



DESCRIPTION • OPERATION • MAINTENANCE INSTRUCTIONS

BI-METAL TYPE HOTTEST SPOT THERMAL INDICATOR For Sealed Dry-Type Transformers

THE HOTTEST SPOT THERMAL INDICATOR is an auxiliary piece of apparatus used to indicate the hottest spot in the transformer winding. This temperature is approximately duplicated on the bimetal of the dial type thermometer and is read directly on the indicator dial.

DESCRIPTION

The weatherproof dial type indicator is mounted on the tank wall of the transformer. The dial is calibrated from 0 to 250 degrees centigrade and has a resettable maximum temperature hand.

Three signal or alarm contacts are available that are rated at a maximum current given in Table No. 1. The contacts close at 200°, 210° and 220° centigrade. The contacts open at 5° less than the closing temperature. The alarm leads are brought out of the instrument through a triple seal connector with a locating pin to prevent incorrect connections.

The current transformer is mounted outside the case of the main transformer and is energized from one of the windings depending on which is more suitable. The secondary is connected to the terminals of the heating coil which is mounted inside of the sealed tank. The heating coil therefore carries a current proportional to the load of the main transformer.

OPERATION

The heating coil, located in the hot gas of the

transformer, carries a current proportional to load, and has a thermal time constant approximately equal to that of the transformer. The thermometer bimetal located inside the heating coil will therefore attain a temperature approximately that of the transformer winding.

The proper current transformer tap is selected from the recording of the hotspot by thermocouple at the time of the transformer load heat run.

INSTALLATION AND MAINTENANCE

The thermal indicator and current transformer is completely mounted and adjusted at the factory before shipment and should not require any service at the time of installation. If it becomes necessary to repair the instrument contact the nearest Westinghouse Sales Office.

Table No. 1

CONTACT LOAD LIMIT

AC (OPEN-CLOSE) INDUCTIVE- NON-INDUCTIVE		DC (CLOSE ONLY) NON-INDUCTIVE ONLY	
Volts	Amperes	Volts	Amperes
125	10	125	1/2
250	5	250	1/4
460	3

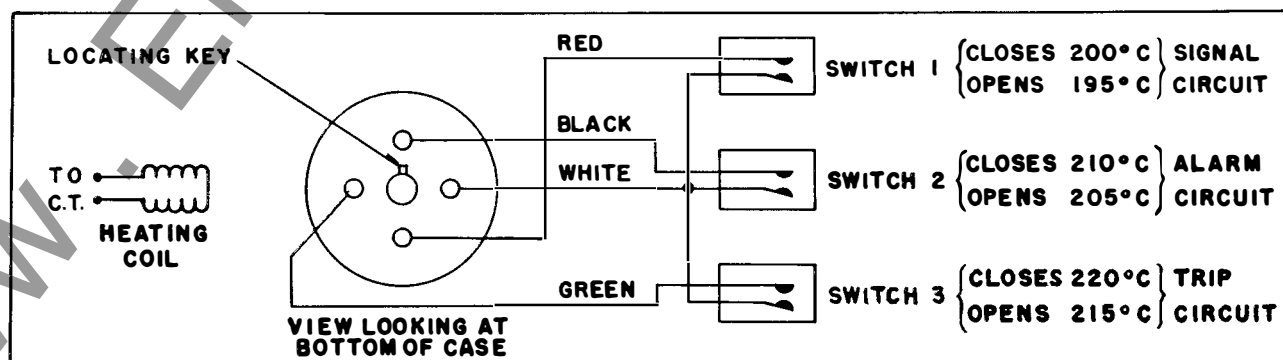


FIG. 1. Wiring Diagram