



Order Number

Serial Number

## PRODUCT/TEST MANUAL

**3A52K14**

**SR/RR INTERTRIP RELAY**

<b>Issue Level</b>	<b>Date</b>	<b>Summary of changes</b>
A	16/12/2005	Initial issue.
B	02/02/2006	Removed base engraving requirement.

Due to RMS continuous product improvement policy this information is subject to change without notice.

<b>Author</b>	<b>Checked &amp; Registered</b>	<b>.pdf file created</b>	<b>Released</b>
ERL	DG	DG	



**1. ASSOCIATED DRAWINGS**

172-052-114 Wiring Diagram  
 This Product Test Manual is in reference to  
 TfA 152512 Issue C 1/10/2003

**2. HIGH VOLTAGE TESTING**

- a) Apply 2KV RMS 50Hz for 1 minute between terminal Groups 1 and 2 for items (a) to (j) in Table 1
- b) Apply 1kV RMS 50Hz for 1 minute between terminals for items (k) to (r) in Table 1.

**TABLE 1**

	<b>GROUP 1</b>		<b>GROUP 2</b>
a)	All Terminals		Frame
b)	9, 10 joined		Other Terminals +E
c)	11 & 12 joined		Other Terminals +E
d)	7,6 & 8 joined		Other Terminals +E
e)	4 & 5 joined		Other Terminals +E
f)	3 & 2 joined		Other Terminals +E
g)	13 & 14 joined		Other Terminals +E
h)	15 & 16 joined		Other Terminals +E
i)	17 & 18 joined		Other Terminals +E
j)	19 & 20 joined		Other Terminals +E
k)	Between 4 & 5		
l)	Between 7 & 8		
m)	Between 3 & 2		
n)	Between 13 & 14		
o)	Between 15 & 16		
p)	Between 17 & 18		
q)	With the SR element armature operated. Between 6 & 7		
r)	With the RR element armature operated. Between 19 & 20		

**3. TEST PROCEDURE**

**3.1 SEND ELEMENT (SR)**

- a) PU volts less than 65 V DC with term 9 pos. and term 10 neg.  
 Drop out not important

Pickup Volts  Volts

- b) >290 ms delay on drop out at 110 V DC  mSec

- c) Reverse the polarity on the terminals making term 9 negative and apply 100 volts DC. Ensure the relay does not operate. This test ensures the integrity of the diode.

- d) Measure the resistance between terminals 9 & 10. This should be 770 Ω +/- 10 %



**3.1 RECEIVE ELEMENT (RR)**

- a) Pick up < 50 Volts DC

Pickup Volts

**Volts**

- b) Operate time less than 50 ms at 110 V DC

**mSec**

- c) Measure the resistance between 11 & 12. This should be  $3000 \Omega \pm 10\%$

- d) AC withstand at 240 V AC.

**OK**

NOTE: The receive element should not pick up under 240 volts when the voltage to the coil is increased slowly.

**4. GENERAL & FUNCTIONAL**

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

**PASS**

TESTED BY: \_\_\_\_\_ DATE: \_\_\_\_\_