DESCRIPTION

A Model Series 381ADX Relay Alarm Module provides a double pole, double throw relay that is energized and de-energized by an input such as a switching transistor, logic signal or switch contact, etc. A standard or hermetically sealed relay is available (see MODEL DESIGNATION).

When used with SYNCREO 350 Stations, the station status signal (+8V & -6V), or open-collector transistor switches (e.g. Alarm Module sinks) that pull the Relay Module inputs down to circuit common, will cause the relays to change state.

The Relay Module trip-points are fixed. Jumper J3 is used to select normal or reverse relay operation. An LED is provided to show relay state. An energized relay is indicated by a lighted LED.

A Module can be installed in either a standard Series 380 Card Cage Enclosure or an RFI protected Series 381 Card Cage Enclosure. Wiring connections are to a terminal strip in the Enclosure.

Module part numbers are:
15766-48, standard relay
15766-49, hermetically sealed relay

MODEL DESIGNATION

<table>
<thead>
<tr>
<th>Function Module Designation</th>
<th>381</th>
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<tbody>
<tr>
<td>Relay Alarm Module (Isolated)</td>
<td>ADX</td>
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Type of Relays
1. Standard
2. Hermetically Sealed

GENERAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Input Signal</th>
<th>Normal Relay Action</th>
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<tbody>
<tr>
<td>Energized - Open input circuit or input &gt; 4.0 Vdc</td>
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<tr>
<td>De-energized - Contact closure to circuit common, or input &lt; 3.5 Vdc</td>
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<tr>
<td>Reverse Relay Action</td>
<td></td>
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<tr>
<td>Energized - Contact closure to circuit common, or input &lt; 3.5 Vdc</td>
<td></td>
</tr>
<tr>
<td>De-energized - Open input circuit or input &gt; 4.0 Vdc</td>
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Input Impedance: 100K Ohm (min.)

Input Isolation: Input circuit is electrically isolated from the output and power circuits, permitting it to operate at up to 100 Vdc above ground.

Output: One DPDT Relay
- Standard - 5 Amps, 117 Vac or 28 Vdc resistive
- Hermetically Sealed - 3 Amps, 117 Vac or 28 Vdc resistive

Relay Action: Reversible

RFI Suppression: Module tested per SAMA PMC 33.1-1978. Specifications available upon request.
INSTALLATION

The Relay Module must be installed in a Series 380 or 381 Card Cage Enclosure. It can be plugged into any of the numbered slots in the enclosure. Refer to user drawings for the designated slot, or choose a slot for the module.

The safety keys in the Card Cage enclosure must be set before the module is plugged in. Service Instructions SD3801 identifies these safety keys and gives the procedure for setting them. The positions of the keys for the Relay Module are as follows:

Left Key: V (vertical)
Right Key: H (horizontal)

Input and output wiring connections are made on the terminal strips in the Card Cage Enclosure. There is a terminal strip for each numbered slot; the terminal strips are numbered to correspond to the slot numbers. Refer to the CONNECTION DIAGRAM in this instruction for the electrical connections at the terminal strip. For all other wiring information, refer to Service Instructions SD3801.

The module, as shipped, is set for Normal relay action (i.e. with open input circuit, or input voltage > 4.0 Vdc, the relay will be energized).

CHANGING RELAY ACTION

Relay action is determined by jumper J3. Normal action refers to a relay energized when input signal is above trip-point (low fail safe). J3 is installed for normal action. Reverse action refers to a relay energized when input signal is below trip-point (high fail safe). J3 is cut for reverse action.

MAINTENANCE

Except for annual cleaning, the module requires no routine maintenance. If the module does not operate properly when initially installed, check the input and output circuit wiring. Most problems on new installations can be traced to wiring mistakes. Also, verify that the equipment associated with the input and output circuits is functioning.

If a problem is traced to the module, use the P/N 15378-27 Card Extender to troubleshoot the module, or remove the module and give it a full bench check. Conventional electronic troubleshooting methods suffice.

RECOMMENDED SPARES

There are no recommended spare parts for the Relay Module.

One spare Relay Module is recommended for every 1 to 10 in service.

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WARRANTY

The Company warrants all equipment manufactured by it and bearing its nameplate, and all repairs made by it, to be free from defects in material and workmanship under normal use and service. If any part of the equipment herein described, and sold by the Company, proves to be defective in material or workmanship and such part is within twelve months from date of shipment from the Company’s factory, returned to such factory, transportation charges prepaid, and is found by the Company to be defective in material or workmanship, it will be repaired or replaced, free of charge, i.e. b. Company’s factory. The Company assumes no liability for the consequence of its use or misuse by Purchaser, his employees or others. A defect in the meaning of this warranty in any part of said equipment shall not, when such part is capable of being removed, repaired or replaced, operate to condemn such equipment. This warranty is expressly in lieu of all other warranties, guarantees, obligations, or liabilities, expressed or implied by the Company or its representatives. All statutory or implied warranties other than those, are hereby expressly negated and excluded.

Warranty repair or replacement requires the equipment to be returned to one of the following addresses:

Equipment manufactured or sold by MOORE PRODUCTS CO:
MOORE PRODUCTS CO.
Sumneytown Pac.
Spring House, PA 19477

Equipment manufactured or sold by MOORE INSTRUMENT CO:
MOORE INSTRUMENTS LTD/UK
2KM West of Mississauga Rd, Hwy. 7
Brampton, Ontario, Canada

Equipment manufactured or sold by MOORE PRODUCTS CO. (UK) LTD:
MOORE PRODUCTS CO. (UK) LTD.
Central Avenue
East Molesey, Surrey KT8 2SY
England

The warranty will be null and void if repair is attempted without prior authorization by a member of the MOORE PRODUCTS CO. Service Department.
TERMINAL STRIP ON SERIES 380
OR 381 CARD CAGE ENCLOSURES

1. INPUT
   -6V TO +6V

2. COMMON

3. A

4. COM

5. B

6. OUTPUT DPDT RELAY

7. A

8. COM

9. B

NOTES:
1. CONTACTS SHOWN WITH OUTPUT RELAY DE-ENERGIZED.
2. "COMMON" INPUT TERMINAL IS ISOLATED FROM CARD CAGE DC POWER SUPPLY COMMON.