C)

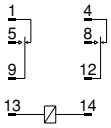
CAD Data

External dimensions

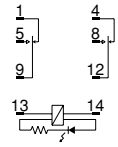


Schematic (Bottom view)

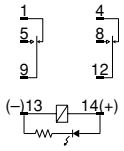
Standard type



LED AC type



LED DC type

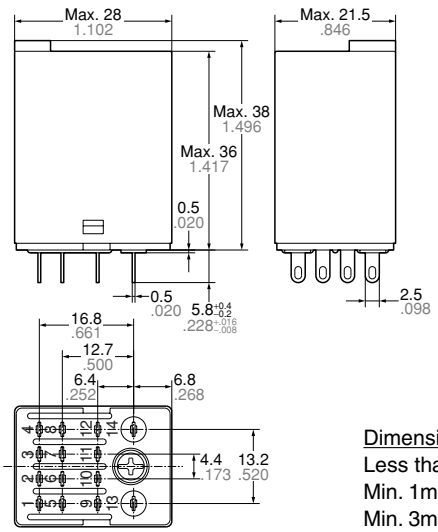


Dimension:	Tolerance
Less than 1mm .039inch:	±0.1 ±.004
Min. 1mm .039inch less than 3mm .118 inch:	±0.2 ±.008
Min. 3mm .118 inch:	±0.3 ±.012

4. Plug-in type with a test button (4 Form C)

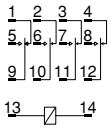
CAD Data

External dimensions

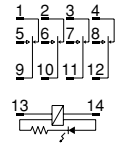


Schematic (Bottom view)

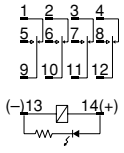
Standard type



LED AC type



LED DC type



Dimension:	Tolerance
Less than 1mm .039inch:	±0.1 ±.004
Min. 1mm .039inch less than 3mm .118 inch:	±0.2 ±.008
Min. 3mm .118 inch:	±0.3 ±.012

SAFETY STANDARDS

	File No.	Certification authority: UL/C-UL	File No.	Certification authority: TÜV
2 Form C	E43149*	7A 250V AC, 7A 30V DC	R2024382 (Standard) R2-50006950, R50049126 (Except standard)	7A 250V AC (cosϕ=1.0), 7A 30V DC (0ms) Test button type: 10A 250V AC (cosϕ=1.0), 10A 30V DC (0ms)
4 Form C	E43149*	5A 250V AC, 5A 30V DC	R2024382 (Standard) R50049126 (Except standard)	5A 250V AC (cosϕ=1.0), 5A 30V DC (0ms)

* CSA standard: Certified by C-UL

NOTES

1. Coil applied voltage

Please refer to “RATING” about coil input power supply.

2. LED display

Operation is displayed by the light emitted from the LED. The LED may remain briefly lit if voltage remains after the relay opens.

3. Switching lifetime

The switching lifetime is defined under the standard test condition specified in the JIS* C 5442 standard (temperature 15 to 35°C 59 to 95°F, humidity 25 to 75%). Check this with the real device as it is affected by coil driving circuit, load type, activation frequency, activation phase,ambient conditions and other factors.

Also, be especially careful of loads such as those listed below.

1) When used for AC load-operating and the operating phase is synchronous.

Rocking and fusing can easily occur due to contact shifting.

2) High-frequency load-operating

When high-frequency opening and closing of the relay is performed with a load that causes arcs at the contacts, nitrogen and oxygen in the air is fused by the arc energy and HNO_3 is formed. This can corrode metal materials.

Three countermeasures for these are listed here.

(1) Incorporate an arc-extinguishing circuit.

(2) Lower the operating frequency

(3) Lower the ambient humidity

4. Usage, transport and storage conditions

1) Temperature, humidity and pressure during usage, storage and transport

(1) Temperature:

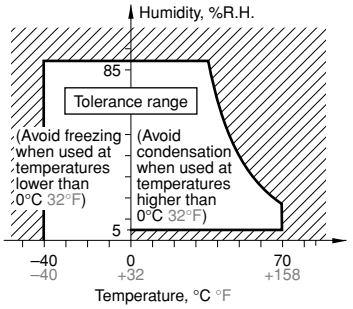
–40 to +70°C –40 to +158°F

(2) Humidity: 5 to 85% RH

(Avoid freezing and condensation.)

The humidity range varies with the temperature. Use within the range indicated in the graph below.

Temperature and humidity range for usage, transport, and storage



(3) Atmospheric pressure: 86 to 106 kPa

2) Condensation

Condensation forms when there is a sudden change in temperature under high temperature and high humidity conditions. Condensation will cause deterioration of the relay insulation.

3) Freezing

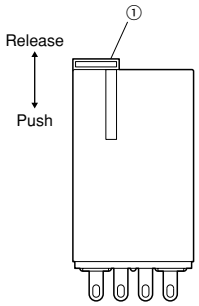
Condensation or other moisture may freeze on the relay when the temperatures is lower than 0°C 32°F. This causes problems such as sticking of movable parts or operational time lags.

4) Low temperature, low humidity environments

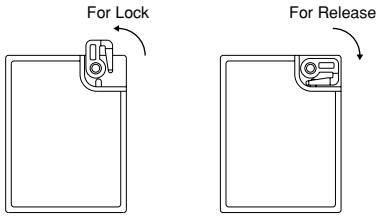
The plastic becomes brittle if the relay is exposed to a low temperature, low humidity environment for long periods of time.

5. Operation method for test button

1) Push and release ① gently to confirm relay switching.



2) To lock to one side turn 90° counter-clockwise while pushing lock and turn 90° clockwise to release.



3) Do not use the test button for anything other than testing, such as when checking the circuit.

6. Diode characteristics

1) Reverse breakdown voltage: 1,000 V

2) Forward current: 1 A

7. Diode and CR built-in type

Since the diode and CR inside the relay coil are designed to absorb the counter emf, the element may be damaged if a large surge, etc., is applied to the diode and CR. If there is the possibility of a large surge voltage from the outside, please implement measures to absorb it.

8. Please connect DC coil types with LED and built-in diode correctly by verifying the coil polarity (“+” and “–”). Connecting with reverse polarity will cause the LED not to light and damage the built-in diode due to its specification.

For Cautions for Use.

Panasonic
ideas for life

ACCESSORIES

HJ RELAYS
(Sockets and DIN rail terminal sockets)

TYPES

Type	No. of poles	Product name	Part No.
Plug-in socket	2-pole	HC2-socket (for HJ relay)	HC2-SS-K-H105
	2/4-pole (common)	HC4-socket (for HJ relay)	HC4-SS-K-H105
PC board socket	2-pole	HC2-PC board socket (for HJ relay)	HC2-PS-K-H105
	2/4-pole (common)	HC4-PC board socket (for HJ relay)	HC4-PS-K-H105
DIN rail terminal socket	2-pole	HJ2 terminal socket	HJ2-SFD
		HJ2 terminal socket (Finger protect type)	HJ2-SFD-S
	2/4-pole (common)	HJ4 terminal socket	HJ4-SFD
		HJ4 terminal socket (Finger protect type)	HJ4-SFD-S

Standard packing: Carton: 10 pcs.; Case: 100 pcs.

Notes: 1. Use the hold-down clip that is shipped with the terminal socket or socket.
2. DIN rail terminal sockets conform to UL/C-UL and TÜV, as standard. Sockets conform to UL and CSA, as standard.
3. In order to prevent breakage and disfiguring, the screw tightening torque for the terminal socket should be within the range of 0.49 to 0.69 N·m (5 to 7 kgf·cm).
4. When attaching directly to a chassis, please use an M4 × 10 metric coarse screw thread, a spring washer, and a hexagonal nut.
5. For S1DX/S1DXM timer, use the leaf holding clip (Part No. ADX18012).
6. HC relay sockets/terminal sockets are not adaptive for HJ relays. Use dedicated sockets/terminal sockets.

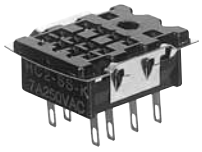
DIMENSIONS (mm inch)

The CAD data of the products with a CAD Data mark can be downloaded from: http://panasonic-electric-works.net/ac

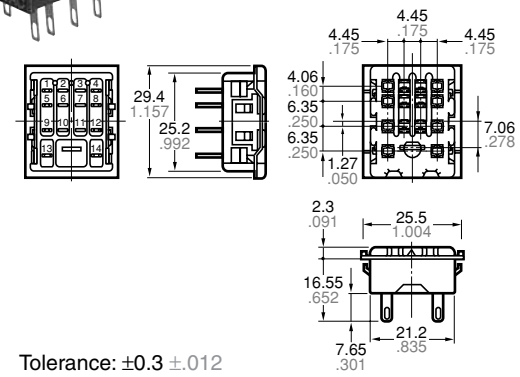
1. Plug-in socket

HC2 - Socket for HJ relay (HC2-SS-K-H105)

CAD Data



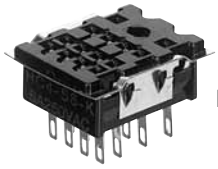
External dimensions



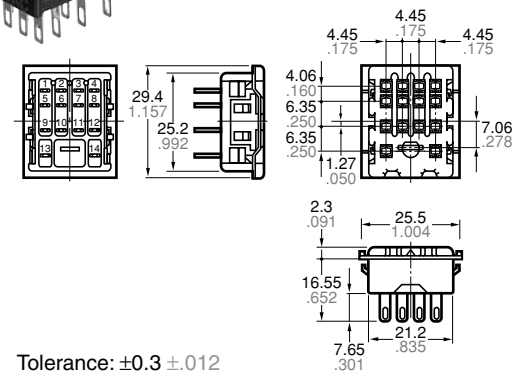
Tolerance: ±0.3 ±.012

HC4 - Socket for HJ relay (HC4-SS-K-H105)

CAD Data

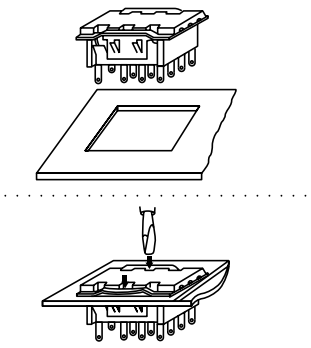


External dimensions

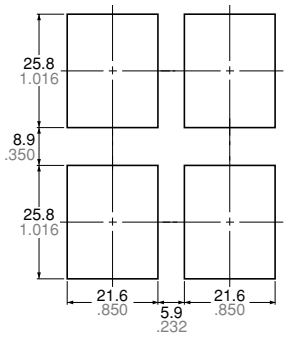


Tolerance: ±0.3 ±.012

Mounting hole diagram



Chassis cutout (Side-by-side installation)



Tolerance: ±0.2 ±.008

Notes: 1. Applicable chassis board thickness is 1.0 to 2.0 mm.
2. Installation is easy by inserting the socket from the top into the holes and by depressing the two down arrows on the retention fitting from the front.

With a relay mounted (HC2-SS-K-H105)

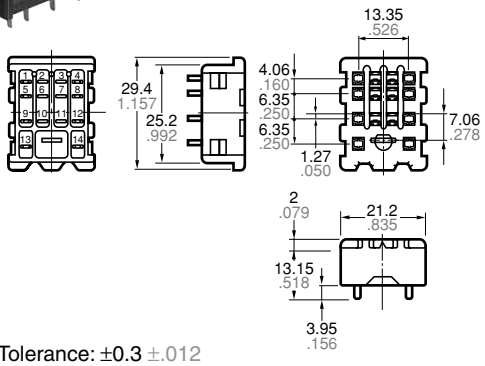
Hold-down clip is packaged with the socket. (Same product as plug-in socket (Part No.: HC2-SS-K) for HC relay except that hold-down clip shape is different.)

2. PC board socket

HC2 - PC board socket for HJ relay (HC2-PS-K-H105)

CAD Data

External dimensions

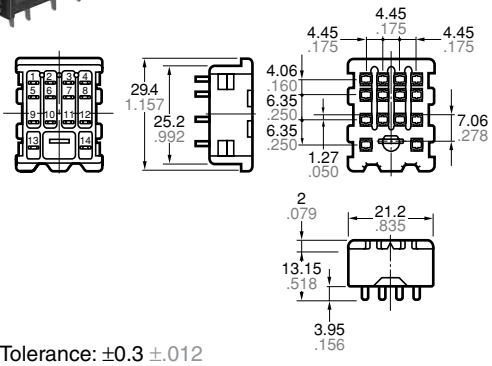


Tolerance: ±0.3 ±.012

HC4 - PC board socket for HJ relay (HC4-PS-K-H105)

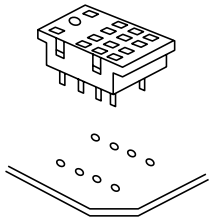
CAD Data

External dimensions

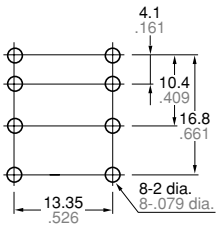


Tolerance: ±0.3 ±.012

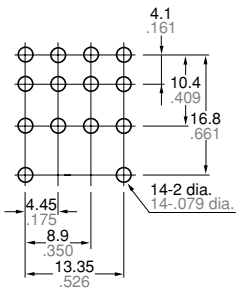
PC board pattern (BOTTOM VIEW)



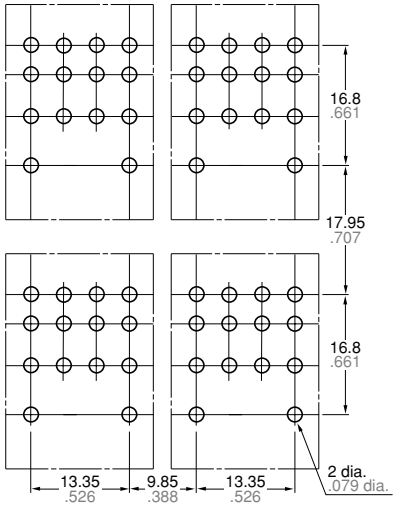
2 Form C



4 Form C



Chassis cutout (Side-by-side installation)



Tolerance: ±0.1 ±.004

With a relay mounted (HC2-PS-K-H105)

Hold-down clip is packaged with the socket. (Same product as PC board socket (Part No.: HC2-PS-K) for HC relay except that hold-down clip shape is different.)

3. Terminal socket

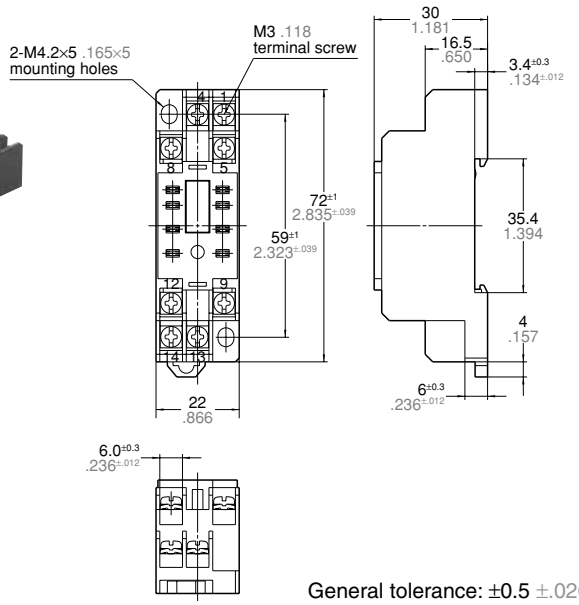
HJ2 terminal socket (HJ2-SFD)

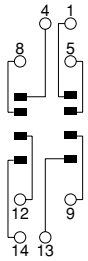
CAD Data

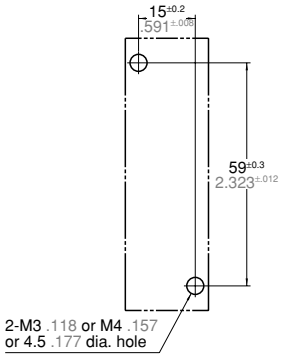
External dimensions

Schematic (Bottom view)

Mounting hole dimensions







General tolerance: ±0.5 ±.020

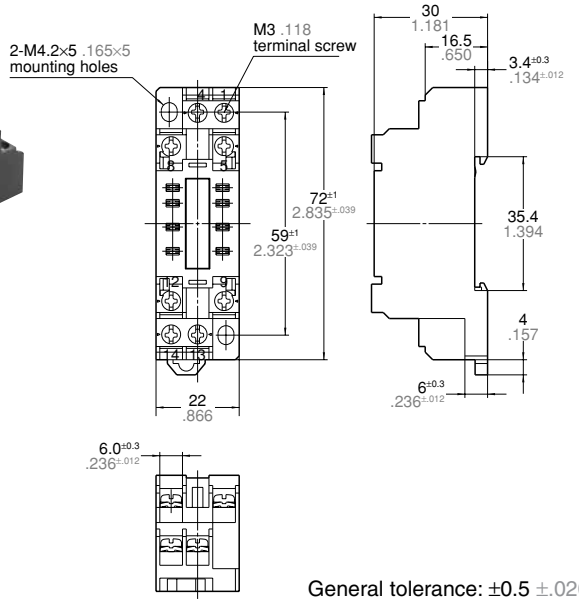
HJ2 terminal socket (Finger protect type) (HJ2-SFD-S)

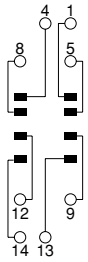
CAD Data

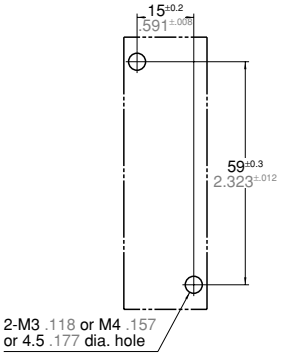
External dimensions

Schematic (Bottom view)

Mounting hole dimensions







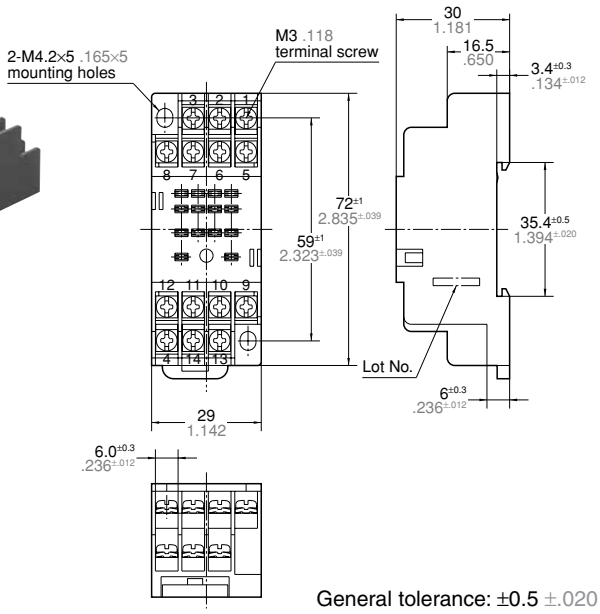
General tolerance: ±0.5 ±.020

Note: Round type terminal is unable to attach.

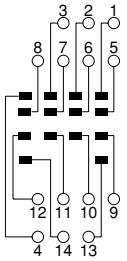
HJ4 terminal socket (HJ4-SFD)

CAD Data

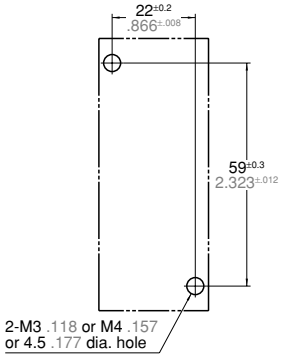
External dimensions



Schematic (Bottom view)



Mounting hole dimensions

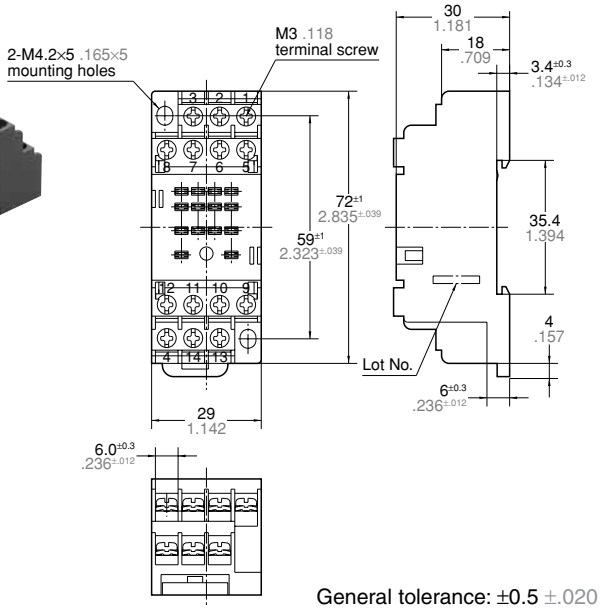


General tolerance: ±0.5 ±.020

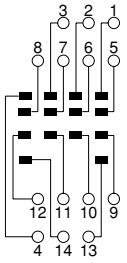
HJ4 terminal socket (Finger protect type) (HJ4-SFD-S)

CAD Data

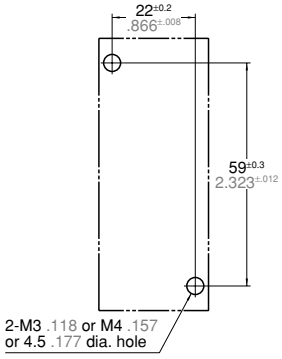
External dimensions



Schematic (Bottom view)



Mounting hole dimensions



General tolerance: ±0.5 ±.020

Note: Round type terminal is unable to attach.