



control

INSTRUCTIONS

CAUTION: Before installing in a nuclear application, determine that the product is intended for such use.

CR120BP 600 volt industrial relay—SERIES A

DESCRIPTION

The CR120BP Series A relay is designed so that if a normally open contact should weld closed, the normally closed contacts will not reclose when the relay coil is de-energized. Also, if a normally closed contact should weld, the normally open contacts will not close when the relay is energized. When correctly designed into the circuit, this will provide the self-checking feature required for many punch press applications.

RATINGS

Ac—NEMA A600

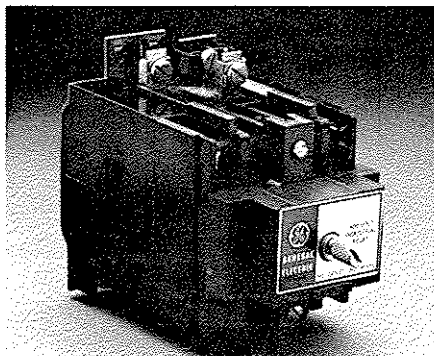
Max. Ac Voltage	Max. Continuous Current	Max. Voltamp Rating		Max. Current Rating	
		Make	Break	Make	Break
600	10	7200	720	60	6

Dc—NEMA P300

Dc Max. Current Rating		Dc Max. Voltamp Rating
125V	250V	300V or Less
1.1	.55	138

INSTALLATION

1. Disconnect power from source.
2. Remove all packing.
3. Operate the relay by pulling the manual operator to assure free movement.
4. Mount the relay on a vertical panel.



Typical CR120BP Series A relay

5. Make all electrical connections. Normally open contacts are indicated by gold and normally closed by white.

COIL REMOVAL

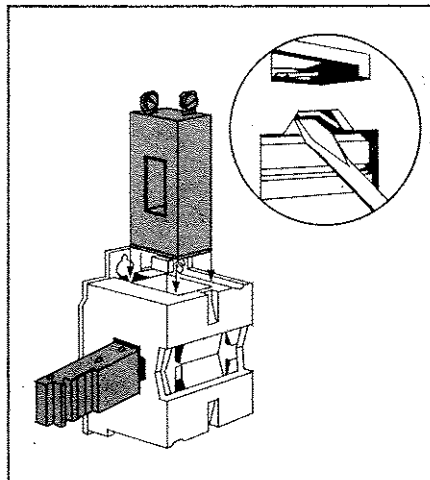


Figure 1.

1. Disconnect power from the device.
2. Disconnect all coil wires.
3. Remove from panel, if so mounted.
4. Insert a screwdriver blade between magnet and magnet retaining clip. Twist blade to force retaining clip away from magnet. Push down on screwdriver, dislodging magnet; then applying firm pressure with screwdriver, push magnet through coil to position shown in Figure 1.
5. Grasp the coil terminals and pull out.

TO REASSEMBLE:

6. Insert coil and center in housing.
7. Slide magnet back through coil and center with housing window. Insert blade of screwdriver through window, perpendicular to magnet. Using blade of screwdriver, push retaining clip away from magnet and apply pressure on magnet from opposite side. Snap magnet back into position under retaining clip. Magnet must be centered in

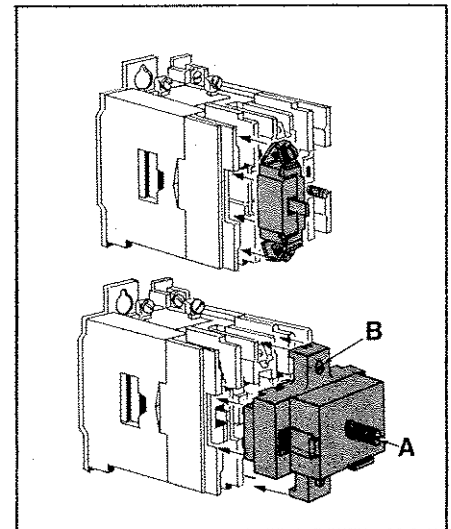


Figure 2.

housing window in order for it to seat properly.

CONTACT REMOVAL/CONVERSION

Contact modules may be removed, inspected, converted or replaced using only a screwdriver.

1. Disconnect power from the device.
2. Unscrew center post "A" Figure 2.
3. Loosen two screws "B" Figure 2 and remove top portion of relay.
4. Lift out contact module. Contacts may be inspected through gold transparent side of module.
5. To convert from normally open to normally closed, or vice versa:
 - a. Remove contact module terminal screws and reassemble on opposite side.
 - b. Replace contact module in deck.
6. Install top portion of the relay.
7. Screw in center post, this screw must be "bottomed out" for proper relay function.

These instructions do not purport to cover all details or variations in equipment nor to provide for every possible contingency to be met in connection with installation, operation, or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the Purchaser's purposes, the matter should be referred to the nearest General Electric Sales Office.

INSTALLING ADDER DECK

The first adder deck kit can be added to a one- through four-pole relay to provide up to eight total poles. The second adder deck kit can be added to a five- through eight-pole relay or to the first adder deck to provide up to 12 total poles (no more than eight should be normally closed).

To install adder decks:

1. Remove power from the device.
2. Unscrew center post "A".
3. Loosen two screws "B" and remove top portion of relay.
4. Add deck to the relay using the screws provided.
5. Put the T-shaped yoke in place in the deck.
6. Add the contact modules. For normally open the gold side should be up, for normally closed the white side should be up.
7. If another deck is being added repeat steps 4, 5, and 6.
8. Install top portion of the relay.
9. Screw in longer center post. This must be tightened securely (15 inch pounds) and then backed out 1/4 turn.

INSTALLING OVERLAPPING CONTACTS

Standard contacts are non-overlapping, i.e., during pickup and dropout there is a period where all contacts are open. If overlapping contacts are required, contact modules CR120BX1A may be used. These contacts will overlap with each other but not necessarily with standard contacts. Normally open and normally closed overlapping contacts will all be closed for a period of time during pickup and dropout.

CAUTION: If the self-checking feature is required, overlapping contacts should not be used.

CONTACT MODULE IDENTIFICATION

The type of contact module can be identified even after installation by the terminal color. Standard modules have a brass terminal, overlapping modules have a gray color, and gold-plated contact modules have red on the terminal.

ACCESSORY KITS

Standard Contact Modules.....	CR120BX1
Overlapping Modules.....	CR120BX1A
Gold-plated Contact Modules.....	CR120BX1B
First Adder Deck (Can accommodate up to eight total contact modules) Includes one contact module.....	CR120BX21
Second Adder Deck (Use with first adder deck on eight-pole relay to accommodate up to 12 total contact modules) Includes four contact modules.....	CR120BX22
Mounting Track—(40 inches long for 16 relays) Breakaway type.....	CR120BX4
Non breakaway type.....	CR120BX18
Indicating Light 115V 50/60 Hz.....	CR120BX5
230V 50/60 Hz.....	CR120BX6
460V 50/60 Hz.....	CR120BX7
Surge Suppressor 115V 50/60 Hz.....	CR120BX2
Wiring Trough Covers 1 1/2 in. wide x 6 ft.....	CR120X15A
2 in. wide x 6 ft.....	CR120X16A
2 1/2 in. wide x 6 ft.....	CR120X17A
NEMA 1 Enclosure (For up to eight-pole relays.....)	CR120BX15
Retaining Shields—6 ft. long for use: with mounting track.....	CR120BX9
without mounting track.....	CR120BX8
Retaining Shield Brackets (Pkg. of eight) for use: with mounting track.....	CR120BX13
without mounting track.....	CR120BX12

RENEWAL PARTS

Coils

(Order 55-513696G*** plus suffix number per table below).

Voltage	Frequency	Suffix No. ***
24	60	025
115	60	002
120	60	022†
200	60	023
230	60	003
460	60	004
575	60	005
600	60	006
110	50	007
220	50	008
380	50	004
440	50	009
550	50	010

† Coil is dual rated 120V, 60 Hz/110V, 50 Hz.

Instantaneous Contacts

Standard Contact Modules.....	CR120BX1
Overlapping Contact Modules.....	CR120BX1A
Gold-plated Contact Modules.....	CR120BX1B