Dieter’s

Nixie Tube Data Archive

This file is a part of Dieter's Nixie- and display tubes data archive

Translated by Champion Adrien

Document in this file	Reflector (Sovtek) - IN-12A, IN-12B (ИН-12А, ИН-12Б) Original datasheet – dated 1988
Display devices in this document	IN-12A, IN-12B (ИН-12А, ИН-12Б)

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Glow discharge indicators
IN – 12A, IN – 12B

ПАСПОРТ

СССР ● МОСКВА

1. GENERAL INFORMATION

Glow discharge indicators IN-12A, IN-12B are designed for visual indication of electrical signals in digital form in stationary and mobile radio equipment.

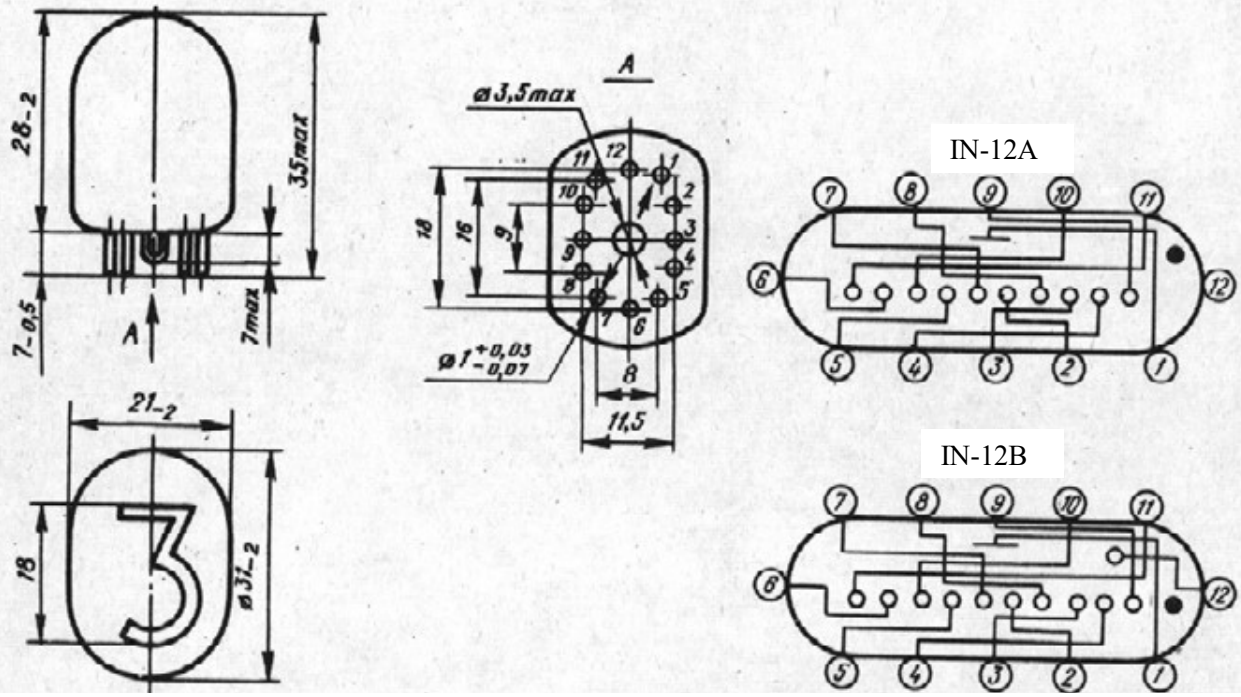

Figure 1. Dimensions and electrode connection diagram

Notes: Pin numbering according to the indicator arrow.

The position of digits relative to the pins is shown conditionally through the dome of the bulb.

Pin numbering is arbitrary.

Mass not exceeding 16 g.

Pin	IN-12A	IN-12B
1	Anode	Anode
2	Cathode 0	Cathode 0
3	Cathode 9	Cathode 9
4	Cathode 8	Cathode 8
5	Cathode 7	Cathode 7
6	Cathode 6	Cathode 6
7	Cathode 5	Cathode 5
8	Cathode 4	Cathode 4
9	Cathode 3	Cathode 3
10	Cathode 2	Cathode 2
11	Cathode 1	Cathode 1
12	Not connected	Cathode comma

2. OPERATING CONDITIONS

Sinusoidal vibration:

Frequency range, Hz:	1-600
Acceleration amplitude, m/s²:	100

Mechanical shock:

Single:	
Peak shock acceleration, m/s²:	1500
Duration, ms:	1-3
Multiple:	
Peak shock acceleration, m/s²:	750
Duration, cycles:	2-6

Linear acceleration, m/s²:	500
Elevated ambient operating temperature, K:	343
Reduced maximum ambient temperature, K:	213
Elevated relative humidity at 308 K, non-condensing, %:	98

3. BASIC TECHNICAL DATA

3.1 Electrical Parameters (Supply, Operation, and Storage)

Parameter	Minimal	Maximal
Discharge ignition voltage, V	—	170
Indication current (for digits), mA:	—	2,5
Indication current (for comma), mA:	—	0,3

3.2 Maximum Allowable Operating Modes

Parameter	Minimal	Maximal
Power supply voltage (DC or RMS voltage from AC source with pulsating current with a single half-wave rectifier), V	200	—
Working current, DC, mA:		
For digits:	2,5	3,5
For comma:	0,3	0,5
Average working current (when powered from a 50 Hz AC network with a single half-wave rectifier) for digits, mA:	1	2
Average working current (when powered from a 50 Hz AC network with a single half-wave rectifier) for the comma, mA	0,15	0,2
Overload current, mA:		
For digits:	—	5
For comma:	—	0,7

Продолжение

Parameter	Minimal	Maximal
Overload time, min:		
IN-12A	—	30
IN–12B	—	33

Note: During operation, indicators may have illuminated areas on the traverses and non-glowing areas of the cathode, not exceeding 2 mm, without hindering visual indication of digits.

4. OPERATING INSTRUCTIONS

4.1. To prevent storage conditions from affecting indicator parameters, it is recommended to perform a training session with a current of 1-2 mA (pulsating) or 2.5-3 mA (constant) for at least 1 minute for each cathode before establishing the operating mode.

4.2. Indicators are recommended to be powered by single half-wave rectified mains voltage without a filter. The average current per cathode should not exceed 2 mA.

4.3. Indicators can be operated on a single cathode for 1000 hours in durability mode.

4.4. The recommended power voltage when operating on DC is 250 V, significantly reducing the discharge ignition delay time.

4.5. Soldering of pins is allowed at a distance of at least 4 mm from the base of the bulb.

5. STORAGE

Indicators should be stored in heated (or cooled) and ventilated warehouses at temperatures from 278 to 313 K and relative humidity up to 80% at 298 K and below, without condensation.

6. ACCEPTANCE INFORMATION

Indicators have been tested by the technical control department and deemed suitable for operation.

Штамп ОТК ОТК 4 3-1

Перепроверка произведена _____

Штамп ОТК

Внешторгиздат. Изд. № 879У/88.
ООП. Зак. 494.