

Panasonic ideas for life

FLAT/VERTICAL TYPE HIGH POWER BIFURCATED CONTACT

NC RELAYS





4 Form C Flat type 2 F

2 Form C Flat type





4 Form C Slim type (PC board)

2 Form C Slim type (PC board)

FEATURES

1. Compact, slim design
Use of high-performance flat
electromagnetic design achieves
10.9 mm .429 inch profile, flat type thin
package. Slim type, with width of
11.2 mm .441 inch, enables high-density
mounting on PC boards.

2. High reliability

Provides stable contact pressure needed for card lift-off contact driver method. The use of Ac clad twin contacts provides stable contact resistance and ensures high contact reliability.

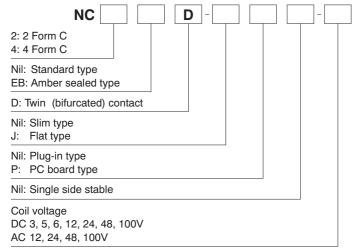
3. Compatible with all major safety standards

UL and CSA certified, and complies with Japanese Electrical Appliance and Material Control Law.

TYPICAL APPLICATIONS

- 1. Information processing and telecom equipment such as computers and terminal devices.
- 2. Gas hot air heating equipment and air conditioners.
- 3. Timer, temperature controller and other equipment that requires form factor reduction.
- 4. Transmission and measuring devices such as facsimile machines and electronic counting devices.
- 5. Control panels for industrial equipment such as machine tools, factory automation devices, and NC machines.

ORDERING INFORMATION



Notes: 1. UL/CSA approved type is standard.

Amber sealed types are sealed and filled with inert gas (nitrogen gas).Sealed construction with terminals, case and base sealed shut with sealing resin.

TYPES

<Standard type>

1. Flat type (PC board terminal)

Contact arrangement	Naminal sail valtage	Single side stable		
Contact arrangement	Nominal coil voltage	Part No.		
	12V AC	NC2D-JP-AC12V		
	24V AC	NC2D-JP-AC24V		
	48V AC	NC2D-JP-AC48V		
	100V AC	NC2D-JP-AC100V		
	3V DC	NC2D-JP-DC3V		
2 Form C	5V DC	NC2D-JP-DC5V		
	6V DC	NC2D-JP-DC6V		
	12V DC	NC2D-JP-DC12V		
	24V DC	NC2D-JP-DC24V		
	48V DC	NC2D-JP-DC48V		
	100V DC	NC2D-JP-DC100V		
	12V AC	NC4D-JP-AC12V		
	24V AC	NC4D-JP-AC24V		
	48V AC	NC4D-JP-AC48V		
	100V AC	NC4D-JP-AC100V		
	3V DC	NC4D-JP-DC3V		
4 Form C	5V DC	NC4D-JP-DC5V		
	6V DC	NC4D-JP-DC6V		
	12V DC	NC4D-JP-DC12V		
	24V DC	NC4D-JP-DC24V		
	48V DC	NC4D-JP-DC48V		
	100V DC	NC4D-JP-DC100V		

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

2. Slim type

1) Plug-in type

Contact arrangement	Nominal coil voltage	Single side stable		
Contact arrangement	Nominal con voltage	Part No.		
	12V AC	NC2D-AC12V		
	24V AC	NC2D-AC24V		
	48V AC	NC2D-AC48V		
	100V AC	NC2D-AC100V		
	3V DC	NC2D-DC3V		
2 Form C	5V DC	NC2D-DC5V		
	6V DC	NC2D-DC6V		
	12V DC	NC2D-DC12V		
	24V DC	NC2D-DC24V		
	48V DC	NC2D-DC48V		
	100V DC	NC2D-DC100V		
	12V AC	NC4D-AC12V		
	24V AC	NC4D-AC24V		
	48V AC	NC4D-AC48V		
	100V AC	NC4D-AC100V		
	3V DC	NC4D-DC3V		
4 Form C	5V DC	NC4D-DC5V		
	6V DC	NC4D-DC6V		
	12V DC	NC4D-DC12V		
	24V DC	NC4D-DC24V		
	48V DC	NC4D-DC48V		
	100V DC	NC4D-DC100V		

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

2) PC board type

		Single side stable		
Contact arrangement	Nominal coil voltage	Part No.		
	12V AC	NC2D-P-AC12V		
	24V AC	NC2D-P-AC24V		
	48V AC	NC2D-P-AC48V		
	100V AC	NC2D-P-AC100V		
	3V DC	NC2D-P-DC3V		
2 Form C	5V DC	NC2D-P-DC5V		
21011110	6V DC	NC2D-P-DC6V		
	12V DC	NC2D-P-DC12V		
	24V DC	NC2D-P-DC24V		
	48V DC	NC2D-P-DC48V		
•	100V DC	NC2D-P-DC100V		
	12V AC	NC4D-P-AC12V		
	24V AC	NC4D-P-AC24V		
	48V AC	NC4D-P-AC48V		
	100V AC	NC4D-P-AC100V		
•	3V DC	NC4D-P-DC3V		
4 Form C	5V DC	NC4D-P-DC5V		
•	6V DC	NC4D-P-DC6V		
•	12V DC	NC4D-P-DC12V		
•	24V DC	NC4D-P-DC24V		
•	48V DC	NC4D-P-DC48V		
•	100V DC	NC4D-P-DC100V		

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

<Amber type>

1. Flat type (PC board terminal)

Contact arrangement	Nominal coil voltage	Single side stable	
Contact arrangement	Nominal con voltage	Part No.	
	3V DC	NC2EBD-JP-DC3V	
	5V DC	NC2EBD-JP-DC5V	
	6V DC	NC2EBD-JP-DC6V	
2 Form C	12V DC	NC2EBD-JP-DC12V	
	24V DC	NC2EBD-JP-DC24V	
	48V DC	NC2EBD-JP-DC48V	
	100V DC	NC2EBD-JP-DC100V	
	3V DC	NC4EBD-JP-DC3V	
	5V DC	NC4EBD-JP-DC5V	
	6V DC	NC4EBD-JP-DC6V	
4 Form C	12V DC	NC4EBD-JP-DC12V	
	24V DC	NC4EBD-JP-DC24V	
	48V DC	NC4EBD-JP-DC48V	
	100V DC	NC4EBD-JP-DC100V	

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

2. Slim type

1) Plug-in type

Contact arrangement	Nominal coil voltage	Single side stable		
Contact arrangement	Nominal con voltage	Part No.		
	3V DC	NC2EBD-DC3V		
	5V DC	NC2EBD-DC5V		
	6V DC	NC2EBD-DC6V		
2 Form C	12V DC	NC2EBD-DC12V		
	24V DC	NC2EBD-DC24V		
	48V DC	NC2EBD-DC48V		
	100V DC	NC2EBD-DC100V		
	3V DC	NC4EBD-DC3V		
	5V DC	NC4EBD-DC5V		
	6V DC	NC4EBD-DC6V		
4 Form C	12V DC	NC4EBD-DC12V		
•	24V DC	NC4EBD-DC24V		
	48V DC	NC4EBD-DC48V		
	100V DC	NC4EBD-DC100V		

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

NC

2) PC board type

0	Name in all and to alterna	Single side stable		
Contact arrangement	Nominal coil voltage	Part No.		
	3V DC	NC2EBD-P-DC3V		
	5V DC	NC2EBD-P-DC5V		
	6V DC	NC2EBD-P-DC6V		
2 Form C	12V DC	NC2EBD-P-DC12V		
	24V DC	NC2EBD-P-DC24V		
	48V DC	NC2EBD-P-DC48V		
	100V DC	NC2EBD-P-DC100V		
	3V DC	NC4EBD-P-DC3V		
	5V DC	NC4EBD-P-DC5V		
	6V DC	NC4EBD-P-DC6V		
4 Form C	12V DC	NC4EBD-P-DC12V		
	24V DC	NC4EBD-P-DC24V		
	48V DC	NC4EBD-P-DC48V		
	100V DC	NC4EBD-P-DC100V		

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

RATING

1. Coil data

1) Single side stable type (AC)

No. of	Nominal	Pick-up voltage	Drop-out voltage	Nominal operating	Coil inductance		Nominal operating	Max. allowable
poles	coil voltage	(at 20°C 68°F)	(at 20°C 68°F)			N.O. condition	power	voltage (at 50°C 122°F)
	12V AC			41.5mA	_	_	0.50VA	
2 Form C	24V AC	80%V or less of	10%V or more of	22.5mA	_	_	0.54VA	110%V of nominal voltage
2 FOIIII C	48V AC	nominal voltage (Initial)	nominal voltage (Initial)	14.0mA	_	_	0.67VA	
	100V AC	(10.5mA	_	_	1.05VA	
	12V AC				_	_	1.10VA	
4 Form C	24V AC			45mA	_	_	1.08VA	110%V of
4 F01111 C	10\/ 10	(Initial)		22.5mA	_	_	1.08VA	nominal voltage
	100V AC	(milai)	(IIIIIai)		_	_	1.30VA	

2) Single side stable (DC)

No. of	Nominal	Diek up voltege	Drop-out voltage	Nominal operating	Coil resistance	Naminal aparating	Coil inductance		Max. allowable voltage (at 50°C 122°F)*
poles	No. of poles coil voltage (at 20°C 68°F)	(at 20°C 68°F)	current [±10%] (at 20°C 68°F)	current [±10%] [±10%]	Nominal operating power	N.C. condition	N.O. condition		
	3V DC			120mA	25Ω	360mW	24.2mH	30.0mH	
	5V DC			72mA	69.4Ω	360mW	69.5mH	86.0mH	Ì
	6V DC	000()/ (100/1/	60mA	100Ω	360mW	99.4mH	123mH	135%V of
2 Form C	12V DC	80%V or less of nominal voltage	10%V or more of nominal voltage	30mA	400Ω	360mW	388mH	480mH	nominal voltage
21011110	24V DC	24V DC (Initial)	(Initial)	15mA	1,600Ω	360mW	1,590mH	1,970mH	
	48V DC		(12,	7.5mA	6,400Ω	360mW	6,270mH	7,680mH	
	100V DC			7.4mA	13,500Ω	740mW	9,470mH	11,700mH	110%V of nominal voltage
	3V DC			240mA	12.5Ω	720mW	12.8mH	15.8mH	
	5V DC			144mA	34.7Ω	720mW	34.3mH	42.4mH	
	6V DC	80%V or less of		120mA	50Ω	720mW	50.7mH	62.7mH	4400414
4 Form C	12V DC	nominal voltage		60mA	200Ω	720mW	203mH	252mH	110%V of nominal voltage
Ī	24V DC	(Initial)		30mA	Ω 008	720mW	812mH	1,000mH	
	48V DC			15mA	3,200Ω	720mW	2,820mH	3,480mH	
	100V DC			7.4mA	13,500Ω	740mW	14,100mH	17,400mH	

^{*} At 20°C 68°F (Amber type)

2. Specifications

				Specifi	cations		
Characteristics	Characteristics Item		DC	AC	DC	AC	
			Single side stable	Single side stable	Single side stable	Single side stable	
	Arrangement		2 Form C		4 Form C		
Contact	Initial contact	t resistance, max.	Max. 50 m Ω (By voltage drop 6 V DC 1	A)	Max. 50 m Ω (By voltage drop 6 V DC	1A)	
	Contact mate	erial	Au-clad AgNi type		Au-clad AgNi type		
	Nominal swit (resistive loa	ching capacity d)	Standard: 5A 250V AC, 5A 30V DC Amber: 3A 250V AC, 5A 30V DC		Standard: 4A 250V AC, 5A 30V DC Amber: 2A 250V AC, 5A 30V DC		
	Max. switching (resistive load		Standard: 1,250VA, 150W Amber: 750VA, 150W		Standard: 1,000VA, 150W Amber: 500VA, 150W		
Datin -	Max. switching	ng voltage	250 V AC				
Rating	Max. switching	ng current	Standard: 5A Amber: 3A (AC), 5A (DC)		Standard: 4A Amber: 2A (AC), 5A (DC)		
	Nominal ope	rating power	360mW (740mW: 100V DC)	0.50VA to 1.05VA	720mW*2	1.08VA to 1.30VA	
	Min. switchin (Reference v		100μA 1V DC		100μA 1VDC		
	Insulation resistance (Initial)		Min. 100MΩ (at 500V DC) Measurement at same location as "Initial breakdown voltage" section.		Min. 100MΩ (at 500V DC) Measurement at same location as "Initial breakdown voltage" section.		
	Breakdown voltage (Initial)	Between open contacts	1,000 Vrms for 1min. (Detection current: 10mA.)		1,000 Vrms for 1min. (Detection current: 10mA.)		
Electrical characteristics		Between contact sets	1,000 Vrms for 1min. (Detection current	t: 10mA.)	1,000 Vrms for 1min. (Detection curre	nt: 10mA.)	
	(IIIIIai)	Between contact and coil	2,000 Vrms for 1min. (Detection current	t: 10mA.)	2,000 Vrms for 1min. (Detection curre	nt: 10mA.)	
	Temperature	rise	Max. 65°C [Max. 85°C (100V AC)] (By resistive method, nominal voltage)				
	Operate time	e (at 20°C 68°F)	Max. 20ms	Max. 30ms*3	Max. 20ms	Max. 30ms*3	
	Release time	e (at 20°C 68°F)	Max. 10ms	Max. 40ms*3	Max. 10ms	Max. 40ms*3	
	Shock	Functional	Min. 98 m/s ² (Half-wave pulse of sine w	ave: 11 ms; detection	n time: 10μs.)		
Mechanical	resistance	Destructive	Min. 980 m/s ² (Half-wave pulse of sine	wave: 6 ms.)			
characteristics	Vibration	Functional	10 to 55 Hz at double amplitude of 1 mm (Detection time: 10µs.)				
	resistance	Destructive	10 to 55 Hz at double amplitude of 2 mm				
	Mechanical		Min. 5×10 ⁷	Min. 10 ⁷	Min. 5×10 ⁷	Min. 10 ⁷	
Expected life	Electrical (resistive load)		Standard: Min. 10 ⁵ (5A 250V AC), Min. 5×10 ⁵ (5A 30V DC) Amber: Min. 10 ⁵ (3A 250V AC), Min. 5×10 ⁵ (5A 30V DC)		Standard: Min. 10 ⁵ (4A 250V AC), Min. 5×10 ⁵ (5A 30V DC) Amber: Min. 10 ⁵ (2A 250V AC), Min. 5×10 ⁵ (5A 30V DC)		
Conditions	Conditions for operation, transport and storage*4 (Not freezing and condensing at low temperature)		-40°C to +70°C -40°F to +158°F (Max.48V DC), -40°C to +55°C -40°F to +131°F (100V DC)	-40°C to +60°C -40°F to +140°F*5	-40°C to +55°C -40°F to +131°F	-40°C to +40°C -40°F to +104°F	
	Max. Operati		50 cps	1	50 cps		
	Max. Operating opera		16 g .56 oz		18 g .63 oz		

Notes: *

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. 100V DC: 740mW

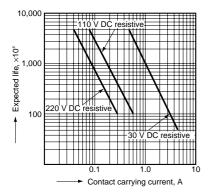
3. For the AC type, the operate and release time differs depending on the phase of the input and cutoff times.

4. Refer to "6. Usage, Storage and Transport Conditions" in AMBIENT ENVIRONMENT section in Relay Technical Information.

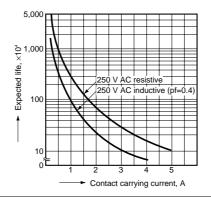
5. 100V DC: -40°C to +40°C -40°F to +104°F

REFERENCE DATA (Standard type)

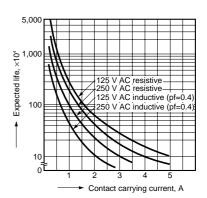
1.-(1) Life curve (AC/DC load 2 Form C, 4 Form C)



1.-(2) Life curve (AC/DC load 2 Form C)

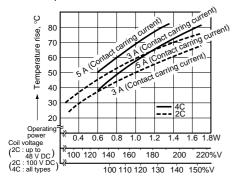


1.-(3) Life curve (AC/DC load 4 Form C)

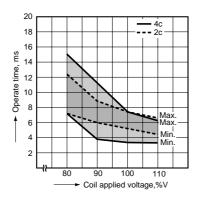


2. Temperature rise characteristics (single side stable)

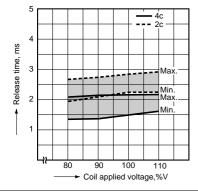
Measured portion: Inside the coil



3. Operate time (single side stable)

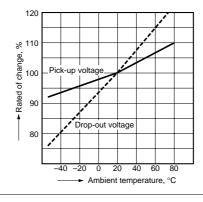


4. Release time (single side stable)



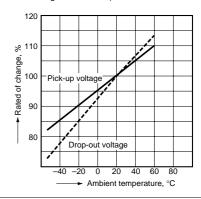
5.-(1) Rate of change of pick-up and drop-out voltage

(2 Form C single side stable)



5.-(2) Rate of change of pick-up and drop-out voltage

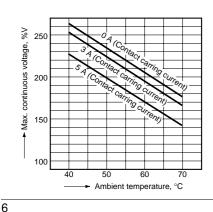
(4 Form C single side stable)



6.-(1) Ambient temperature vs Max. continuous voltage

Tested sample:

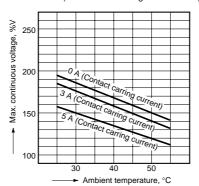
NC2D-P-DC24 V (2 Form C slim single side stable)



6.-(2) Ambient temperature vs Max. continuous voltage

Tested sample:

NC2D-P-DC110 V (2 Form C slim single side stable), NC4D-P-DC24 V (4 Form C slim single side stable)

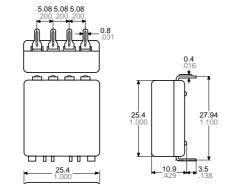


DIMENSIONS (Unit: mm inch)

<Standard type>

Flat type 2 Form C

External dimensions

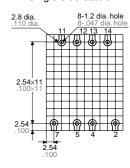


Schematic (Top view) Single side stable



(Deenergized position)

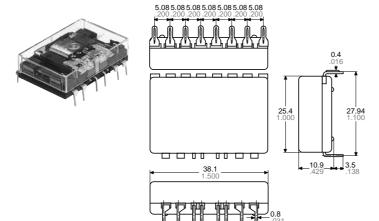
PC board pattern (Bottom view) Single side stable



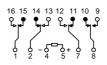
Note: Single side stable types do not have terminals 3 and 6.

Flat type 4 Form C

External dimensions

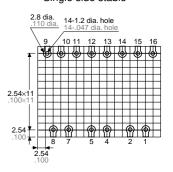


Schematic (Top view) Single side stable



(Deenergized position)

PC board pattern (Bottom view) Single side stable



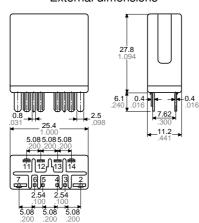
Note: Single side stable types do not have terminals 3 and 6.

NC

Slim type Plug-in type 2 Form C



External dimensions



Schematic (Bottom view)

Single side stable



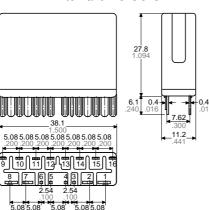
(Deenergized position)

Note: Single side stable types do not have terminals 3 and 6.

Slim type Plug-in type 4 Form C

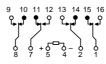


External dimensions



Schematic (Bottom view)

Single side stable



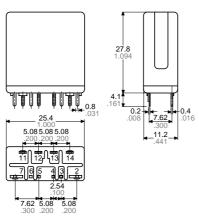
(Deenergized position)

Note: Single side stable types do not have terminals 3 and 6.

Slim type PC board type 2 Form C



External dimensions



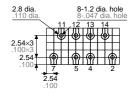
(Dowel heigh: 0.4 .016)

Schematic (Bottom view) Single side stable



(Deenergized position)

PC board pattern (Bottom view) Single side stable

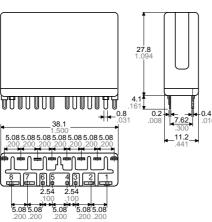


Note: Single side stable types do not have terminals 3 and 6.

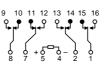
Slim type PC board type 4 Form C



External dimensions

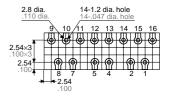


Schematic (Bottom view) Single side stable



(Deenergized position)

PC board pattern (Bottom view) Single side stable



<Amber sealed type>

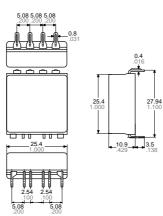
Flat type 2 Form C



External dimensions

(Dowel heigh: 0.4 .016)

Note: Single side stable types do not have terminals 3 and 6.



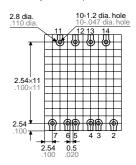
Schematic (Top view)



Single side stable:

Deenergized position

PC board pattern (Bottom view)

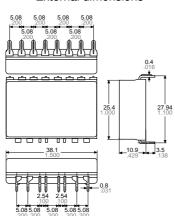


Note: Single side stable types do not have terminals 3 and 6.

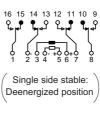
Flat type 4 Form C



External dimensions

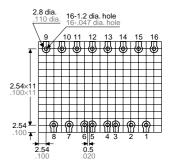


Schematic (Top view)



Note: Single side stable types do not have terminals 3 and 6.

PC board pattern (Bottom view)

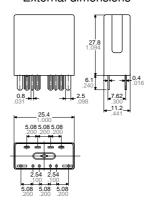


NC

Slim type Plug-in type 2 Form C



External dimensions



Schematic (Bottom view)



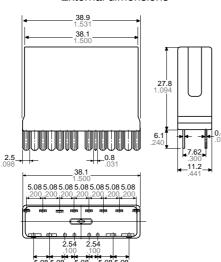
Single side stable: Deenergized position

Note: Single side stable types do not have terminals 3 and 6.

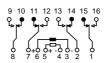
Slim type Plug-in type 4 Form C



External dimensions



Schematic (Bottom view)



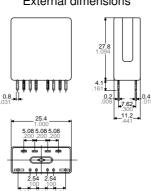
Single side stable: Deenergized position

Note: Single side stable types do not have terminals 3 and 6.

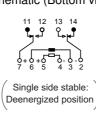
Slim type PC board type 2 Form C



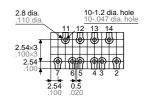
External dimensions



Schematic (Bottom view)



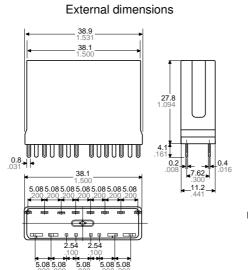
PC board pattern (Bottom view)



Note: Single side stable types do not have terminals 3 and 6.

Slim type PC board type 4 Form C

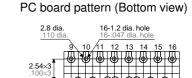




Schematic (Bottom view)



Single side stable: Deenergized position



Note: Single side stable types do not

have terminals 3 and 6.

NOTES

- 1. Because the NC relay is polarized, the positive "+" and negative "-" connections to the coil should be done as indicated on the wiring diagram. If connected incorrectly, it may malfunction or fail to operate.
- 2. As a 2 coil latching type, under the stipulations of the Japanese Electrical Appliance and Material Control Law, because the terminals of NC relay coils have an insulation distance of more than 1.5 mm, NC relays can be used in power supply operating circuits of up to 100 V. When used in contact circuits, 200 V is the maximum voltage.
- 3. To maintain insulation between coils of 2 coil latching series, terminals 5 and 6 for flat series, and terminals 3 and 4 for vertical series should be connected to provide common return.

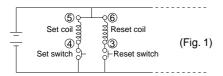
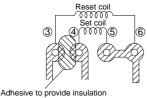


Figure 1 shows wiring that complies with Japanese Electrical Appliance and Material Control Law stipulations for power supply circuits. At the copper traces on PC boards, between terminals 3 and 4, as shown in Figure 2, apply epoxy resin (to thickness of more than 3 mm) or similarly adhesive to provide insulation.



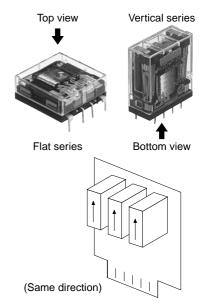
(Fig. 2)

- 4. 2 coil latching series 4 Form C are for intermittent operation only. Power should be applied to coils continuously for no more than two minutes.
- See page 30 for general cautions to be observed regarding latching relays.
- 5. While NC relays can be used with any transmission-wave current to their operation, due to slight weakening of the force of magnetic attraction, decreased resistance to vibration and shock should be taken into account.
- 6. The current that energizes the coil in an NC relay is AC type. Because the AC sine waveform is distorted, when testing, it is essential to use a measuring device that can properly characterize the distorted waveform.

The operating power of the coil in the 100 V AC 4 Form C type is relatively higher than other NC types of AC relay and consequently, the total current applied through all the contacts should be kept below 10 A.

7. The AC type NC relay has a special magnetic design. As a result, once the aside contacts have switched, the b-side contacts may once again go into a temporary ON state depending on the coil inrush phase. To ensure that this phenomenon does not occur, it is necessary to carry out sufficient practical testing with relays installed in actual devices.

- 8. When designing top and bottom view schematic diagrams, note that:
- 1) "Top view" wiring diagram is indicated for the flat series because terminals can be seen from above.
- 2) "Bottom view" schematic diagram is indicated for the vertical series because terminals cannot be seen from above.



9. Cautions for close proximity mounting When using slim series in close proximity, mount all relays facing the same direction. Different mounting directions may cause change in the relay characteristics because NC relays are polarized.

11

For Cautions for Use, see Relay Technical Information.

ds 61C09 en nc: 150110D

Panasonic ideas for life

ACCESSORIES

NC RELAYS

(sockets and terminal sockets)





NC2 Flat type socket

NC4 Flat type socket







NC2 Slim type socket

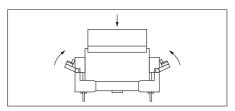
NC4 Slim type socket



FEATURES

Socket

- 1) The vertical (slim) type with solder terminals has a retainer, which enables snap-in fixing on chassis, panels, and similar locations. Because the sockets for both solder terminals and PC boards firmly fix the relay at the time of insertion, once snapped in, spring clips are unnecessary.
- 2) For the flat type, pull up the hinged clasps in the direction of the arrows shown in the drawing after inserting the relay. Spring clips are unnecessary.



TYPES

	Product name	Terminals	Part No.
	NC2-flat type PC board socket	P/C board	NC2-JPS
Flat tuna applicat	NC2-flat, 2 coil latching type PC board socket	P/C board	NC2-JPL2S
Flat type socket	NC4-flat type PC board socket	P/C board	NC4-JPS
	NC4-flat, 2 coil latching type PC board socket	P/C board	NC4-JPL2S
Slim type terminal socket	NC2-DIN terminal socket	DIN rail	NC2-SFD
	NC2-slim type socket	Solder	NC2-SS
	NC2-slim, 2 coil latching type socket	Solder	NC2-LS2
	NC2-slim type PC board socket	P/C board	NC2-PS
	NC2-slim, 2 coil latching type PC board socket	P/C board	NC2-L2P
	NC2-slim type wrapping socket	Lead wire	NC2-WS
Clim tune peaket	NC2-slim, 2 coil latching type wrapping socket	Lead wire	NC2-LSWS
Slim type socket	NC4-slim type socket	Solder	NC4-SS
	NC4-slim, 2 coil latching type socket	Solder	NC4-LS2
	NC4-slim type PC board socket	P/C board	NC4-PS
	NC4-slim, 2 coil latching type PC board socket	P/C board	NC4-L2P
	NC4-slim type wrapping socket	Lead wire	NC4-WS
	NC4-slim, 2 coil latching type wrapping socket	Lead wire	NC4-LSWS

SPECIFICATIONS (common)

Item	Specifications
Max. continuous current	Slim type: 5A 250V AC, Flat type: 5A 250V AC
Initial breakdown voltage	2,000 V AC (Except for coil to coil of L2 type: 1,500 V AC)
Initial insulation resistance	Min. 100MΩ (at 500V DC megger)
Heat resistance	150°C 302°F for 1 hour

Note: Do not insert or remove relays while in the energized condition.

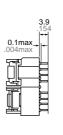
DIMENSIONS (Unit: mm inch)

Flat type socket for PC board NC2-JPS NC2-JPL2S

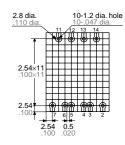


External dimensions 15.24 .600 5.08 .200 2-3.5 dia. hole 2-3.5 dia. hole 2-3.5 dia. hole 10.16 1.744 1.100 MADE IN JAPAN 7 655 433 2 1.600 MADE IN JAPAN 7 655 433 2 1.000 10.16 .400

Terminal portion



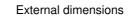
PC board pattern

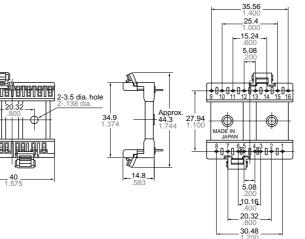


Note: Terminals 3 and 6 excluded for NC2-JPS.

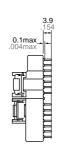
Flat type socket for PC board NC4-JPS NC4-JPL2S



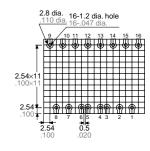




Terminal portion



PC board pattern



Note: Terminals 3 and 6 excluded for NC4-JPS.

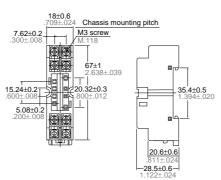
Slim type DIN terminal socket

NC2-SFD

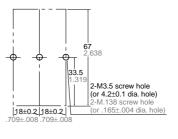


(Retaining springs are included with the DIN terminal socket.)

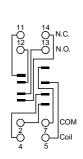
External dimensions



Mounting hole diagram



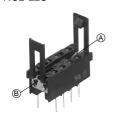
Schematic



 $^{^{\}star}$ To prevent damage or distortion, when tightening fixing screws, the optimum torque range should be 0.49 to 0.69 N·m, (5 to 7 kgf·cm).

Slim type socket for solder terminal

NC2-SS NC2-L2S



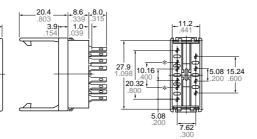
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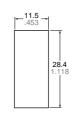
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External dimensions



Chassis cutout



Notes: 1. Suitable chassis thickness is 1.0 to 2.0 mm .039 to .079 inch.

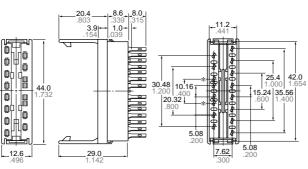
2. Once the socket is inserted from above into the mounting holes, the relay will snap in to clips rising from either side at (A) and (B) by pushing.

Note: NC2-SS is as shown in the diagram above except that terminals marked with " * " are not present.

Slim type socket for solder terminal NC4-SS

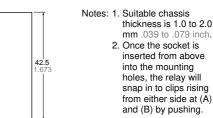


External dimensions



Chassis cutout

11.5



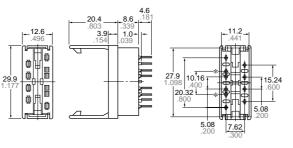
Note: NC4-SS is as shown in the diagram above except that terminals marked with " * " are not present.

Slim type socket for PC board

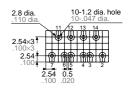
NC2-PS NC2-L2P



External dimensions



PC board pattern



Note: NC2-PS is as shown in the diagram at left except that terminals marked with " * " are not present.

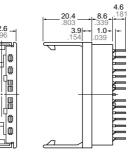
Slim type socket for PC board

NC4-PS NC4-L2P

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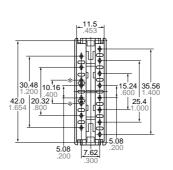
External dimensions



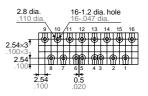
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PC board pattern

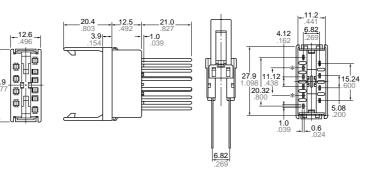


Note: NC4-PS is as shown in the diagram at left except that terminals marked with " * " are not present.

Vertical (Slim) type wrapping socket NC2-WS NC2-L2WS



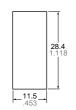
External dimensions



Terminal cross section



Chassis cutout



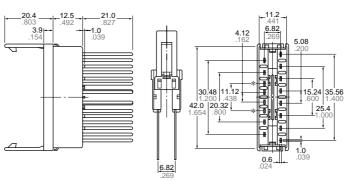
Note: NC2-WS is as shown in the diagram above except that terminals marked with " * " are not present.

Vertical (Slim) type wrapping socket NC4-WS

NC4-L2WS



External dimensions



Chassis cutout



Note: NC4-WS is as shown in the diagram above except that terminals marked with " \ast " are not present.

NOTES

1. Soldering should be done quickly to avoid damaging the thermoplastic body.

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2. For solder terminal types, connect terminals as shown in the diagram at

