



Standard type



Amber sealed type



Keep (Latching) relay



With diode type

FEATURES

1. Long track record means reliable quality.
2. Can provide switching across the range from low to high level power loads (100 μ A to 10 A).
3. Rich lineup includes relays with LED, with diode, and high-capacity types.
4. UL, CSA approval is standard
Compliance also with Japanese Electrical Appliance and Material Control Law.




TYPICAL APPLICATIONS

Suitable for factory automation equipment and automotive devices

1. Control panels, power supply equipment, molding equipment, machine tools, welding equipment, agricultural equipment, etc.
2. Office equipment, automatic vending machines, telecommunications equipment, disaster prevention equipment, copiers, measuring devices, medical equipment, amusement devices, etc.
3. All types of household appliance

TYPES

HC Relay

Type	Contact arrangement	Contact arrangement	 Plug-in terminal type		 PC board terminal type		 Top mounting type (TM type)	Remarks
			Without LED	With LED	Without LED	With LED		
Standard type	Single side stable	1 Form C	A	A	A	A	A	
		2 Form C	A	A	A	A	A	
		3 Form C	A	A	A	A	A	
		4 Form C	A	A	A	A	A	
	Bifurcated (Twin)	4 Form C	A	A	A	A	A	
Amber sealed type HC relay	Single side stable	1 Form C	A	A	A	A	A	
		2 Form C	A	A	A	A	A	
		4 Form C	A	A	A	A	A	
	Bifurcated (Twin)	4 Form C	A	A	A	A	A	
HC keep (latching) relay	Single side stable	2 Form C	A (With operating indication)	—	A (With operating indication)	—	—	
DC type with surge absorbing diode	Single side stable	1 Form C	A	A	—	—	—	Amber sealed type also available
		2 Form C	A	A	—	—	—	
		3 Form C	A	A	—	—	—	
		4 Form C	A	A	—	—	—	
	Bifurcated (Twin)	4 Form C	A	A	—	—	—	
AC type with surge absorbing CR circuit	Single side stable	1 Form C	A	A	—	—	—	17 mm higher than standard type
		2 Form C	A	A	—	—	—	
		3 Form C	A	A	—	—	—	
		4 Form C	A	A	—	—	—	
	Bifurcated (Twin)	4 Form C	A	A	—	—	—	

A: Available

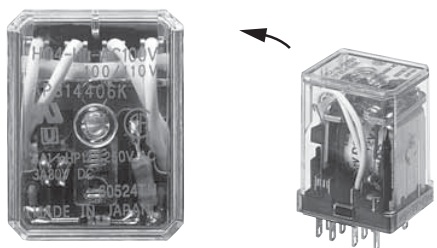
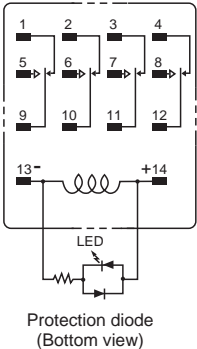
Notes: 1. HC relays with ground terminals also available.

2. HC relays with 0.9 mm wide PC board terminals also available.

HC RELAY CONTACT ARRANGEMENT

Type	Single side stable contact	4-pole bifurcated (twin) contact
Part number	HC□	HC4D
Features	Suitable for high-capacity load switching Standard type HC relays have high single-contact capacity; 1 Form C: 10 A 2 Form C and 3 Form C: 7 A 4 Form C: 5 A	Bifurcated (twin) contact ensures high contact reliability Suitable for low level loads Minimum switching capability: 100 μA 100m V DC (reference value)

LED INDICATION TYPE

Type	With LED indication type	
Part number	HC□-HL	
Features	LED lights up when relay is operating Inspection and detection of trouble is easy. LEDs are green for DC types and red for AC types. All types are available with LED indication.	 <p>■ LED colors indicate the type of relay: red for AC type and green for DC type.</p>  <p>Protection diode (Bottom view)</p>

HC RELAY SERIES PRODUCT TYPES

Type	Amber sealed type HC relay	HC keep (Latching) relay	HC relay with diode type (for DC)
Part number	HC□-E	HC2K	HC□-□-□V-D
Features	Relay is completely sealed with resin. Provides high reliability in adverse surroundings. Suitable for use in dusty conditions or where organic gases are present	Magnetic latching relay Suitable for nominal operating power saving of operating circuits and for memory circuits Has operating indication (mechanical indicator).	Has built-in diode to absorb surge when the coil goes to the off state (for DC type). Suitable for protecting relay driver circuits and for noise suppression Diode characteristics: Reverse breakdown voltage 1,000 V, Forward current 1 A
Type	HC relay with CR circuit (for AC)	—	—
Part number	HC□-□-□V-R	—	—
Features	Has built-in CR circuit to absorb surge when the coil goes to the off state (for AC). Relay with CR circuit is 17 mm higher than standard type relay.	—	—

4-pole bifurcated (twin) type available
Relay with LED indication available

FEATURES

1. Long track record means reliable quality.

2. Can provide switching across the range from low to high level power loads (100 μ A to 10 A).

3. Full range of types

Standard types include 1 Form C, 2 Form C, 3 Form C, 4 Form C, 4-pole bifurcated (twin), plug-in type, PC board type, and TM type.

4. HC relay with LED indication type also available

5. UL, CSA approval is standard

Compliance also with Japanese Electrical Appliance and Material Control Law.

2. Office equipment, automatic

vending machines,

telecommunications equipment,

disaster prevention equipment,

copiers, measuring devices, medical

equipment, amusement devices, etc.

3. All types of household appliance

About Cd-free contacts

We have introduced Cadmium free type products to reduce Environmental Hazardous Substances. (The suffix "F" should be added to the part number. The Suffix "F" is required only for 1 Form C, 2 Form C, 3 Form C contact type. The 4 Form C and 4 Form C bifurcated (twin) contact type is originally cadmium-free, the suffix "F" is not required.)

Please replace parts containing Cadmium with Cadmium-free products and evaluate them with your actual application before use because the life of a relay depends on the contact material and load.



Plug-in type



PC board type



TM type

TYPICAL APPLICATIONS

Suitable for factory automation equipment and automotive devices

1. Control panels, power supply equipment, molding equipment, machine tools, welding equipment, agricultural equipment, etc.

ORDERING INFORMATION

Contact arrangement

- 1: 1 Form C
- 2: 2 Form C
- 3: 3 Form C
- 4: 4 Form C
- 4D: Bifurcated contact (twin)

Terminal arrangement

- H: Plug-in type
- HL: Plug-in with LED indication
- HP: PC board type
- HPL: PC board with LED indication
- HTM: TM type

Coil voltage

AC 6, 12, 24, 48, 100 (100/110), 120 (110/120), 200 (200/220), 240 (220/240) V
 DC 6, 12, 24, 48, 100 (100/110) V

Contact material

Contact arrangement	Contact material	Ag alloy (cadmium-free)	AgNi type
1 Form C		F	
2 Form C		F	
3 Form C		F	
4 Form C			Nil
Bifurcated contact (twin)			Nil

Notes: UL/CSA approved type is standard.

Please inquire about VDE (1 Form C, 2 Form C, and 4 Form C only) and TV-3 (1 Form C and 2 Form C only) approved products.

HC - - -

TYPES

1) Plug-in type

Coil voltage	1 Form C	2 Form C	3 Form C	4 Form C	4 Form C (twin)
	Part No.	Part No.	Part No.	Part No.	Part No.
6V AC	HC1-H-AC6V-F	HC2-H-AC6V-F	HC3-H-AC6V-F	HC4-H-AC6V	HC4D-H-AC6V
12V AC	HC1-H-AC12V-F	HC2-H-AC12V-F	HC3-H-AC12V-F	HC4-H-AC12V	HC4D-H-AC12V
24V AC	HC1-H-AC24V-F	HC2-H-AC24V-F	HC3-H-AC24V-F	HC4-H-AC24V	HC4D-H-AC24V
48V AC	HC1-H-AC48V-F	HC2-H-AC48V-F	HC3-H-AC48V-F	HC4-H-AC48V	HC4D-H-AC48V
100/110V AC	HC1-H-AC100V-F	HC2-H-AC100V-F	HC3-H-AC100V-F	HC4-H-AC100V	HC4D-H-AC100V
110/120V AC	HC1-H-AC120V-F	HC2-H-AC120V-F	HC3-H-AC120V-F	HC4-H-AC120V	HC4D-H-AC120V
200/220V AC	HC1-H-AC200V-F	HC2-H-AC200V-F	HC3-H-AC200V-F	HC4-H-AC200V	HC4D-H-AC200V
220/240V AC	HC1-H-AC240V-F	HC2-H-AC240V-F	HC3-H-AC240V-F	HC4-H-AC240V	HC4D-H-AC240V
6V DC	HC1-H-DC6V-F	HC2-H-DC6V-F	HC3-H-DC6V-F	HC4-H-DC6V	HC4D-H-DC6V
12V DC	HC1-H-DC12V-F	HC2-H-DC12V-F	HC3-H-DC12V-F	HC4-H-DC12V	HC4D-H-DC12V
24V DC	HC1-H-DC24V-F	HC2-H-DC24V-F	HC3-H-DC24V-F	HC4-H-DC24V	HC4D-H-DC24V
48V DC	HC1-H-DC48V-F	HC2-H-DC48V-F	HC3-H-DC48V-F	HC4-H-DC48V	HC4D-H-DC48V
100/110V DC	HC1-H-DC100V-F	HC2-H-DC100V-F	HC3-H-DC100V-F	HC4-H-DC100V	HC4D-H-DC100V

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

2) Plug-in type (with LED indication)

Coil voltage	1 Form C	2 Form C	3 Form C	4 Form C	4 Form C (twin)
	Part No.	Part No.	Part No.	Part No.	Part No.
6V AC	HC1-HL-AC6V-F	HC2-HL-AC6V-F	HC3-HL-AC6V-F	HC4-HL-AC6V	HC4D-HL-AC6V
12V AC	HC1-HL-AC12V-F	HC2-HL-AC12V-F	HC3-HL-AC12V-F	HC4-HL-AC12V	HC4D-HL-AC12V
24V AC	HC1-HL-AC24V-F	HC2-HL-AC24V-F	HC3-HL-AC24V-F	HC4-HL-AC24V	HC4D-HL-AC24V
100/110V AC	HC1-HL-AC100V-F	HC2-HL-AC100V-F	HC3-HL-AC100V-F	HC4-HL-AC100V	HC4D-HL-AC100V
110/120V AC	HC1-HL-AC120V-F	HC2-HL-AC120V-F	HC3-HL-AC120V-F	HC4-HL-AC120V	HC4D-HL-AC120V
200/220V AC	HC1-HL-AC200V-F	HC2-HL-AC200V-F	HC3-HL-AC200V-F	HC4-HL-AC200V	HC4D-HL-AC200V
220/240V AC	HC1-HL-AC240V-F	HC2-HL-AC240V-F	HC3-HL-AC240V-F	HC4-HL-AC240V	HC4D-HL-AC240V
6V DC	HC1-HL-DC6V-F	HC2-HL-DC6V-F	HC3-HL-DC6V-F	HC4-HL-DC6V	HC4D-HL-DC6V
12V DC	HC1-HL-DC12V-F	HC2-HL-DC12V-F	HC3-HL-DC12V-F	HC4-HL-DC12V	HC4D-HL-DC12V
24V DC	HC1-HL-DC24V-F	HC2-HL-DC24V-F	HC3-HL-DC24V-F	HC4-HL-DC24V	HC4D-HL-DC24V
48V DC	HC1-HL-DC48V-F	HC2-HL-DC48V-F	HC3-HL-DC48V-F	HC4-HL-DC48V	HC4D-HL-DC48V
100/110V DC	HC1-HL-DC100V-F	HC2-HL-DC100V-F	HC3-HL-DC100V-F	HC4-HL-DC100V	HC4D-HL-DC100V

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

3) PC board type

Coil voltage	1 Form C	2 Form C	3 Form C	4 Form C	4 Form C (twin)
	Part No.	Part No.	Part No.	Part No.	Part No.
6V AC	HC1-HP-AC6V-F	HC2-HP-AC6V-F	HC3-HP-AC6V-F	HC4-HP-AC6V	HC4D-HP-AC6V
12V AC	HC1-HP-AC12V-F	HC2-HP-AC12V-F	HC3-HP-AC12V-F	HC4-HP-AC12V	HC4D-HP-AC12V
24V AC	HC1-HP-AC24V-F	HC2-HP-AC24V-F	HC3-HP-AC24V-F	HC4-HP-AC24V	HC4D-HP-AC24V
48V AC	HC1-HP-AC48V-F	HC2-HP-AC48V-F	HC3-HP-AC48V-F	HC4-HP-AC48V	HC4D-HP-AC48V
100/110V AC	HC1-HP-AC100V-F	HC2-HP-AC100V-F	HC3-HP-AC100V-F	HC4-HP-AC100V	HC4D-HP-AC100V
110/120V AC	HC1-HP-AC120V-F	HC2-HP-AC120V-F	HC3-HP-AC120V-F	HC4-HP-AC120V	HC4D-HP-AC120V
200/220V AC	HC1-HP-AC200V-F	HC2-HP-AC200V-F	HC3-HP-AC200V-F	HC4-HP-AC200V	HC4D-HP-AC200V
220/240V AC	HC1-HP-AC240V-F	HC2-HP-AC240V-F	HC3-HP-AC240V-F	HC4-HP-AC240V	HC4D-HP-AC240V
6V DC	HC1-HP-DC6V-F	HC2-HP-DC6V-F	HC3-HP-DC6V-F	HC4-HP-DC6V	HC4D-HP-DC6V
12V DC	HC1-HP-DC12V-F	HC2-HP-DC12V-F	HC3-HP-DC12V-F	HC4-HP-DC12V	HC4D-HP-DC12V
24V DC	HC1-HP-DC24V-F	HC2-HP-DC24V-F	HC3-HP-DC24V-F	HC4-HP-DC24V	HC4D-HP-DC24V
48V DC	HC1-HP-DC48V-F	HC2-HP-DC48V-F	HC3-HP-DC48V-F	HC4-HP-DC48V	HC4D-HP-DC48V
100/110V DC	HC1-HP-DC100V-F	HC2-HP-DC100V-F	HC3-HP-DC100V-F	HC4-HP-DC100V	HC4D-HP-DC100V

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

Note: Please add "-31" before "-F" in the part number when ordering the PC board type 0.9 mm width terminal (ex) HC1-HP-AC6V-31-F.

4) PC board type (with LED indication)

Coil voltage	1 Form C	2 Form C	3 Form C	4 Form C	4 Form C (twin)
	Part No.	Part No.	Part No.	Part No.	Part No.
6V AC	HC1-HPL-AC6V-F	HC2-HPL-AC6V-F	HC3-HPL-AC6V-F	HC4-HPL-AC6V	HC4D-HPL-AC6V
12V AC	HC1-HPL-AC12V-F	HC2-HPL-AC12V-F	HC3-HPL-AC12V-F	HC4-HPL-AC12V	HC4D-HPL-AC12V
24V AC	HC1-HPL-AC24V-F	HC2-HPL-AC24V-F	HC3-HPL-AC24V-F	HC4-HPL-AC24V	HC4D-HPL-AC24V
100/110V AC	HC1-HPL-AC100V-F	HC2-HPL-AC100V-F	HC3-HPL-AC100V-F	HC4-HPL-AC100V	HC4D-HPL-AC100V
110/120V AC	HC1-HPL-AC120V-F	HC2-HPL-AC120V-F	HC3-HPL-AC120V-F	HC4-HPL-AC120V	HC4D-HPL-AC120V
200/220V AC	HC1-HPL-AC200V-F	HC2-HPL-AC200V-F	HC3-HPL-AC200V-F	HC4-HPL-AC200V	HC4D-HPL-AC200V
6V DC	HC1-HPL-DC6V-F	HC2-HPL-DC6V-F	HC3-HPL-DC6V-F	HC4-HPL-DC6V	HC4D-HPL-DC6V
12V DC	HC1-HPL-DC12V-F	HC2-HPL-DC12V-F	HC3-HPL-DC12V-F	HC4-HPL-DC12V	HC4D-HPL-DC12V
24V DC	HC1-HPL-DC24V-F	HC2-HPL-DC24V-F	HC3-HPL-DC24V-F	HC4-HPL-DC24V	HC4D-HPL-DC24V
48V DC	HC1-HPL-DC48V-F	HC2-HPL-DC48V-F	HC3-HPL-DC48V-F	HC4-HPL-DC48V	HC4D-HPL-DC48V
100/110V DC	HC1-HPL-DC100V-F	HC2-HPL-DC100V-F	HC3-HPL-DC100V-F	HC4-HPL-DC100V	HC4D-HPL-DC100V

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

Note: Please add "-31" before "-F" in the part number when ordering the PC board type 0.9 mm width terminal (ex) HC1-HPL-AC6V-31-F.

5) TM type

Coil voltage	1 Form C	2 Form C	3 Form C	4 Form C	4 Form C (twin)
	Part No.	Part No.	Part No.	Part No.	Part No.
6V AC	HC1-HTM-AC6V-F	HC2-HTM-AC6V-F	HC3-HTM-AC6V-F	HC4-HTM-AC6V	HC4D-HTM-AC6V
12V AC	HC1-HTM-AC12V-F	HC2-HTM-AC12V-F	HC3-HTM-AC12V-F	HC4-HTM-AC12V	HC4D-HTM-AC12V
24V AC	HC1-HTM-AC24V-F	HC2-HTM-AC24V-F	HC3-HTM-AC24V-F	HC4-HTM-AC24V	HC4D-HTM-AC24V
48V AC	HC1-HTM-AC48V-F	HC2-HTM-AC48V-F	HC3-HTM-AC48V-F	HC4-HTM-AC48V	HC4D-HTM-AC48V
100/110V AC	HC1-HTM-AC100V-F	HC2-HTM-AC100V-F	HC3-HTM-AC100V-F	HC4-HTM-AC100V	HC4D-HTM-AC100V
110/120V AC	HC1-HTM-AC120V-F	HC2-HTM-AC120V-F	HC3-HTM-AC120V-F	HC4-HTM-AC120V	HC4D-HTM-AC120V
200/220V AC	HC1-HTM-AC200V-F	HC2-HTM-AC200V-F	HC3-HTM-AC200V-F	HC4-HTM-AC200V	HC4D-HTM-AC200V
6V DC	HC1-HTM-DC6V-F	HC2-HTM-DC6V-F	HC3-HTM-DC6V-F	HC4-HTM-DC6V	HC4D-HTM-DC6V
12V DC	HC1-HTM-DC12V-F	HC2-HTM-DC12V-F	HC3-HTM-DC12V-F	HC4-HTM-DC12V	HC4D-HTM-DC12V
24V DC	HC1-HTM-DC24V-F	HC2-HTM-DC24V-F	HC3-HTM-DC24V-F	HC4-HTM-DC24V	HC4D-HTM-DC24V
48V DC	HC1-HTM-DC48V-F	HC2-HTM-DC48V-F	HC3-HTM-DC48V-F	HC4-HTM-DC48V	HC4D-HTM-DC48V
100/110V DC	HC1-HTM-DC100V-F	HC2-HTM-DC100V-F	HC3-HTM-DC100V-F	HC4-HTM-DC100V	HC4D-HTM-DC100V

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

RATING

1. Coil data

1) AC coils (50/60Hz)

Type	Nominal coil voltage	Pick-up voltage (at 20°C 68°F)	Drop-out voltage (at 20°C 68°F)	Nominal coil current [±20%] (at 20°C 68°F)		Coil inductance		Nominal operating power		Max. allowable voltage (at 70°C 158°F)
				50Hz	60Hz	N.C. condition	N.O. condition	50Hz	60Hz	
Standard	6V AC	80%V or less of nominal voltage (Initial)	30%V or more of nominal voltage (Initial)	224mA	200mA	0.078H	0.074H	1.3VA	1.2VA	110%V of nominal voltage
	12V AC			111mA	100mA	0.312H	0.295H	1.3VA	1.2VA	
	24V AC			56mA	50mA	1.243H	1.181H	1.3VA	1.2VA	
	48V AC			28mA	25mA	4.974H	4.145H	1.3VA	1.2VA	
	100/110V AC			13.4/14.7mA	12/13.2mA	23.75H	20.63H	1.3VA	1.2VA	
	110/120V AC			12.2/13.5mA	10.9/11.9mA	27.19H	25.57H	1.3VA	1.2VA	
200/220V AC	6.7/7.4mA	6/6.6mA	85.98H	81.76H	1.3VA	1.2VA				

Notes: 1. The relay operates in a range of 80% to 110% V of the voltage rating, but ideally, in consideration of temporary voltage fluctuations, it should be operated at the rated voltage. In particular, for AC operation, if the applied voltage drops to 80% V or more below the rated voltage, humming will occur and a large current will flow leading possibly to coil burnout.

2. The maximum allowable voltage is the maximum voltage fluctuation value for the coil power supply. This value is not a permissible value for continuous operation. (This value differs depending on the ambient temperature. Please contact us for details.)

2) DC coils

Type	Nominal coil voltage	Pick-up voltage (at 20°C 68°F)	Drop-out voltage (at 20°C 68°F)	Nominal coil current [±10%] (at 20°C 68°F)	Coil resistance [±10%] (at 20°C 68°F)	Nominal operating power	Max. allowable voltage (at 70°C 158°F)
Standard	6V DC	80%V or less of nominal voltage (Initial)	10%V or more of nominal voltage (Initial)	150mA	40Ω	0.9W	110%V of nominal voltage
	12V DC			75mA	160Ω	0.9W	
	24V DC			37mA	650Ω	0.9W	
	48V DC			18.5mA	2,600Ω	0.9W	
	100/110V DC			10/11mA	10,000Ω	1.0W	

Notes: 1. The coil resistance for DC operation is the value measured when the coil temperature is 20°C 68°F. Compensate ±0.4% for every ±1°C change in temperature.

2. The relay operates in a range of 80% to 110% V of the voltage rating, but ideally, in consideration of temporary voltage fluctuations, it should be operated at the rated voltage.

3. For use with 200 V DC, connect a 10 KΩ (5W) resistor, in series, to the 100 V DC relay.

4. The maximum allowable impress voltage is the maximum voltage fluctuation value for the coil power supply. This value is not a permissible value for continuous operation. (This value differs depending on the ambient temperature. Please contact us for details.)

2. Specifications

Characteristics	Item	Specifications				
Contact	Arrangement	1 Form C	2 Form C	3 Form C	4 Form C	4 Form C (twin)
	Contact pressure	Approx. 0.294N{30gf}	Approx. 0.147N{15gf}	Approx. 0.147N{15gf}	Approx. 0.098N{10gf}	Approx. 0.127N{13gf}
	Initial contact resistance, max	Max. 30 mΩ (By voltage drop 6 V DC 1A)				
	Contact material	Ag alloy (cd free) + Au flash			AgNi type + Au clad	
Rating	Nominal switching capacity (resistive load)	10A 250V AC	7A 250V AC	7A 250V AC	5A 250V AC	3A 250V AC
	Max. switching power (resistive load)	2,500VA	1,750VA	1,750VA	1,250VA	750VA
	Max. switching voltage	250VAC				
	Max. switching current	10A	7A	7A	5A	3A
	Nominal operating power	AC (50Hz): 1.3VA, AC (60Hz): 1.2VA, DC: 0.9 to 1.1W				
	Min. switching capacity (Reference value)*1	1mA 1V DC				100μA 1V DC
Electrical characteristics	Insulation resistance (Initial)	Min. 1,000MΩ (at 500V DC) Measurement at same location as "Initial breakdown voltage" section.				
	Breakdown voltage (Initial)	Between open contacts	700 Vrms for 1min. (Detection current: 10mA.)			
		Between contact sets	700 Vrms for 1min. (Detection current: 10mA.)			
		Between contact and coil	2,000 Vrms for 1min. (Detection current: 10mA.)			
	Temperature rise (at 70°C 158°F)	Max. 80°C (By resistive method, nominal voltage)				
	Operate time (at 20°C 68°F)*2	Max. 20ms (Nominal voltage applied to the coil, excluding contact bounce time.)				
Release time (at 20°C 68°F)*2	Max. 20ms (Nominal voltage applied to the coil, excluding contact bounce time.) (without diode)					
Mechanical characteristics	Shock resistance	Functional	Min. 196 m/s ² (Half-wave pulse of sine wave: 11 ms; detection time: 10μs.)			
		Destructive	Min. 980 m/s ² (Half-wave pulse of sine wave: 6 ms.)			
	Vibration resistance	Functional	10 to 55 Hz at double amplitude of 1 mm (Detection time: 10μs.)			
		Destructive	10 to 55 Hz at double amplitude of 2 mm			
Expected life	Mechanical	Min. 5×10 ⁷ : AC coil type (at 180 cpm); Min. 10 ⁸ : DC coil type (at 180 cpm)				
	Electrical (resistive load)	Min. 2×10 ⁵ (at 20 cpm)	Min. 2×10 ⁵ (at 20 cpm)	Min. 10 ⁵ (at 20 cpm)	Min. 2×10 ⁵ (at 20 cpm)	Min. 2×10 ⁵ (at 20 cpm)
Conditions	Conditions for operation, transport and storage*3	Ambient temperature: -50°C to +70°C -58°F to +158°F (without LED); -50°C to +60°C -58°F to +140°F (with LED) Humidity: 5 to 85% R.H. (Not freezing and condensing at low temperature)				
	Max. Operating speed	20 cpm (at max. rating)				
Unit weight		Approx. 30g 1.06 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.

*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 operation ambient temperature limit is the maximum temperature that can satisfy the coil temperature rise value. Refer to "6. Usage, Storage and Transport Conditions" in **AMBIENT ENVIRONMENT** section in **Relay Technical Information**.

3. Switching capacity and expected life

1) Electrical (at 20 cpm)

Load	AC				DC		Expected life
	Resistive (cos φ = 1)		Inductive (cos φ ≅ 0.4)		Resistive	Inductive	
Voltage	125V AC	250V AC	125V AC	250V AC	30V DC	30V DC	
1 Form C	10A	10A	5A	3A	—	—	Min. 2×10 ⁵
	7A	7A	3A	2.5A	3A	1A	Min. 5×10 ⁵
	5A	5A	2A	1.5A	—	—	Min. 10 ⁶
2 Form C	7A	7A	3.5A	2A	—	—	Min. 2×10 ⁵
	5A	5A	2.5A	1.5A	3A	0.6A	Min. 5×10 ⁵
	3A	3A	1.5A	1A	—	—	Min. 10 ⁶
3 Form C	7A	7A	—	—	—	—	Min. 10 ⁵
	—	—	3.5A	2A	—	—	Min. 2×10 ⁵
	5A	5A	—	—	3A	0.4A	Min. 5×10 ⁵
4 Form C	5A	5A	2A	1A	—	—	Min. 2×10 ⁵
	3A	3A	1A	0.8A	3A	0.4A	Min. 5×10 ⁵
	2A	2A	0.5A	0.4A	—	—	Min. 10 ⁶
4 Form C (twin)	3A	3A	1A	0.8A	3A	—	Min. 2×10 ⁵

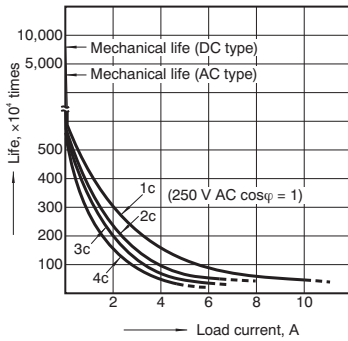
2) Mechanical (at 180 cpm)

Min. 5×10⁷ (AC coil type); Min. 10⁸ (DC coil type)

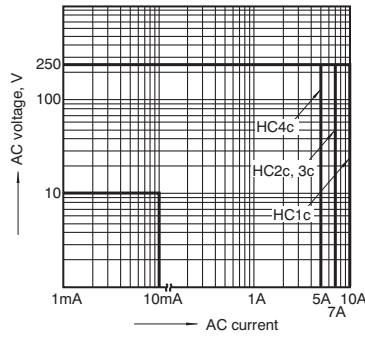
REFERENCE DATA

1. Life curve

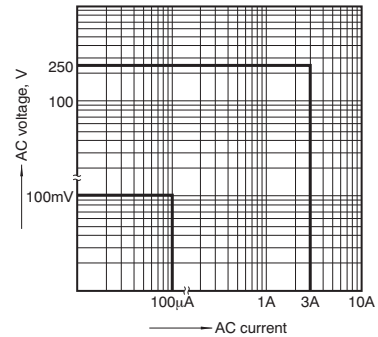
Load: 250 V AC resistive load



2.-(1) Switching capacity range (single contact type)

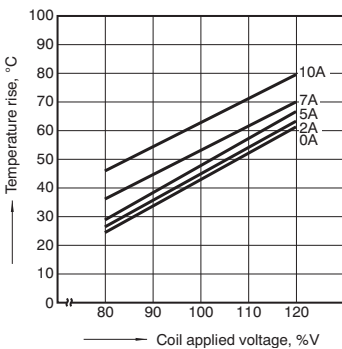


2.-(2) Switching capacity range (4-pole bifurcated (twin))



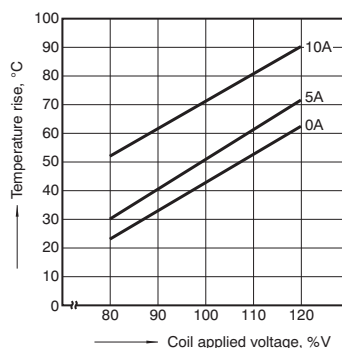
3.-(1) Coil temperature rise (1 Form C, AC type)

Measured portion: Inside the coil
Ambient temperature: 25°C 77°F (See note.)



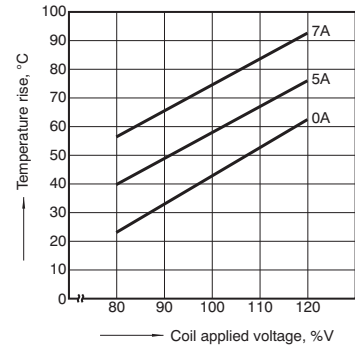
3.-(2) Coil temperature rise (2 Form C, AC type)

Measured portion: Inside the coil
Ambient temperature: 30°C 86°F (See note.)



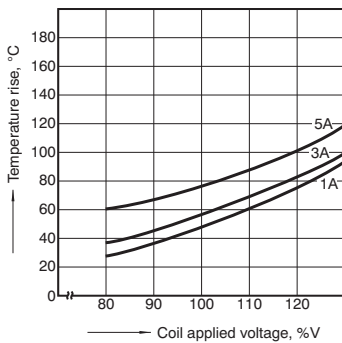
3.-(3) Coil temperature rise (3 Form C, AC type)

Measured portion: Inside the coil
Ambient temperature: 18°C 64°F (See note.)



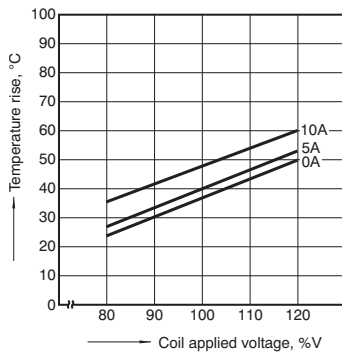
3.-(4) Coil temperature rise (4 Form C, AC type)

Measured portion: Inside the coil
Ambient temperature: 15 to 21°C 59 to 70°F (See note.)



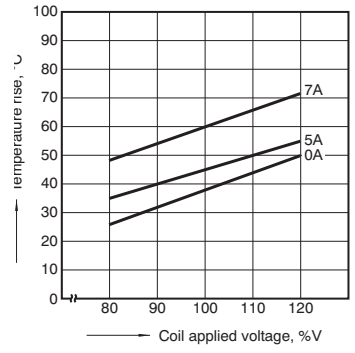
3.-(5) Coil temperature rise (1 Form C, DC type)

Measured portion: Inside the coil
Ambient temperature: 29°C 84°F



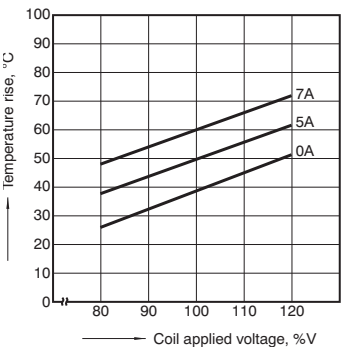
3.-(6) Coil temperature rise (2 Form C, DC type)

Measured portion: Inside the coil
Ambient temperature: 29°C 84°F



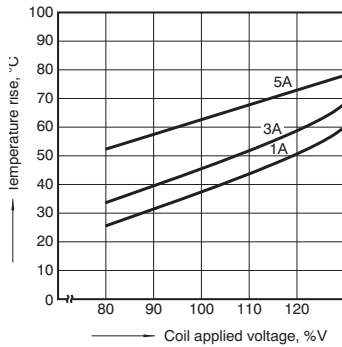
3.-(7) Coil temperature rise (3 Form C, DC type)

Measured portion: Inside the coil
Ambient temperature: 29°C 84°F



3.-(8) Coil temperature rise (4 Form C, DC type)

Measured portion: Inside the coil
Ambient temperature: 17 to 18°C 62 to 64°F



When the nominal voltage is applied to AC 120 or 240 V coil types respectively, the figures of coil temperature rise increase by approx. 10 degrees to the ones shown on each graph.

DIMENSIONS(mm inch)

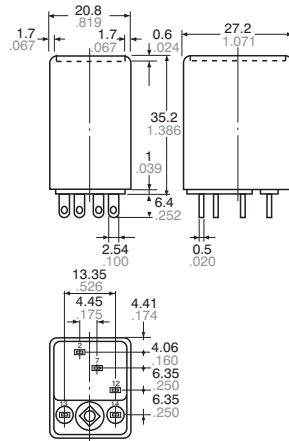
Interested in CAD data? You can obtain CAD data for all products with a **CAD Data** mark from [your local Panasonic Electric Works representative](#).

1. Plug-in type

CAD Data



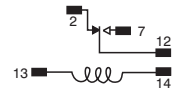
1 Form C type External dimensions



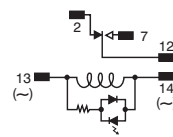
General tolerance: $\pm 0.3 \pm 0.12$

Schematic (Bottom view)

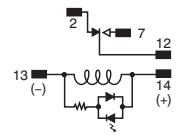
Standard type



LED AC type



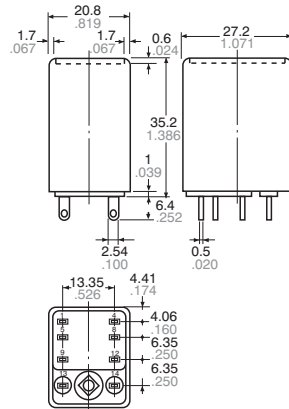
LED DC type



CAD Data



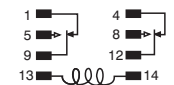
2 Form C type External dimensions



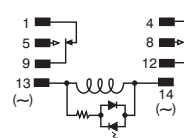
General tolerance: $\pm 0.3 \pm 0.12$

Schematic (Bottom view)

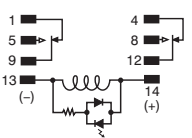
Standard type



LED AC type



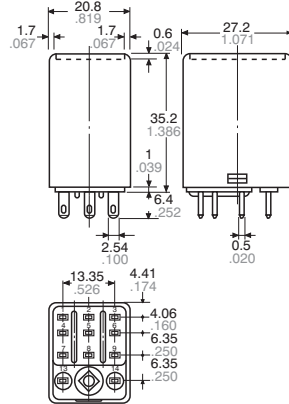
LED DC type



CAD Data



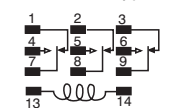
3 Form C type External dimensions



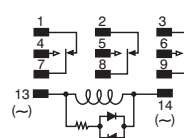
General tolerance: $\pm 0.3 \pm 0.12$

Schematic (Bottom view)

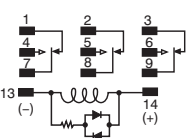
Standard type



LED AC type



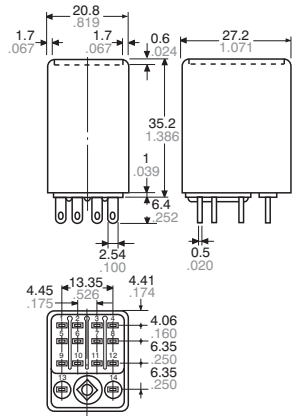
LED DC type



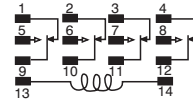
CAD Data



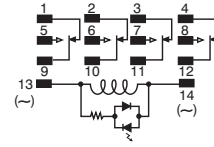
4 Form C and 4-pole bifurcated (twin) types
External dimensions



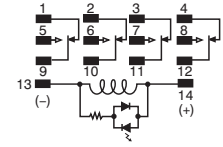
Standard type



LED AC type



LED DC type



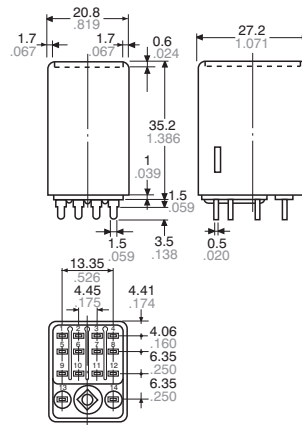
General tolerance: $\pm 0.3 \pm .012$
Schematic (Bottom view)

2. PC board type

CAD Data



4 Form C type External dimensions



The diagrams show the external dimensions of the 4 Form C and 4-pole bifurcated (twin) types. For 1 Form C, 2 Form C, and 3 Form C, see diagrams at plug-in types (only the terminals are different). Types with 0.9 mm terminal width are also available.

General tolerance: $\pm 0.3 \pm .012$

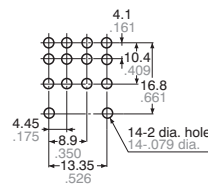
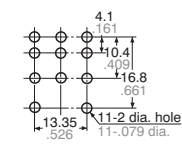
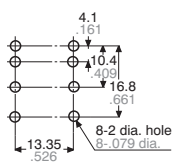
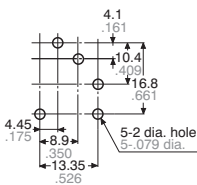
PC board pattern

1 Form C

2 Form C

3 Form C

4 Form C



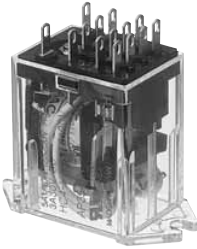
Tolerance: $\pm 0.1 \pm .004$

Schematic

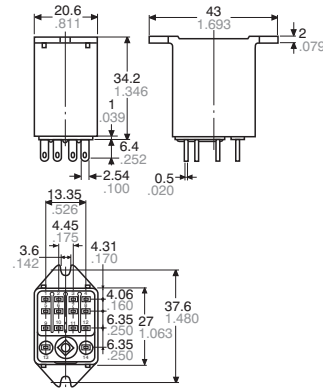
Same schematic as plug-in type HC relay

3. TM type

CAD Data



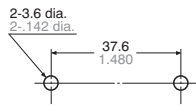
4 Form C type External dimensions



The diagrams show the external dimensions of the 4 Form C and 4-pole bifurcated (twin) types. For 1 Form C, 2 Form C, and 3 Form C, see diagrams at plug-in types (only the terminals are different).

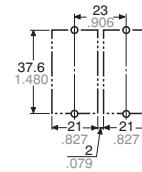
General tolerance: $\pm 0.3 \pm 0.12$

Chassis (Panel) cutout



Tolerance: $\pm 0.1 \pm 0.004$

Chassis (Panel) cutout in tandem mounting



Schematic

Same schematic as plug-in type HC relay
Be aware that there is no LED indicator with CR circuit and built-in diode types.

- Notes:
1. In mounting, use M3 screws and M3 washers.
 2. When mounting TM types, use washers to prevent damage or distortion to the polycarbonate cover.
 3. When tightening fixing screws, the optimum torque range should be 0.294 to 0.49 N-m, (3 to 5 kgf-cm). Moreover, use washers to prevent loosening.

For Cautions for Use, see [Relay Technical Information](#).

SEALED CONSTRUCTION
High reliability ensured in
challenging environments.

HC RELAYS
AMBER SEALED TYPE



Plug-in type



PC board type



TM type

FEATURES

1. Even when left for long periods in challenging environments, resistance values for the contacts remain stable.
 2. Compact yet compatible all over the world.
 3. Can be used in a wide variety of applications.
 4. With LED indication type also available
 5. External dimensions and mounting dimensions same as for HC relays
 6. UL, CSA approval is standard
- Connection accessories (terminal sockets and sockets) also shared.
Compliance also with Japanese Electrical Appliance and Material Control Law.

TYPICAL APPLICATIONS

1. Where surrounding atmosphere is bad
Cotton mills, flour mills, chemical works, traffic signals, etc.
2. In situations where high reliability is required
Safety equipment, alarms, copiers, telecommunications devices, computers, etc.

About Cd-free contacts

We have introduced Cadmium free type products to reduce Environmental Hazardous Substances. (The suffix "F" should be added to the part number. The Suffix "F" is required only for 1 Form C, 2 Form C contact type. The 4 Form C and 4 Form C bifurcated (twin) contact type is originally cadmium-free, the suffix "F" is not required.)
Please replace parts containing Cadmium with Cadmium-free products and evaluate them with your actual application before use because the life of a relay depends on the contact material and load.

ORDERING INFORMATION

HC - - - -

Contact arrangement

- 1: 1 Form C
- 2: 2 Form C
- 4: 4 Form C

E: Amber sealed type

ED: Amber sealed type bifurcated contact (twin) (Only 4 Form C)

Terminal arrangement

- H: Plug-in type
- L: Plug-in with LED indication
- HP: PC board type
- PL: PC board with LED indication
- HTM: TM type

Coil voltage

AC 6, 12, 24, 48, 100 (100/110), 120 (110/120), 200 (200/220), 240 (220/240) V
DC 6, 12, 24, 48, 100 (100/110) V

Contact material

Contact arrangement	Contact material	AgSnO ₂ type	AgNi type
1 Form C		F	
2 Form C		F	
4 Form C			Nil
4-pole bifurcated (twin)			Nil

Note: UL/CSA approved type is standard.

TYPES

1) Plug-in type

Coil voltage	1 Form C	2 Form C	4 Form C	4 Form C (twin)
	Part No.	Part No.	Part No.	Part No.
6V AC	HC1E-H-AC6V-F	HC2E-H-AC6V-F	HC4E-H-AC6V	HC4ED-H-AC6V
12V AC	HC1E-H-AC12V-F	HC2E-H-AC12V-F	HC4E-H-AC12V	HC4ED-H-AC12V
24V AC	HC1E-H-AC24V-F	HC2E-H-AC24V-F	HC4E-H-AC24V	HC4ED-H-AC24V
48V AC	HC1E-H-AC48V-F	HC2E-H-AC48V-F	HC4E-H-AC48V	HC4ED-H-AC48V
100/110V AC	HC1E-H-AC100V-F	HC2E-H-AC100V-F	HC4E-H-AC100V	HC4ED-H-AC100V
110/120V AC	HC1E-H-AC120V-F	HC2E-H-AC120V-F	HC4E-H-AC120V	HC4ED-H-AC120V
200/220V AC	HC1E-H-AC200V-F	HC2E-H-AC200V-F	HC4E-H-AC200V	HC4ED-H-AC200V
220/240V AC	HC1E-H-AC240V-F	HC2E-H-AC240V-F	HC4E-H-AC240V	HC4ED-H-AC240V
6V DC	HC1E-H-DC6V-F	HC2E-H-DC6V-F	HC4E-H-DC6V	HC4ED-H-DC6V
12V DC	HC1E-H-DC12V-F	HC2E-H-DC12V-F	HC4E-H-DC12V	HC4ED-H-DC12V
24V DC	HC1E-H-DC24V-F	HC2E-H-DC24V-F	HC4E-H-DC24V	HC4ED-H-DC24V
48V DC	HC1E-H-DC48V-F	HC2E-H-DC48V-F	HC4E-H-DC48V	HC4ED-H-DC48V
100/110V DC	HC1E-H-DC100V-F	HC2E-H-DC100V-F	HC4E-H-DC100V	HC4ED-H-DC100V

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

2) Plug-in type (With LED indication)

Coil voltage	1 Form C	2 Form C	4 Form C	4 Form C (twin)
	Part No.	Part No.	Part No.	Part No.
6V AC	HC1E-L-AC6V-F	HC2E-L-AC6V-F	HC4E-L-AC6V	HC4ED-L-AC6V
12V AC	HC1E-L-AC12V-F	HC2E-L-AC12V-F	HC4E-L-AC12V	HC4ED-L-AC12V
24V AC	HC1E-L-AC24V-F	HC2E-L-AC24V-F	HC4E-L-AC24V	HC4ED-L-AC24V
48V AC	HC1E-L-AC48V-F	HC2E-L-AC48V-F	HC4E-L-AC48V	HC4ED-L-AC48V
100/110V AC	HC1E-L-AC100V-F	HC2E-L-AC100V-F	HC4E-L-AC100V	HC4ED-L-AC100V
110/120V AC	HC1E-L-AC120V-F	HC2E-L-AC120V-F	HC4E-L-AC120V	HC4ED-L-AC120V
200/220V AC	HC1E-L-AC200V-F	HC2E-L-AC200V-F	HC4E-L-AC200V	HC4ED-L-AC200V
220/240V AC	HC1E-L-AC240V-F	HC2E-L-AC240V-F	HC4E-L-AC240V	HC4ED-L-AC240V
6V DC	HC1E-L-DC6V-F	HC2E-L-DC6V-F	HC4E-L-DC6V	HC4ED-L-DC6V
12V DC	HC1E-L-DC12V-F	HC2E-L-DC12V-F	HC4E-L-DC12V	HC4ED-L-DC12V
24V DC	HC1E-L-DC24V-F	HC2E-L-DC24V-F	HC4E-L-DC24V	HC4ED-L-DC24V
48V DC	HC1E-L-DC48V-F	HC2E-L-DC48V-F	HC4E-L-DC48V	HC4ED-L-DC48V
100/110V DC	HC1E-L-DC100V-F	HC2E-L-DC100V-F	HC4E-L-DC100V	HC4ED-L-DC100V

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

3) PC board type

Coil voltage	1 Form C	2 Form C	4 Form C	4 Form C (twin)
	Part No.	Part No.	Part No.	Part No.
6V AC	HC1E-HP-AC6V-F	HC2E-HP-AC6V-F	HC4E-HP-AC6V	HC4ED-HP-AC6V
12V AC	HC1E-HP-AC12V-F	HC2E-HP-AC12V-F	HC4E-HP-AC12V	HC4ED-HP-AC12V
24V AC	HC1E-HP-AC24V-F	HC2E-HP-AC24V-F	HC4E-HP-AC24V	HC4ED-HP-AC24V
48V AC	HC1E-HP-AC48V-F	HC2E-HP-AC48V-F	HC4E-HP-AC48V	HC4ED-HP-AC48V
100/110V AC	HC1E-HP-AC100V-F	HC2E-HP-AC100V-F	HC4E-HP-AC100V	HC4ED-HP-AC100V
110/120V AC	HC1E-HP-AC120V-F	HC2E-HP-AC120V-F	HC4E-HP-AC120V	HC4ED-HP-AC120V
200/220V AC	HC1E-HP-AC200V-F	HC2E-HP-AC200V-F	HC4E-HP-AC200V	HC4ED-HP-AC200V
220/240V AC	HC1E-HP-AC240V-F	HC2E-HP-AC240V-F	HC4E-HP-AC240V	HC4ED-HP-AC240V
6V DC	HC1E-HP-DC6V-F	HC2E-HP-DC6V-F	HC4E-HP-DC6V	HC4ED-HP-DC6V
12V DC	HC1E-HP-DC12V-F	HC2E-HP-DC12V-F	HC4E-HP-DC12V	HC4ED-HP-DC12V
24V DC	HC1E-HP-DC24V-F	HC2E-HP-DC24V-F	HC4E-HP-DC24V	HC4ED-HP-DC24V
48V DC	HC1E-HP-DC48V-F	HC2E-HP-DC48V-F	HC4E-HP-DC48V	HC4ED-HP-DC48V
100/110V DC	HC1E-HP-DC100V-F	HC2E-HP-DC100V-F	HC4E-HP-DC100V	HC4ED-HP-DC100V

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

Note: The PC board 0.9 mm width terminal type is also available, please part number. suffix "31" is needed when ordering (4 Form C, 4 Form C (twin) only)

4) PC board type (With LED indication)

Coil voltage	1 Form C	2 Form C	4 Form C	4 Form C (twin)
	Part No.	Part No.	Part No.	Part No.
6V AC	HC1E-PL-AC6V-F	HC2E-PL-AC6V-F	HC4E-PL-AC6V	HC4ED-PL-AC6V
12V AC	HC1E-PL-AC12V-F	HC2E-PL-AC12V-F	HC4E-PL-AC12V	HC4ED-PL-AC12V
24V AC	HC1E-PL-AC24V-F	HC2E-PL-AC24V-F	HC4E-PL-AC24V	HC4ED-PL-AC24V
48V AC	HC1E-PL-AC48V-F	HC2E-PL-AC48V-F	HC4E-PL-AC48V	HC4ED-PL-AC48V
100/110V AC	HC1E-PL-AC100V-F	HC2E-PL-AC100V-F	HC4E-PL-AC100V	HC4ED-PL-AC100V
110/120V AC	HC1E-PL-AC120V-F	HC2E-PL-AC120V-F	HC4E-PL-AC120V	HC4ED-PL-AC120V
200/220V AC	HC1E-PL-AC200V-F	HC2E-PL-AC200V-F	HC4E-PL-AC200V	HC4ED-PL-AC200V
220/240V AC	HC1E-PL-AC240V-F	HC2E-PL-AC240V-F	HC4E-PL-AC240V	HC4ED-PL-AC240V
6V DC	HC1E-PL-DC6V-F	HC2E-PL-DC6V-F	HC4E-PL-DC6V	HC4ED-PL-DC6V
12V DC	HC1E-PL-DC12V-F	HC2E-PL-DC12V-F	HC4E-PL-DC12V	HC4ED-PL-DC12V
24V DC	HC1E-PL-DC24V-F	HC2E-PL-DC24V-F	HC4E-PL-DC24V	HC4ED-PL-DC24V
48V DC	HC1E-PL-DC48V-F	HC2E-PL-DC48V-F	HC4E-PL-DC48V	HC4ED-PL-DC48V
100/110V DC	HC1E-PL-DC100V-F	HC2E-PL-DC100V-F	HC4E-PL-DC100V	HC4ED-PL-DC100V

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

Note: The PC board 0.9 mm width terminal type is also available, please part number. suffix "31" is needed when ordering (4 Form C, 4 Form C (twin) only)

5) TM type

Coil voltage	1 Form C	2 Form C	4 Form C	4 Form C (twin)
	Part No.	Part No.	Part No.	Part No.
6V AC	HC1E-HTM-AC6V-F	HC2E-HTM-AC6V-F	HC4E-HTM-AC6V	HC4ED-HTM-AC6V
12V AC	HC1E-HTM-AC12V-F	HC2E-HTM-AC12V-F	HC4E-HTM-AC12V	HC4ED-HTM-AC12V
24V AC	HC1E-HTM-AC24V-F	HC2E-HTM-AC24V-F	HC4E-HTM-AC24V	HC4ED-HTM-AC24V
48V AC	HC1E-HTM-AC48V-F	HC2E-HTM-AC48V-F	HC4E-HTM-AC48V	HC4ED-HTM-AC48V
100/110V AC	HC1E-HTM-AC100V-F	HC2E-HTM-AC100V-F	HC4E-HTM-AC100V	HC4ED-HTM-AC100V
110/120V AC	HC1E-HTM-AC120V-F	HC2E-HTM-AC120V-F	HC4E-HTM-AC120V	HC4ED-HTM-AC120V
200/220V AC	HC1E-HTM-AC200V-F	HC2E-HTM-AC200V-F	HC4E-HTM-AC200V	HC4ED-HTM-AC200V
220/240V AC	HC1E-HTM-AC240V-F	HC2E-HTM-AC240V-F	HC4E-HTM-AC240V	HC4ED-HTM-AC240V
6V DC	HC1E-HTM-DC6V-F	HC2E-HTM-DC6V-F	HC4E-HTM-DC6V	HC4ED-HTM-DC6V
12V DC	HC1E-HTM-DC12V-F	HC2E-HTM-DC12V-F	HC4E-HTM-DC12V	HC4ED-HTM-DC12V
24V DC	HC1E-HTM-DC24V-F	HC2E-HTM-DC24V-F	HC4E-HTM-DC24V	HC4ED-HTM-DC24V
48V DC	HC1E-HTM-DC48V-F	HC2E-HTM-DC48V-F	HC4E-HTM-DC48V	HC4ED-HTM-DC48V
100/110V DC	HC1E-HTM-DC100V-F	HC2E-HTM-DC100V-F	HC4E-HTM-DC100V	HC4ED-HTM-DC100V

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

RATING

1. Coil data (Common for standard types)

2. Specifications

Characteristics	Item	Specifications			
		1 Form C	2 Form C	4 Form C	4 Form C (twin)
Contact	Arrangement	1 Form C	2 Form C	4 Form C	4 Form C
	Nominal switching capacity (resistive load)	5A 250V AC	3A 250V AC	2A 250V AC	1A 250V AC
Rating	Max. switching power (resistive load)	1,250VA	700VA	500VA	250VA
	Max. switching voltage	250VAC	250VAC	250VAC	250VAC
	Max. switching current	5A	3A	2A	1A
	Min. switching capacity (Reference value)*1	1mA 100mV DC			100µA 100mV DC
Electrical characteristics	Temperature rise (at 60°C 140°F)	Max. 90°C (By resistive method, nominal voltage)			
Expected life	Electrical	Min. 2×10 ⁵ resistive load (at 20 cpm)			
Conditions	Conditions for operation, transport and storage*2	Ambient temperature: -40°C to +60°C -40°F to +140°F; Humidity: 5 to 85% R.H. (Not freezing and condensing at low temperature)			
	Ambient air pressure	760mmHg±20% (1,013mb±20%)			

Notes: Other specifications are same as standard types.

*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 The upper operation ambient temperature limit is the maximum temperature that can satisfy the coil temperature rise value. Refer to "6. Usage, Storage and Transport Conditions" in AMBIENT ENVIRONMENT section in Relay Technical Information.

3. Switching capacity and expected life

1) Electrical (at 20 cpm)

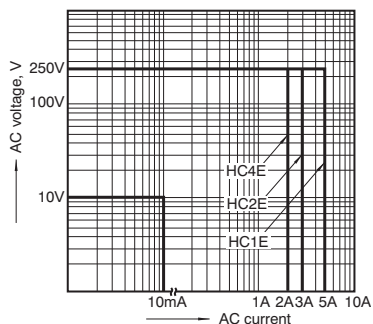
Load	AC				DC		Expected life
	Resistive (cos φ = 1)		Inductive (cos φ ≅ 0.4)		Resistive	Inductive	
	125V AC	250V AC	125V AC	250V AC	30V DC	30V DC	
HC1E	5A	5A	—	—	3A	1A	Min. 2×10 ⁵
HC2E	3A	3A	—	—	2A	1.7A	Min. 2×10 ⁵
HC4E	2A	2A	—	—	2A	0.6A	Min. 2×10 ⁵
HC4ED (4 Form C twin)	1A	1A	—	—	—	—	Min. 2×10 ⁵

2) Mechanical (at 180 cpm)

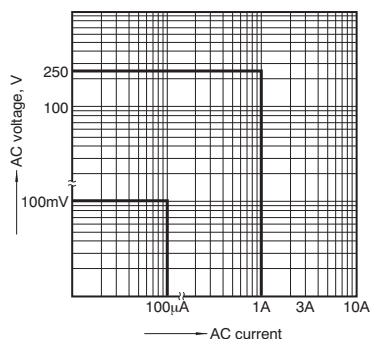
Min. 5×10⁷ (AC coil type); Min. 10⁸ (DC coil type)

REFERENCE DATA

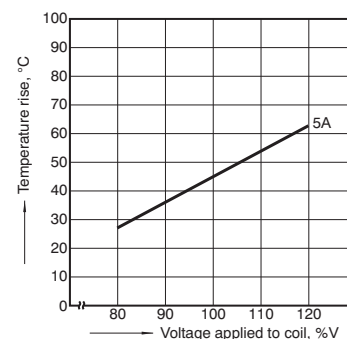
1.-(1) Switching capacity range
(single contact type)



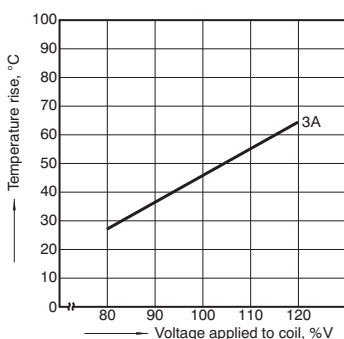
1.-(2) Switching capacity range
(4-pole bifurcated (twin))



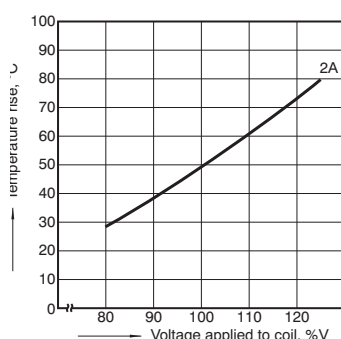
2.-(1) Coil temperature rise (1 Form C AC type)
Measured portion: Inside the coil
Ambient temperature: 30°C 86°F



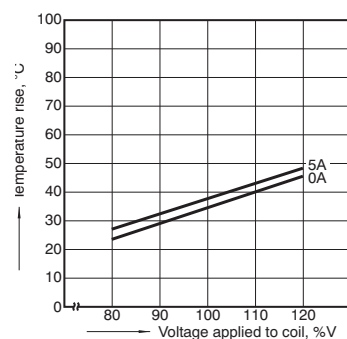
2.-(2) Coil temperature rise (2 Form C AC type)
Measured portion: Inside the coil
Ambient temperature: 30°C 86°F



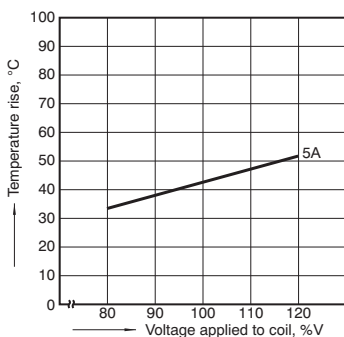
2.-(3) Coil temperature rise (4 Form C AC type)
Measured portion: Inside the coil
Ambient temperature: 30°C 86°F



2.-(4) Coil temperature rise (1 Form C DC type)
Measured portion: Inside the coil
Ambient temperature: 30°C 86°F



2.-(5) Coil temperature rise (2 Form C DC type)
Measured portion: Inside the coil
Ambient temperature: 30°C 86°F



Note: Coil temperature rise

When the nominal voltage is applied to AC 120 or 240 V coil types respectively, the figures of coil temperature rise increase by approx. 10 degrees to the ones shown on each graph.

DIMENSIONS

HC relays are unified to standard sizes.
Please refer to standard type information.

NOTES

When mounting TM types, use washers to prevent damage or distortion to the polycarbonate cover. When tightening fixing screws, the optimum torque range should be 0.294 to 0.49 N·m, (3 to 5 kgf·cm). If screws are over tightened, the cover may distort, resulting in poor sealing. Moreover, to prevent loosening, use washers.

For Cautions for Use, see [Relay Technical Information](#).



FEATURES

1. Energy-saving type
2. Wide range of applications in control circuits for industrial equipment and consumer devices.
3. Form factors same as for HC relays
4. With operation indicator
5. Can be used in a wide variety of applications.

About Cd-free contacts

We have introduced Cadmium free type products to reduce Environmental Hazardous Substances. (The suffix "F" should be added to the part number.) Please replace parts containing Cadmium with Cadmium-free products and evaluate them with your actual application before use because the life of a relay depends on the contact material and load.

TYPES

Plug-in type	PC board type
Part No.	Part No.
HC2K-AC6V-F	HC2K-P-AC6V-F
HC2K-AC12V-F	HC2K-P-AC12V-F
HC2K-AC24V-F	HC2K-P-AC24V-F
HC2K-AC48V-F	HC2K-P-AC48V-F
HC2K-AC100V-F	HC2K-P-AC100V-F
HC2K-DC6V-F	HC2K-P-DC6V-F
HC2K-DC12V-F	HC2K-P-DC12V-F
HC2K-DC24V-F	HC2K-P-DC24V-F
HC2K-DC48V-F	HC2K-P-DC48V-F
HC2K-DC100V-F	HC2K-P-DC100V-F

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

Notes: 1. Some materials and price vary. Please inquire for details.

2. Please refer to the standards chart for information on compliance with international standards.

RATING

1. Coil data

1) AC coils (50/60Hz)

Contact arrangement	Nominal coil voltage	Set voltage (at 20°C 68°F)	Reset voltage (at 20°C 68°F)	Nominal operating current [±10%] (at 20°C 68°F)		Coil inductance				Nominal operating power		Max. allowable voltage (at 50°C 122°F)
						Set coil		Reset coil				
						Set coil	Reset coil	N.C. condition	N.O. condition			
2 Form C	6V AC	80%V or less of nominal voltage (Initial)	80%V or less of nominal voltage (Initial)	206mA	103mA	—	—	—	—	1.23VA	0.62VA	110%V of nominal voltage
	12V AC			100mA	52mA	—	—	—	—	1.20VA	0.62VA	
	24V AC			51mA	21.4mA	—	—	—	—	1.22VA	0.51VA	
	48V AC			25.2mA	18.5mA	—	—	—	—	1.20VA	0.88VA	
	100V AC			13.3mA	7.1mA	—	—	—	—	1.33VA	0.71VA	

2) DC coils

Contact arrangement	Nominal coil voltage	Set voltage (at 20°C 68°F)	Reset voltage (at 20°C 68°F)	Nominal operating current [±10%] (at 20°C 68°F)		Coil resistance [±10%] (at 20°C 68°F)		Nominal operating power		Max. allowable voltage (at 50°C 122°F)
				Set coil	Reset coil	Set coil	Reset coil	Set coil	Reset coil	
2 Form C	6V DC	80%V or less of nominal voltage (Initial)	80%V or less of nominal voltage (Initial)	207mA	107mA	29Ω	56Ω	1.24W	0.64W	110%V of nominal voltage
	12V DC			100mA	52.2mA	120Ω	230Ω	1.20W	0.63W	
	24V DC			51.1mA	25.5mA	470Ω	941Ω	1.23W	0.61W	
	48V DC			25.3mA	13.7mA	1,897Ω	3,504Ω	1.21W	0.66W	
	100V DC			15.6mA	5.8mA	6,410Ω	17,241Ω	1.56W	0.58W	

Notes: 1. The allowable coil resistance range is ±10% when within 1,000Ω and ±15% when 1,000Ω or higher.
 2. The maximum allowable voltage is the maximum voltage fluctuation value for the coil power supply. This value is not a permissible value for continuous operation. (This value differs depending on the ambient temperature. Please contact us for details.)

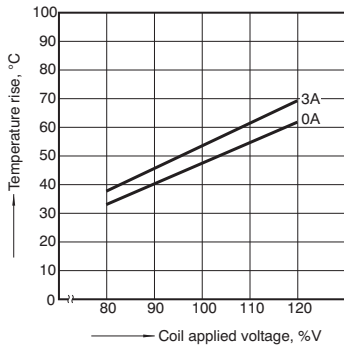
2. Specifications

Characteristics	Item	Specifications	
Contact	Contact pressure	Approx. 0.098N(10gf)	
	Initial contact resistance, max	Max. 50 mΩ (By voltage drop 6 V DC 1A)	
Rating	Nominal switching capacity (resistive load)	3A 250V AC	
	Max. switching power (resistive load)	750VA	
	Max. switching current	3A	
	Nominal operating power	Set coil: 1.20VA to 1.33VA; Reset coil: 0.51VA to 0.88VA	
Electrical characteristics	Min. switching capacity (Reference value)*1	100μA 100mV DC	
	Breakdown voltage (Initial)	Between contact and coil	1,500 Vrms for 1min. (initial)
	Temperature rise		Set coil: Max. 80°C; Reset coil: Max. 50°C (at nominal voltage)
	Set time/Reset time (at 20°C 68°F)		Approx. 20ms/30ms (at nominal voltage)
Mechanical characteristics	Shock resistance	Functional	Min. 98m/s ² (Half-wave pulse of sine wave: 11 ms; detection time: 10μs.)
Expected life	Mechanical		Min. 10 ⁷ (at 180 cpm)
	Electrical		Min. 2×10 ⁵ rated load (at 20 cpm)
Conditions	Ambient temperature		-40°C to +50°C -40°F to +122°F (Not freezing and condensing at low temperature)

Notes:*1This 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.Other specifications are same as standard types.

REFERENCE DATA

Coil temperature rise
 Tested sample: HC2K-DC12V, 2 pcs
 Measured portion: Inside the coil
 Ambient temperature: 28°C 82.4°F

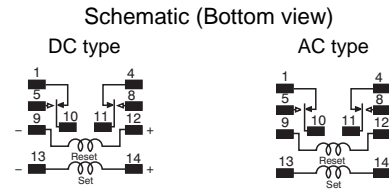
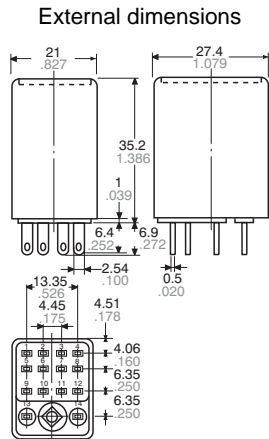


DIMENSIONS(mm inch)

Interested in CAD data? You can obtain CAD data for all products with a **CAD Data** mark from [your local Panasonic Electric Works representative](#).

Plug-in type (2 Form C)

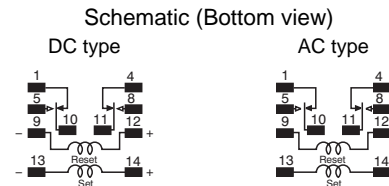
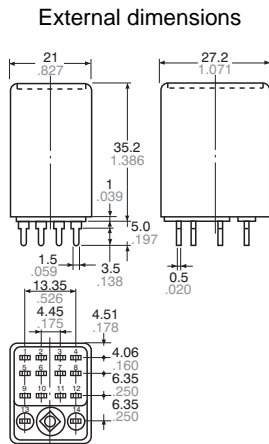
CAD Data



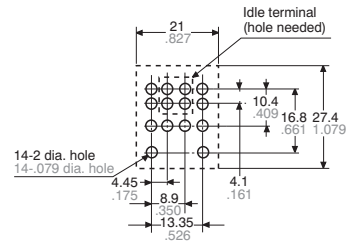
General tolerance: $\pm 0.3 \pm .012$

PC board type (2 Form C)

CAD Data



PC board pattern (Bottom view)



General tolerance: $\pm 0.3 \pm .012$

Tolerance: $\pm 0.1 \pm .004$

MOUNTING METHOD

The mounting method and mounting holes can all be made the same as for the 4 Form C HC relay terminal socket.

NOTES

1. The schematic differs from that in the standard type 4 Form C HC relay. Follow the schematic on the cover sticker.
2. Conform with the schematic for the DC type, which has a polarized coil.
3. Because retention characteristics vary according to the waveform of the voltage applied to the coil, do your best to avoid capacitor driving. In capacitor driving, use a capacitor of 300 μ F or more.

4. Ensure that the minimum pulse width of voltage applied to coil is greater than 150 ms.

For Cautions for Use, see [Relay Technical Information](#).

Has built-in diode
to absorb surge
For use in
semiconductor circuits

HC RELAY WITH DIODE



FEATURES

1. The built-in diode absorbs surge voltage arising when the coil goes to the off state (for DC type).

Diode characteristics;
Reverse breakdown voltage: 1,000V,
Forward current: 1A

2. With LED indicator type also available

3. UL, CSA approval is standard

Compliance also with Japanese Electrical Appliance and Material Control Law.

We have introduced Cadmium free type products to reduce Environmental Hazardous Substances. (The suffix "F" should be added to the part number. The Suffix "F" is required only for 1 Form C, 2 Form C, 3 Form C contact type. The 4 Form C and 4 Form C bifurcated (twin) contact type is originally cadmium-free, the suffix "F" is not required.)

Please replace parts containing Cadmium with Cadmium-free products and evaluate them with your actual application before use because the life of a relay depends on the contact material and load.

TYPICAL APPLICATIONS

Suitable for factory automation equipment and automotive devices

1. Control panels, power supply equipment, molding equipment, machine tools, welding equipment, agricultural equipment, etc.

2. Office equipment, automatic vending machines, telecommunications equipment, disaster prevention equipment, copiers, measuring devices, medical equipment, amusement devices, etc.

3. All types of household appliance About Cd-free contacts

TYPES

1) Plug-in type

Coil voltage	1 Form C	2 Form C	3 Form C	4 Form C	4 Form C (twin)
	Part No.	Part No.	Part No.	Part No.	Part No.
6V DC	HC1-DC6V-D-F	HC2-DC6V-D-F	HC3-DC6V-D-F	HC4-DC6V-D	HC4D-DC6V-D
12V DC	HC1-DC12V-D-F	HC2-DC12V-D-F	HC3-DC12V-D-F	HC4-DC12V-D	HC4D-DC12V-D
24V DC	HC1-DC24V-D-F	HC2-DC24V-D-F	HC3-DC24V-D-F	HC4-DC24V-D	HC4D-DC24V-D
48V DC	HC1-DC48V-D-F	HC2-DC48V-D-F	HC3-DC48V-D-F	HC4-DC48V-D	HC4D-DC48V-D
100/110V DC	HC1-DC100V-D-F	HC2-DC100V-D-F	HC3-DC100V-D-F	HC4-DC100V-D	HC4D-DC100V-D

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

2) Plug-in type (with LED indication)

Coil voltage	1 Form C	2 Form C	3 Form C	4 Form C	4 Form C (twin)
	Part No.	Part No.	Part No.	Part No.	Part No.
6V DC	HC1-L-DC6V-D-F	HC2-L-DC6V-D-F	HC3-L-DC6V-D-F	HC4-L-DC6V-D	HC4D-L-DC6V-D
12V DC	HC1-L-DC12V-D-F	HC2-L-DC12V-D-F	HC3-L-DC12V-D-F	HC4-L-DC12V-D	HC4D-L-DC12V-D
24V DC	HC1-L-DC24V-D-F	HC2-L-DC24V-D-F	HC3-L-DC24V-D-F	HC4-L-DC24V-D	HC4D-L-DC24V-D
48V DC	HC1-L-DC48V-D-F	HC2-L-DC48V-D-F	HC3-L-DC48V-D-F	HC4-L-DC48V-D	HC4D-L-DC48V-D
100/110V DC	HC1-L-DC100V-D-F	HC2-L-DC100V-D-F	HC3-L-DC100V-D-F	HC4-L-DC100V-D	HC4D-L-DC100V-D

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

HC

RATING

1. Coil data (Common for standard DC coil types)

2. Specifications

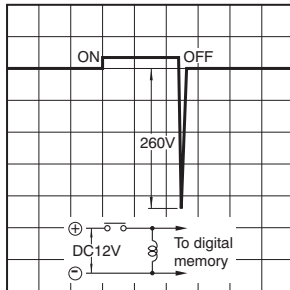
Characteristics	Item	Specifications
Conditions	Conditions for operation, transport and storage*	Ambient temperature: -50°C to +60°C -58°F to +140°F Humidity: 5 to 85% R.H. (Not freezing and condensing at low temperature)

Notes: Other specifications are same as standard types.

*The upper operation ambient temperature limit is the maximum temperature that can satisfy the coil temperature rise value. Refer to "6. Usage, Storage and Transport Conditions" in [AMBIENT ENVIRONMENT](#) section in [Relay Technical Information](#).

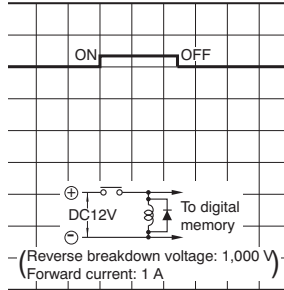
REFERENCE DATA

1.-(1) DC coil surge voltage waveform (without diode)



1.-(2) DC coil surge voltage waveform (with diode)

Diode characteristics;
Reverse breakdown voltage: 1,000V,
Forward current: 1A



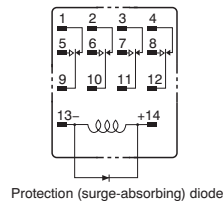
DIMENSIONS

Same dimensions as HC relay standard/
plug-in type

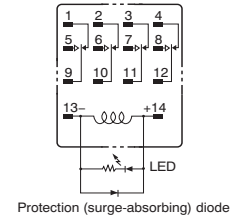


Schematic

Without LED indicator



With LED indicator



NOTES

1. Pay attention to the polarity.

2. Diode characteristics

Reverse breakdown voltage: 1,000V

Forward current: 1A

For Cautions for Use, see [Relay Technical Information](#).

Able to absorb surge voltage
in AC specification
CR circuit is built-in

HC RELAYS WITH CR



FEATURES

1. With CR circuits built in, surge voltage arising in the AC type when the coil goes to the off state is absorbed.
2. HC relay with LED indication type also available
3. UL, CSA approval is standard
Compliance also with Japanese Electrical Appliance and Material Control Law.

About Cd-free contacts

We have introduced Cadmium free type products to reduce Environmental Hazardous Substances. (The suffix "F" should be added to the part number. The Suffix "F" is required only for 1 Form C, 2 Form C, 3 Form C contact type. The 4 Form C and 4 Form C bifurcated (twin) contact type is originally cadmium-free, the suffix "F" is not required.) Please replace parts containing Cadmium with Cadmium-free products and evaluate them with your actual application before use because the life of a relay depends on the contact material and load.

TYPICAL APPLICATIONS

Suitable for factory automation equipment and automotive devices

1. Control panels, power supply equipment, molding equipment, machine tools, welding equipment, agricultural equipment, etc.
2. Office equipment, automatic vending machines, telecommunications equipment, disaster prevention equipment, copiers, measuring devices, medical equipment, amusement devices, etc.

TYPES

1) Plug-in type

Coil voltage	1 Form C	2 Form C	3 Form C	4 Form C	4 Form C (twin)
	Part No.	Part No.	Part No.	Part No.	Part No.
100/110V AC	HC1-AC100V-R-F	HC2-AC100V-R-F	HC3-AC100V-R-F	HC4-AC100V-R	HC4D-AC100V-R
110/120V AC	HC1-AC120V-R-F	HC2-AC120V-R-F	HC3-AC120V-R-F	HC4-AC120V-R	HC4D-AC120V-R
200/220V AC	HC1-AC200V-R-F	HC2-AC200V-R-F	HC3-AC200V-R-F	HC4-AC200V-R	HC4D-AC200V-R
220/240V AC	HC1-AC240V-R-F	HC2-AC240V-R-F	HC3-AC240V-R-F	HC4-AC240V-R	HC4D-AC240V-R

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

2) Plug-in type (with LED indication)

Coil voltage	1 Form C	2 Form C	3 Form C	4 Form C	4 Form C (twin)
	Part No.	Part No.	Part No.	Part No.	Part No.
100/110V AC	HC1-L-AC100V-R-F	HC2-L-AC100V-R-F	HC3-L-AC100V-R-F	HC4-L-AC100V-R	HC4D-L-AC100V-R
110/120V AC	HC1-L-AC120V-R-F	HC2-L-AC120V-R-F	HC3-L-AC120V-R-F	HC4-L-AC120V-R	HC4D-L-AC120V-R
200/220V AC	HC1-L-AC200V-R-F	HC2-L-AC200V-R-F	HC3-L-AC200V-R-F	HC4-L-AC200V-R	HC4D-L-AC200V-R
220/240V AC	HC1-L-AC240V-R-F	HC2-L-AC240V-R-F	HC3-L-AC240V-R-F	HC4-L-AC240V-R	HC4D-L-AC240V-R

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

RATING

1. Coil data (Common for standard AC coil types)

2. Specifications

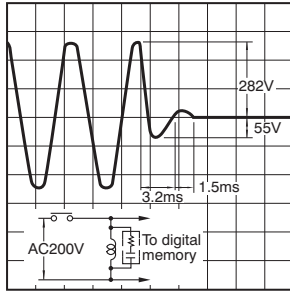
Characteristics	Item	Specifications
Electrical characteristics	Temperature rise	Max. 90°C (By resistive method, nominal voltage, rated current at 60°C)
Conditions	Conditions for operation, transport and storage*	Ambient temperature: -50°C to +60°C -58°F to +140°F Humidity: 5 to 85% R.H. (Not freezing and condensing at low temperature)

Notes: Other specifications are same as standard types.

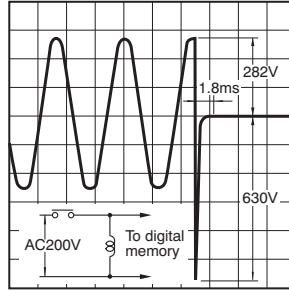
*The upper operation ambient temperature limit is the maximum temperature that can satisfy the coil temperature rise value. Refer to "6. Usage, Storage and Transport Conditions" in AMBIENT ENVIRONMENT section in Relay Technical Information.

REFERENCE DATA

1.-(1) AC coil surge voltage waveform
(with CR circuit)
Tested sample: HC4-AC200V-R



1.-(2) AC coil surge voltage waveform
(without CR circuit)
Tested sample: HC4-AC200V

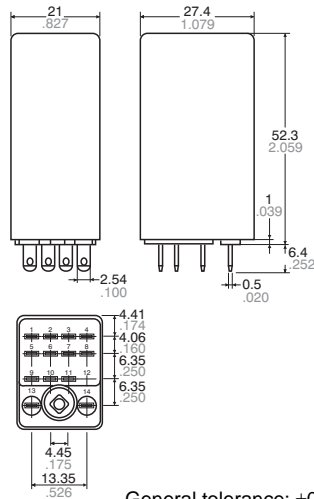


DIMENSIONS (Unit: mm inch)

Plug-in type



4 Form C External dimensions

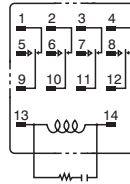


dimensions and schematic of the 4 Form C and 4-pole bifurcated (twin) types. For the 1 Form C, 2 Form C, and 3 Form C types, only the terminals differ. The dimensions of the terminal are the same as for standard type HC relays.

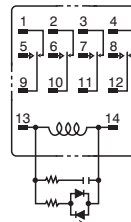
General tolerance: $\pm 0.3 \pm .012$

Schematic

Without LED indicator



With LED indicator



Diagrams show the external

Connection accessories

Connection accessories (terminal sockets and sockets) are the same as for standard type HC relays. To hold the relay in place, use the hold-down clip that is provided.

For Cautions for Use, see [Relay Technical Information](#).

HC RELAY SOCKETS

1. Plug-in type sockets, PC board type sockets, and wrapping type sockets are available for HC relays.
2. In the table below, the socket suitable for each type of HC relay is indicated by a black dot.
3. UL/CSA approval is standard.

4. A hold-down clip is included in the package.



The fixing method is the same as for HC sockets, ordinary HC terminal sockets and HL sockets.

HC/HL-LEAF-SPRING-MK

SOCKET SELECTOR CHART

Type	No. of pole	Item	Part No.	Applicable HC relay (Plug-in type)										
				Standard/Bifurcated contact (DC)				Amber				Keep relay		
				1 Form C	2 Form C	3 Form C	4 Form C	4 Form C (twin)	1 Form C	2 Form C	4 Form C		4 Form C (twin)	2 Form C
Plug-in	2-pole	HC2-socket	HC2-SS-K		•						•			
	1/2/4-pole (common)	HC4-socket	HC4-SS-K	•	•		•	•	•	•	•	•	•	•
PC board	1-pole	HC1-socket for PC board	HC1-PS-K	•					•					
	2-pole	HC2-socket for PC board	HC2-PS-K		•					•				
	3-pole	HC3-socket for PC board	HC3-PS-K		•	•				•				
	1/2/4-pole (common)	HC4-socket for PC board	HC4-PS-K	•	•		•	•	•	•	•	•	•	•
Wrapping	1/2/4-pole (common)	HC4-wrapping socket	HC4-WS-K	•	•		•	•	•	•	•	•	•	•

Notes: 1. Use the retainer that is shipped with the terminal socket.
2. UL/CSA approved type is standard (except for wrapping socket).

HC RELAY TERMINAL SOCKETS

1. Ordinary terminal sockets and terminal sockets for DIN rail assembly are available.
2. In the table below, the terminal socket suitable for each type of HC relay is indicated by a black dot.
3. UL/CSA approval is standard.
4. A hold-down clip is included in the package.



The fixing method is the same as for sockets.

HC/HL-LEAF-SPRING-MK

Ordinary terminal socket



The fixing method is the same as for the HC DIN rail terminal sockets and the HL DIN terminal sockets.

HC/HL-LEAF-SPRING-K

Terminal sockets for
DIN rail assembly

TERMINAL SOCKET SELECTOR CHART

Type	No. of pole	Item	Part No.	Packing quantity		Applicable HC relay (Plug-in type)								
						Standard/Bifurcated contact (DC)				Amber				Keep relay
						1 Form C	2 Form C	3 Form C	4 Form C	4 Form C (twin)	1 Form C	2 Form C	4 Form C	
For DIN rail	2-pole	HC2-slim type DIN terminal socket	HC2-SFD-S	20 pcs.	100 pcs.		•					•		
	2-pole	HC2-DIN	HC2-SFD-K	10 pcs.	100 pcs.		•					•		
	3-pole	HC3-DIN	HC3-SFD-K	5 pcs.	50 pcs.		•	•				•		
For general	1/2/4-pole (common)	HC4-DIN high terminal socket	HC4-SFD-K	10 pcs.	100 pcs.	•	•		•	•	•	•	•	•
	2-pole	HC2-terminal socket	HC2-SF-K	10 pcs.	100 pcs.		•					•		
	3-pole	HC3-high terminal socket	HC3-HSF-K	5 pcs.	50 pcs.		•	•				•		
	1/2/4-pole (common)	HC-high terminal socket	HC4-HSF-K	5 pcs.	50 pcs.	•	•		•	•	•	•	•	•

Notes: 1. Use the retainer that is shipped with the terminal socket.
 2. UL/CSA approved type is standard (except for HC4-TSF-K).
 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 7kgf-cm}.

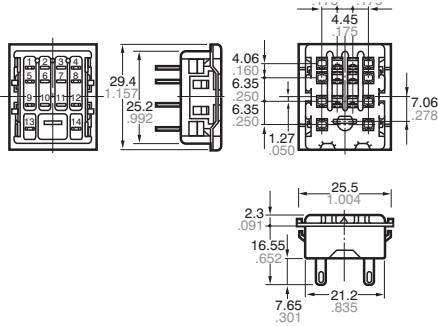
DIMENSIONS (Unit: mm inch)

1. Plug-in type sockets

HC2-Socket (HC2-SS-K)

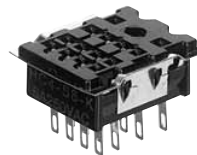


External dimensions

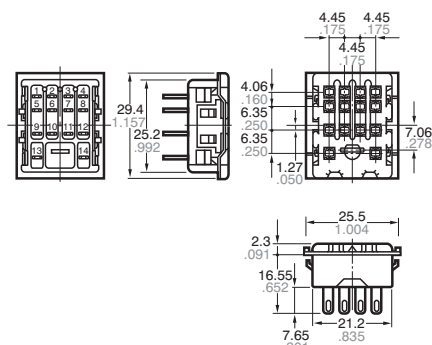


General tolerance: $\pm 0.3 \pm 0.012$

HC4-Socket (HC4-SS-K)

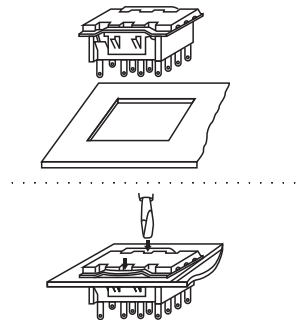


External dimensions

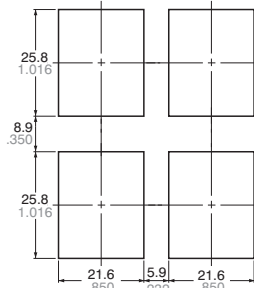


General tolerance: $\pm 0.3 \pm 0.012$

Mounting hole diagram



Side-by-side installation



General tolerance: $\pm 0.2 \pm 0.008$

With a relay mounted (HC2-SS-K)



Hold-down clip is packaged with the socket.

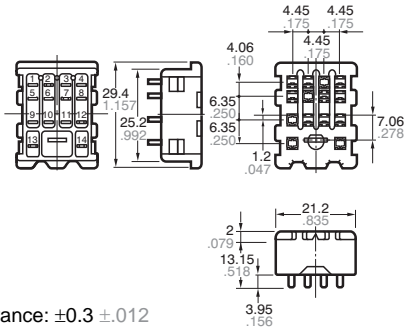
- Notes: 1. Applicable chassis board thickness is 1.0 to 2.0 mm.
 2. Installation is easy by inserting the socket from the top into the holes and by depressing the two down arrows on the retention fitting from the front.

2. PC board type sockets

HC1- PC board type socket (HC1-PS-K)



External dimensions

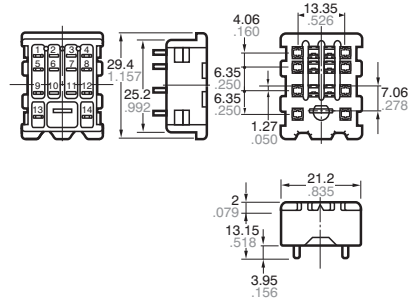


General tolerance: $\pm 0.3 \pm 0.12$

HC2- PC board type socket (HC2-PS-K)



External dimensions

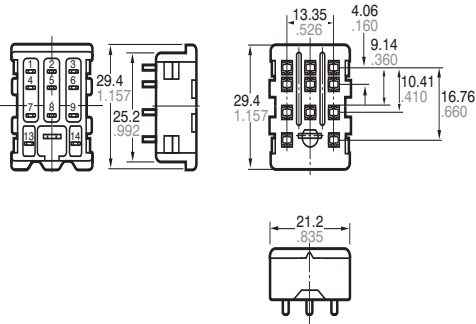


General tolerance: $\pm 0.3 \pm 0.12$

HC3- PC board type socket (HC3-PS-K)



External dimensions

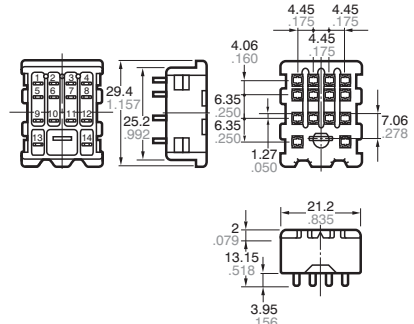


General tolerance: $\pm 0.3 \pm 0.12$

HC4- PC board type socket (HC4-PS-K)

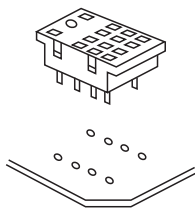


External dimensions



General tolerance: $\pm 0.3 \pm 0.12$

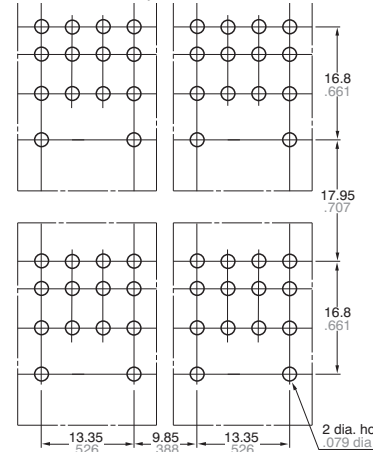
PC board pattern (Bottom view)



With a relay mounted

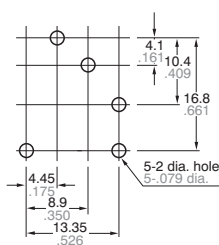


Side-by-side installation

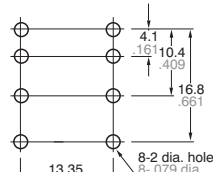


Hold-down clip is packaged with the socket.

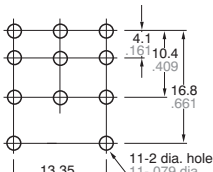
1 Form C



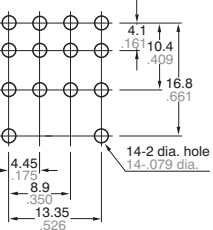
2 Form C



3 Form C



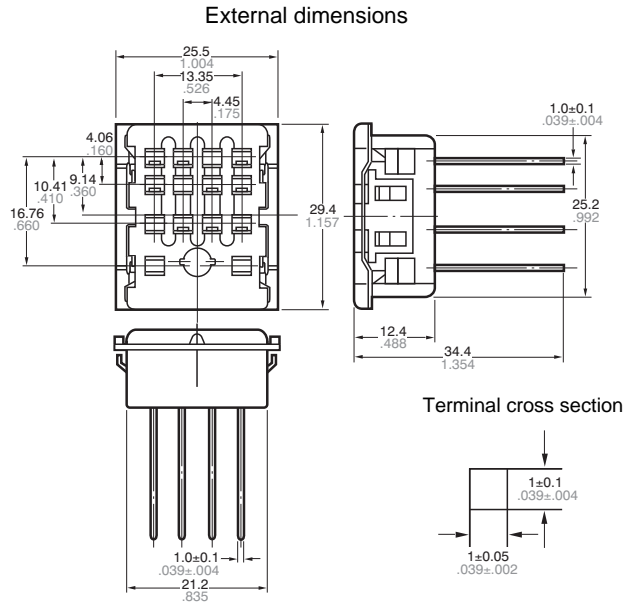
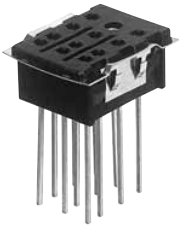
4 Form C



General tolerance: $\pm 0.2 \pm 0.008$

3. Wrapping type sockets

Standard wrapping type sockets (HC4-WS-K)



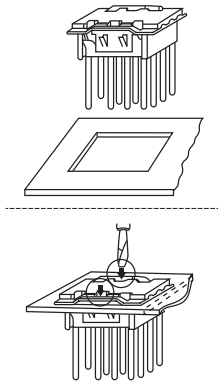
Hold-down clip
(Hold-down clip is packaged with the socket)



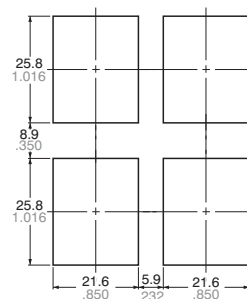
General tolerance: $\pm 0.3 \pm 0.12$

Note: The external and mounting dimensions are the same for 1-pole (HC1-WS-K), 2-pole (HC2-WS-K), and 3-pole (HC3-WS-K) types. Only the number of terminals varies.

Mounting hole diagram



Side-by-side installation

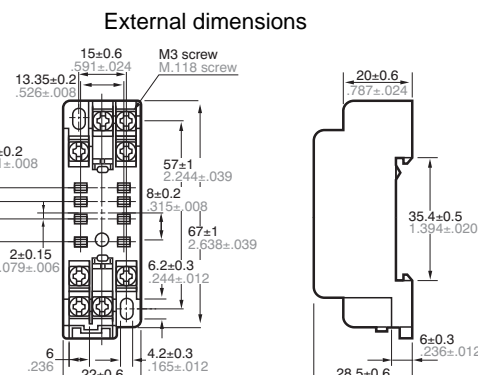
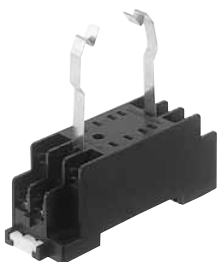


General tolerance: $\pm 0.2 \pm 0.008$

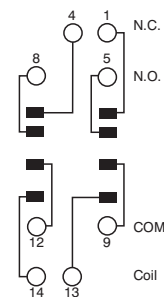
- Notes:
1. Applicable chassis board thickness is 1.0 to 2.0 mm.
 2. Installation is easy by inserting the socket from the top into the holes and by depressing the two down arrows on the retention fitting from the front.

4. Terminal sockets for DIN rail assembly

HC2-Slim type terminal sockets for DIN rail assembly (HC2-SFD-S)

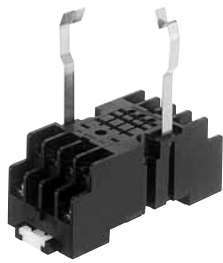


Schematic

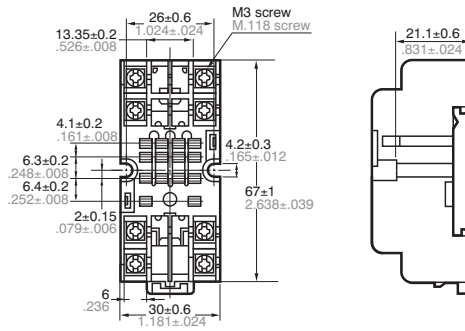


General tolerance: $\pm 0.5 \pm 0.020$

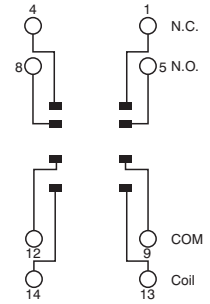
HC2-high terminal socket for DIN rail assembly (HC2-SFD-K)



External dimensions

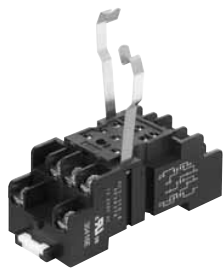


Schematic

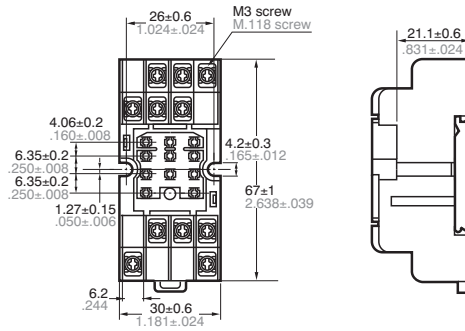


General tolerance: $\pm 0.5 \pm .020$

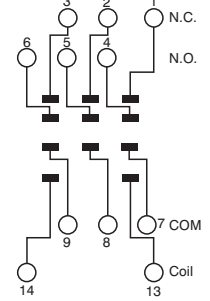
HC3-high terminal socket for DIN rail assembly (HC3-SFD-K)



External dimensions

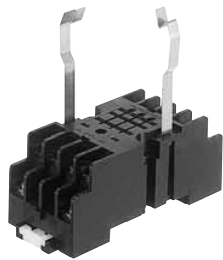


Schematic

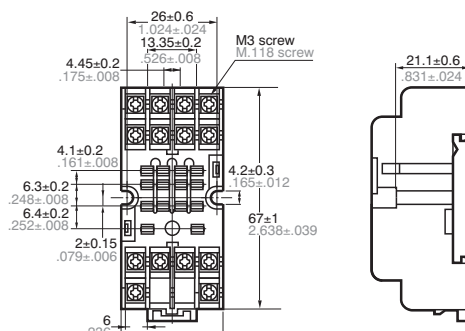


General tolerance: $\pm 0.5 \pm .020$

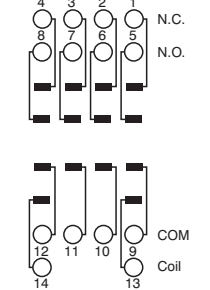
HC4-high terminal socket for DIN rail assembly (HC4-SFD-K)



External dimensions

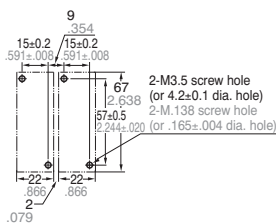


Schematic

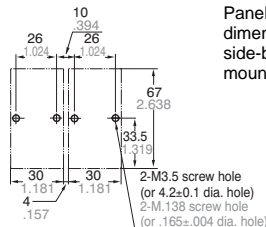


General tolerance: $\pm 0.5 \pm .020$

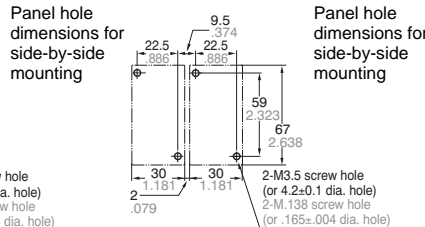
Mounting hole diagram
HC2-Slim type



HC2, HC3 and HC4



HC vertical type



General tolerance: $\pm 0.1 \pm .004$

With a relay mounted (HC4-SFD-K)

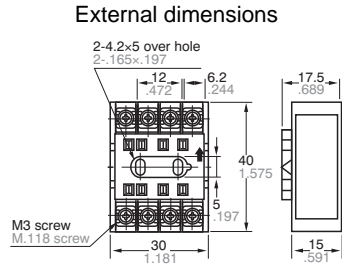


Hold-down clip is packaged with the terminal socket.

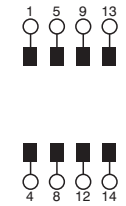
HC

5. Ordinary terminal sockets

HC2-terminal socket (HC2-SF-K for HC2)

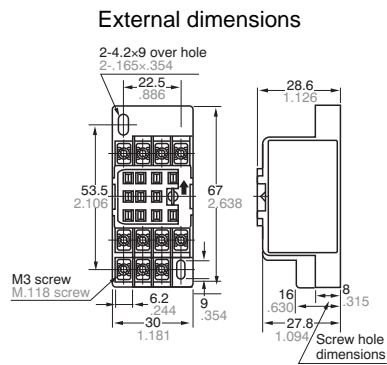


Schematic

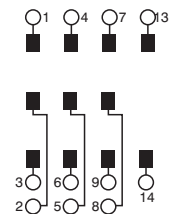


General tolerance: $\pm 0.5 \pm .020$

HC3-high terminal socket (HC3-HSF-K) suitable for both HC2 and HC3

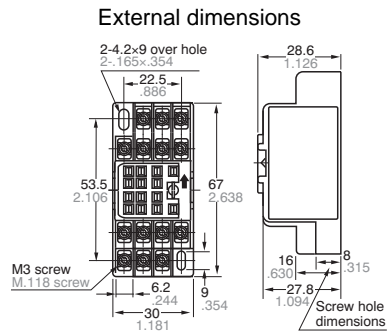
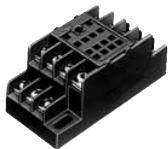


Schematic

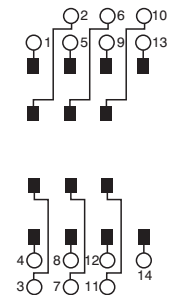


General tolerance: $\pm 0.5 \pm .020$

HC4-high terminal socket (HC4-HSF-K) suitable for HC 1, 2 and 4

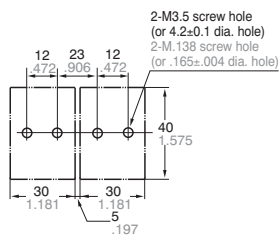


Schematic



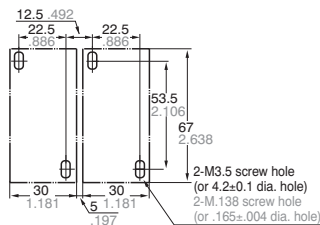
General tolerance: $\pm 0.5 \pm .020$

Mounting hole diagram
HC2-SF-K



Panel hole dimensions for side-by-side mounting

HC3-HSF-K and HC4-HSF-K



Panel hole dimensions for side-by-side mounting

General tolerance: $\pm 0.1 \pm .004$

With a relay mounted (HC2-SF-K)



Hold-down clip is packaged with the terminal socket.