



# ICMET

National Institute for Electrical Engineering  
Research - Development - Testing

200515 CRAIOVA - ROMANIA , Calea Bucuresti 144

FAX: +40 251 415 482; 40 351 404 890 ; e-mail market @cmet.ro

TEL : +40 351 404 888; 40 351 404 889; e-mail icmet @cmet.ro

www.icmet.ro

## MICROPROCESSOR EQUIPMENT FOR POWER TRANSFORMER OPERATION



TYPE IMT-03 U, I

## SYMBOLS :

**IMT** – temperature monitoring equipment  
**03** – variant  
**U** – oil  
**I** – winding

This apparatus is intended for the protection and monitoring of the equipment and enclosures operating at variable temperatures, the most frequent application being the monitoring of power transformer winding and oil temperature, also the control of the cooling system, the tripping of the overtemperature protection, respectively.

### The equipment is provided with

- one input for currents 0 - 5 A;
- one input for Pt 100 oil temperature transducer

The current temperature is shown on a display, within a 3 digits format, 0 – 180<sup>0</sup>C temperature range.

The equipment has in its structure 4 control relays, 5 A, 250 V AC, which close at the temperature thresholds preset by the beneficiary.

Disconnection is done at a temperature being 4<sup>0</sup>C ( $\Delta TH = 4^0C$ ) lower than the temperature preset by the beneficiary (this is confirmed by the LED from the display).

*Note:* At the beneficiary's request, the threshold can be changed, so as  $\Delta TH$  had the desired value. The apparatus could be provided with the ability to send remotely the information and software necessary for data acquisition on PC.

The value of the temperature shown on display remains unchanged as long as the value of the measured temperature does not exceed the maximum recorded value.

The apparatus stores and displays the maximum value reached by the winding and oil temperature during the entire operation time of the transformer.

## TECHNICAL CHARACTERISTICS

● Measuring accuracy:	
▪ winding temperature:	$\pm 2^0C$
▪ oil temperature:	$\pm 2^0C$
● Mains supply:	220 V + 10 % - 15 % V AC, 50 Hz
● Operating temperature:	-10 <sup>0</sup> C to 50 <sup>0</sup> C
● Protection degree:	IP54
● Maximum displayed temperature:	0 to 180 <sup>0</sup> C
● Probe accessories:	PT 100
● Overall dimensions:	330 x 230 x 140 mm
● Weight:	2.8 kg

The equipment has been tested to electromagnetic compatibility, climatic cycles and vibrations, according to SR EN 60255-5:2003 and SR EN 61000-4-5:1999+A1:2003; STAS 8393-19/89; SR EN 60068-2-1+A1+A2/95; SR EN 60068-2-2+A1+A2/97, SR ISO 2409/94, SR ISO 2808/93, SR ISO 2819/96, STAS 6854/90.