



Form No. 2038

उत्पाद मानक  
परिणामित्र  
शाप/अभि. निर्देश

PRODUCT STANDARD  
TRANSFORMER  
SHOP/ENGG INSTRUCITONS

TR 20106T

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## TITLE-SPECIFICATION FOR R.T.D SCHEME WITH DIGITAL INDICATOR (RWTI)

**MATERIAL CODE:-BP9036054516  
ST-605451**

### APPLICATION

System shall be used to measure winding hot spot temperature of the oil immersed transformer / reactor at remote point by D.C. Current mode. R.T.D sensor shall be electrically connected to remote winding temperature indicator, using current transformer, and current converter unit with built up power supply unit, inter-connection of the instrument shall be done as per Drg.44996200510.

Scheme shall consist of the following items.

#### 1. R.T.D SENSOR

QTY. 1 NO.

R.T.D Sensor with three or five wire system shall be suitable for outdoor application .It shall have one pt.100 ohms resistance (BS 1904/DIN IEC 751 with class B tolerance) assembled in a pocket. Sensor shall be generally as per Drg. 44996200148 meeting the following requirement.

Stem Dia - 6.35 mm min.  
Stem Length - 155 mm min.  
Fixing thread - 3/4 " B.S.P.  
Conduit entry - 1 or 2 no. brass cable glands suitable for cable OD 19 mm max.

#### 2. BRASS POCKET

QTY. 1 NO.

Pocket made out of brass shall have fixing threads of 1" B.S.P. (male type) and shall be suitable for R.T.D. sensor specified at 1. above.

#### 3. RESISTANCE TO CURRENT CONVERTER UNIT WITH BUILT UP POWER SUPPLY UNIT

QTY. 1 NO.

Resistance to current converter circuit board shall be housed in a weather proof box. Converter unit shall have two separate 4-20 mA output for scale range of 30 -150 ° C which can be displayed on a digital indicator and Recorder/DAS. Unit shall be suitable for 90-260 V AC/DC input power supply. Mounting dimensions of C.C.U.with built up power supply shall be as per Drg.44996200513.

पुनः Rev.  
03  
दिनांक  
Date  
5/10/12

SPECIFICATION UPDATED

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दिनांक Date  
17.06.91



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**4. REMOTE WINDING TEMP. INDICATOR (RWTI)****QTY. 1 NO.**

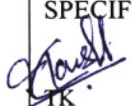
This shall be remote digital type indicator to read temperature in the range of 30-150 ° C corresponding to 4-20mA input from CCU. The instrument shall be flush mounting type 96X96 mm size. It shall be marked winding temperature indicator. Instrument shall be suitable for 92 x 92 mm panel cut out dimensions.

**NOTES:-**

1. Each scheme shall be tested as OTI and then as WTI by injecting the current to the heater coil .Oil bath shall be maintained at 60 ° C. Total temp. & temp. rise as per graph 44996200159 or 4996200160 shall be recorded for 0,2,3 & 4 amps. Accuracy of the indication shall be  $\pm 1\%$  of F.S.D. i.e. oil bath temp. measured by standard thermometer plus rise in temp., due to injection of current in heating coil shall be within  $\pm 1\%$  of F.S.D
2. All the instruments of the scheme shall be match marked after testing.
3. Acceptance tests shall be carried out as per TR 10157T.
4. RTD Sensor shall be suitable for outdoor application.

**NOTE TO D/MAN & SHOP:-**

1. Item no.1 (RTD sensor) is to be supplied loose & shall be covered in shipping list of transformer.
2. Item no.2 (Resistance to current converter unit with built up power supply unit) is to be fitted in the marshalling box / kiosk before their dispatch.
3. Item no.03 (Thermometer pocket) is to be fitted on transformer tank cover during shipping.
4. Item no. 4 (RWTI) is to be supplied loose or to be free issued to SWM as per schematic contract drawings.

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