



Serial Number

Number in Batch

6RX21-X / 1TM10
SR Contacts & HR Flag

TRIP CIRCUIT SUPERVISION RELAY

Issue Level	Date	Summary of changes
A	03/11/2010	Initial release
B	10/12/2010	TB update

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1. ASSOCIATED DRAWINGS

Refer to Job Card and associated documentation.
 Relay Connection Diagram

2. HIGH VOLTAGE TESTING

- a) Apply 2kV RMS 50Hz between terminal Groups 1 and 2 in Table 1 for 1 minute.
- b) Apply three 5kV 1/50us pulses of each polarity between terminal Groups 1 and 2 in Table 1.

TABLE 1

GROUP 1	GROUP 2
Coil	All other connections and Frame
Each contact set	All other connections and Frame

PASS

3. TEST PROCEDURE

Check the job card for any special requirements of the relay to be tested.

- a) Connect all specified MAKE contacts in series, and connect to contact sensor/ timer.
- b) Manually operate the relay by pushing the armature towards the pole face of the relay. Ensure that the contacts have sufficient over travel by ensuring that all of the contacts have made before the armature is fully home. Check
- c) Check operation of relay at specified minimum and maximum DC operating voltage, when the relay is de-energised, according to the following table. Also check operation of all BREAK contacts. Also check that the armature is fully home.

Model	Nominal Voltage	Minimum voltage (80%)	Maximum voltage (120%)
6RX21-A	24V	19	29
6RX21-B	32V	25	39
6RX21-C	48V	38	58
6RX21-D	110V	88	132
6RX21-E	125V	100	150
6RX21-F	250V	200	300
6RX21-G	220V	176	264
6RX21-H	240V	192	288

Check

- d) Reduce the supply voltage to determine that the drop out voltage is as per the following table. Adjust the residual screw if necessary.

Model	Nominal Voltage	Min. drop out voltage (10%)	Max. drop out voltage (40%)
6RX21-A	24V	2.4	9.5
6RX21-B	32V	3.2	13
6RX21-C	48V	4.8	19
6RX21-D	110V	11	44
6RX21-E	125V	12.5	50
6RX21-F	250V	25	100



6RX21-G	220V	22	88
6RX21-H	240V	24	96

Check

- e) Check that the HR flag operates at minimum voltage, when the relay is de-energised.

Check

- f) Connect the counter / timer to measure the drop out delay of the relay (when slugged relay element is de-energised from nominal voltage- via 21 & 22). This should be greater than 300ms.

Check

- g) Check that the supervision current for powering each of (R1 & RL1- pins 13 & 14) and (R2 & RL2- pins 21 & 22) is as according to the following table:

Model	Nominal Voltage	Max. operating current (mA)
6RX21-B	32V	16
6RX21-C	48V	16
6RX21-D	110V	16
6RX21-E	125V	18
6RX21-F	250V	10
6RX21-G	220V	10
6RX21-H	240V	10

Check

5. GENERAL & FUNCTIONAL

- a) Check that the label has been engraved correctly as per the wiring diagram.

Check

- b) Check that the relay is electrically sound and mechanically robust as per Standard Inspection & Test Schedule 903-000-026.

Check

PASS

TESTED BY: _____ DATE: _____