

Order Number

Serial Number

## PRODUCT TEST MANUAL

**3A32K41**

**BUCHHOLZ TRIP / OIL SURGE INDICATOR RELAY**

<b>Issue Level</b>	<b>Date</b>	<b>Summary of changes</b>
B	28/09/1998	Initial issue.
C	5/01/01	TfA re-issued notes added to 2.1
D	7/05/01	Tfa 175105 Issue C
E	24/10/01	TfA 175105 Issue D
F	20/01/09	TfA Issue E
G	16/09/10	Added insulation resistance testing of all units

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ERL	DG	DG	

**1. ASSOCIATED DRAWINGS**

This Product Test Manual is in reference to  
 TfA 175105 Issue E 26/03/07

**2. INSULATION RESISTANCE CHECK**

Check the insulation resistance at 500VDC for the following cases in Table 1. Note that the resistance shall be **no less than 50MΩ**.

**Table 1**

Group 1	Group 2
<u>Each</u> coil	All other connections
Each contact set	All other connections

**3. HIGH VOLTAGE TESTING**

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

**Table 2**

Group 1	Group 2
<u>Each</u> coil	All other connections and Frame
Each contact set	All other connections and Frame

**3. TEST PROCEDURE**

**Buchholz Trip Relay**

- a) Check coil resistance is 200 Ω +/- 5%. (Short coil)
- b) Operate voltage less than 60V DC

**Oil Surge relay**

- a) Check coil resistance is 0.2 Ω +/- 5%
- b) Operate current between 400mA – 500mA DC

<b>Buchholz</b>	Pickup Voltage	<input type="text"/>	<b>V</b>
<b>Oil Surge</b>	Pickup Current	<input type="text"/>	<b>A</b>

**4. GENERAL & FUNCTIONAL**

- a) Check that the relay label is engraved with stock-code number 175105
- b) Check that the relays are shockproof and that the flag mechanism operates correctly.
- c) Check that the relay is electrically sound and mechanically robust as per Standard Inspection & Test Schedule 903-000-026.

**PASS**

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