



DESIGNATION	DIA. IN MM.	MINIMUM DIA. OF CONTACT AREA	PRESENCE OF MATERIAL	QTY.
⊘	1.3 ±0.12	1.8	AFFIRMATIVE	18
⊘	1.5 ±0.12	2.0	AFFIRMATIVE	16
⊘	1.8 ±0.12	2.3	AFFIRMATIVE	11

ORDNANCE FACTORY  
DEHRADUN

PERISCOPE, A.V., T.N.P.O.-160  
PRINTED CIRCUIT BOARD ASSY.

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APPROVED: *(Signature)*  
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(UOTIAN MEENA) AMW/P/ig

REF. DRG. No.:-  
ALL-7.820.033

AMENDMENTS:	DT:- 03.06.2017	SCALE:- N.T.S.
	MATL. AS ABOVE	TREAT
	SHTS:- 1	SHT. No:- 1
DRAWING No.:-		
MCT-3472		
OFD/DO/002		

**NOTE:-**  
1. PRINTED CIRCUIT BOARD SHOULD BE SUPPLIED IN ASSEMBLED CONDITION.  
2. FOR THE SCHEMATIC CIRCUIT DIAGRAM & DETAILS OF RESISTORS, DIODES, TRANSISTORS AND RELAYS PLEASE SEE SCHEMATIC CIRCUIT DIAGRAM ALLS.088.003.33

**MATL. OF PCB :-** TEXTOLITE, C-2-50-15 (GOST-10316-78)  
GLASS-CLOTH-BASE LAMINATE, COATED WITH COPPER OXIDIZED FOIL, WITH THICKNESS 50 μm ON BOTH SIDES, DENSITY OF FOLLING MATERIAL 2.18-2.38 g/cm<sup>3</sup>

**FOR READER ONLY**  
Date of Issue: 05/07/21

- NOTE:-**
- DIMENSIONS FOR REFERENCE.
  - PRINTED CIRCUIT BOARD IS TO BE MADE COMBINE POSITIVE METHODS AS PER TECHNOLOGY OF MANUFACTURING FACTORY.
  - GRATICULE COORDINATING PITCH 2.5 mm.
  - CONFIGURATION CONDUCTORS TO BE WITHHELD ACCORDING TO PITCH OF GRATICULE HAVING DEVIATIONS FROM DRAWING ±0.5 mm AT PLACES ±1 mm.
  - WIDTH OF CONDUCTORS 'A' SHOULD BE AT LEAST 2.2 mm. CONDUCTORS 'B' NOT LESS THAN 4 mm, OTHER FROM 1.5 ± 0.5 mm. AT NARROW PLACES UP TO 0.4 mm.
  - SHAPE OF CONTACTING AREA ON BOTH SIDE OF P.C. BOARD ARBITRARY.
  - DISTANCE BETWEEN CONDUCTORS AND CONDUCTING AREA SHOULD NOT BE LESS THAN 1 mm. AT NARROW PLACES NOT LESS THAN 0.4 mm.
  - CENTRE TO CENTRE DISTANCE BETWEEN HOLES, UNLIMITED TOLERANCES TO BE CARRIED OUT WITH ACCURACY OF ±0.2 mm.
  - DIA OF CONDUCTING AREAS 1.....8 SHOULD NOT BE LESS THAN 4 mm.
  - INSCRIPTIONS SHOULD BE CARRIED OUT WITH LETTERING 2-FTP 3 GOST 26.020-85 WITH BLACK PAINT UM TY 29-02-589-78.
  - COATING OF CONDUCTORS - TIN LEAD ALLOY, AFTER BRIGHTNING COAT WITH ROSE METAL.
  - MARKING KK LETTER IS LIMITED MARK U-AV 7.820-033. Dk WITH LETTERING 2-FTP 3 GOST 26.020-589-78. BLACK POINT UM.
  - TO BE PRESERVED IN FLUX Φ K Cn (BY DIPPING) CONTAINING 40% RESIN OF GRADE D.
  - WORK EFFICIENCY OF P.C. BOARD TO BE CHECKED BY CONDUCTING PERIODIC TEST OF ITEMS TYPE TH10-160 IN COMPLIANCE WITH TY 3-3-1000-83.
  - PACKING AND TRANSPORTATION OF P.C. BOARD IN COMPLIANCE WITH POINT 5 OF GOST 23752-79.
  - REMAINING TECHNICAL REQUIREMENTS AS PER GOST 23752-79.

Specification/technical requirements of Glass temperature regulator PTC-27-6 with all Russian components

1. The supplier must guarantee compliance of the assembled PCB with the requirements of standard TY3-1000-74
2. Soldering of components and wires with PCB contacts should be acid less as per HO.010.001.
3. The PCB used for mounting of electronic components should conform to PCB general specification no. OCT23752-79.
4. The electronic components must be mounted as per OST 4-Г0-010-030. Preparation and soldering of elements should be carried out as per OST4- Г0.054-267 solder ПОО-61Т3-1.5 Gost 21931-76, Flux ФКК-ПОСТ4- Г0-033-200-78.
5. Diode POS 21, 22 & Zeneth Diode POS.26 and Transistor 27, 28 to be soldered by using Heat sink.
6. Soldered places of conductor on Diode terminals should be insulated by Sleeve POS 34 having length 10 mm.
7. On terminals of Transistors put on sleeve POS 32 having 10 mm.
8. Bending radius of Resistors terminals and Diode should not be less than 1 mm , Zeneth Diode not less than 1.5 mm.
9. On completion of assembly adjustment, coat with Varnish paint YP-231 TY6-10-863-84 except surfaces.
10. Remaining technical requirements as per TY3-10-100083.
11. Soldered places should be washed with industrial rectified Alcohol GOST-182300-72.
12. At terminal NO. 1,2,3,4,5,7 & 8 of Printed circuit board, solder 1meter long different colour Teflon wires TY 16-505437.73-0.35.  
The assembled PCB shall be subjected to the following tests and inspection processes.
13. The supplier must give a certificate clearly stating the authenticity of the Russian electronic components used in the PCB and have to provide copy of the documents pertaining to the import of the electronic components that establishes the authenticity of the electronic components to the satisfaction of the buyer.

Functional, electrical, environmental & durability tests

1. The assembled PCB shall be electrically and mechanically connected to the device TNPO-160 as per drg No. AU3-895-048 73, AU5.088.003C6 AU3.895.048 C6. After integration with the device TNPO-160 as per the aforesaid drawings, it shall be subjected to evaluation and trial tests as per Para No. 4, 6 7 (i), 7(ii) 7 (ii) 7 (iv) & 7 (v) of Quality control plan No. OFD/QCF/QCP/047.
2. During and after each evaluation test as mentioned above the assembled PCB and the device to which it is connected as mentioned above, must perform satisfactorily i.e. it must conform to the technical requirements as per para no. 3.1.3, 3.1.5, 3.1.6, 3.1.10 of Specification no. Ty-3-3-100-74.
3. During and after each evaluation test, the device must function as per the provisions contained in Specification no. Ty-3-3-100-74.

AWM/ASSY

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HOS/IA-II