PRODUCT/TEST MANUAL

2V550K1

VOLTAGE SENSING RELAY

Order Number

Serial Number

Issue	Date	Summary of changes
A	8/05/01	Initial issue.

Author	Checked & Registered	.pdf file created	Released
ERL	MW	MW	Digitally signed by Michael Williams cn=Michael Williams, ou=Test Room, o=Relay Monitoring Systems, c=AU Date: 2001.05.11 11:54:26 +11'00' Reason: Document is released

1. BROAD DESCRIPTION OF RELAY

The 2V550K1 is a voltage sensing relay which measures the voltage drop across a shunt and is calibrated in Amps. The contacts of the voltage sensing element are fed to a 1 – 10 second timer which is in turn connected to the out 6R relay. The output relay is a heavy duty 6R element with latched contacts and flag.

2. SPECIFICATIONS

DC SENSING VOLTAGE	40 - 60 mV
SETTING SCALE	1000 – 2000 Amps
SETTING ACCURACY	+/- 10% of setting
AMBIENT TEMPERATURE RANGE	-5 to 55^{O}c

3. TEST EQUIPMENT REQUIRED

Auxiliary DC Power Supply
Digital Voltmeter
Decade Box
High Voltage Test Equipment

4. ASSOCIATED DRAWINGS

165-550-101	Wiring Diagram
690-013-250	Circuit Diagram
690-013-350	Loading Diagram
165-550-701	Front Label

5. HIGH VOLTAGE TESTING

a) Apply 2KV RMS between the terminal groups as listed in A & B below for 1 minute.

b) Apply three 5KV 1/50usec pulses of each polarity as listed in A & B below.

GROUP A	**GROUP B**
All terminals	Frame

6. CALIBRATION AND TEST PROCEDURE

6.1 Voltage Sensing

a) Calibrate the voltage sensing PCB as per instruction sheet 165-731-900 using the 30 – 60 volt adjustment procedure.

PASS ☐

6.3 Timing Checks

a) Set the timer to minimum scale (1 second) set the current calibrated setting PU dial to mid scale (1500 Amps) and apply 60 mV to terminals 1 & 3 and check that the output relay operates after the 1 second delay.

Pass ☐

b) Repeat (a) with the timer set to maximum scale (10 seconds)

Pass ☐

7. GENERAL & FUNCTIONAL

a) Check for correct operation of mechanical flag.

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

PASS ☐

TESTED BY :_____DATE :_____

8. CONNECTION DIAGRAM