

OG-8-pulse Uni-Directional High Speed Dekatron

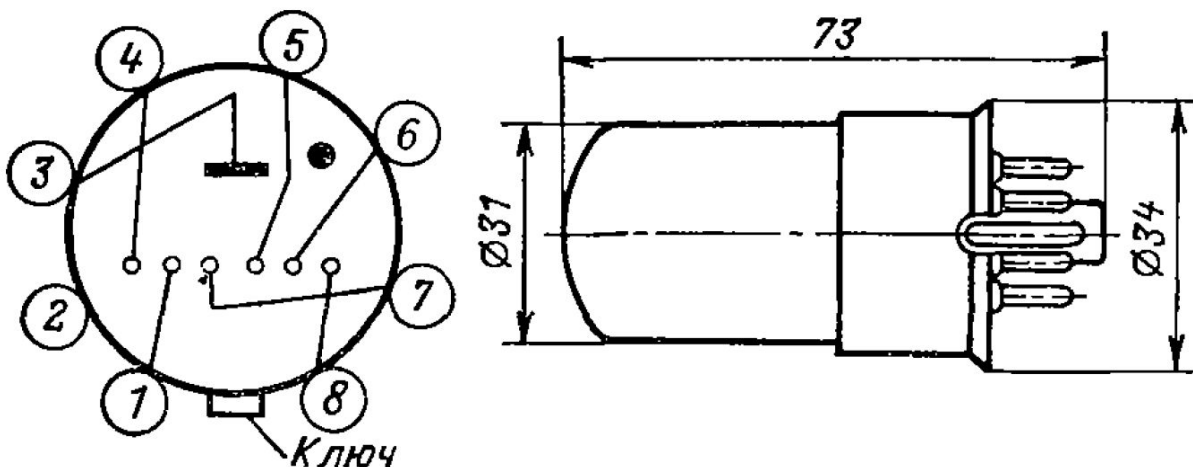
(Computing Counter)

Light color - Purple. Cold cathodes. They operate in any position. Indication is made through the tank dome. Glass with cap (RSH5-1). Weight 70g

Connections

- 1 - Index Cathode K0
- 2 - is not connected
- 3 - Anode
- 4 - Guide
- 5 - Fifth cathode K5
- 6 - Ninth cathode K9
- 7 - Third cathode K3
- 8 - Common cathode K

Important: pins K3, K5 and K9 don't connect internally to the common cathode line - they are just brought directly out to the base



Voltage > 400 V

Voltage discharge occurrence < 480

Discharge sustain voltage 255-295 V

Voltage bias on guide 36-44

The voltage amplitude of reset pulse in the 75-125

Ignition delay time < 5 1.1-1.3 mA

Operating current control pulses data:

Counting rate of 0.01-100 000 Hz

Pulse amplitude 80-110

Pulse duration > 3 microsecond

Rise time of 0.3-1 microsecond

Pulse duration reset > 10 ms

Operating time > 500 hours

Guaranteed shelf life of 8 years

Maximum permissible parameters

Output voltage on the cathodes 7V

Cathodic load resistance < 7.5 ohms

Temperature range -60 to + 70 ° C

* At a frequency of 1 Hz is allowed dekatrons work no more than 2 hours under the condition subsequent operation at frequencies of 50 Hz and above for an hour, the total standing time of the discharge must not exceed 50 hours.

The extra information below is from the neonix-I google group kindly supplied by Jon.

There is no electrical difference between K0, K3, K5 or K9, just a topological one with respect to the other electrodes in the array. Choose any one of them as your nominal index cathode, treat all the others in the same way as the common cathode K and you'll get a tube which spins giving one output pulse from the index cathode every revolution.

OG8 is indeed a unidirectional tube - the shape of the cathodes (main cathode and transfer electrodes) dictates the directionality. That's how you can get secure glow transfer with only one transfer electrode between each main cathode.

The GIF is spot on for a two-guide counter dekatron like GC10B or OG4. And yes, the index or K0 pin is not connected to anything else in that whole array of electrodes circling the anode, just the individual electrode as shown. Some manufacturers call this the 'output cathode'. In a selector dekatron like GS10C or A101, every one of those purple electrodes that are connected together in the GIF as K1-K9 (RTN) is not connected to anything else and brought out to its own pin on the base. In a computing counter like GC10/4B, some of those electrodes have their own pin on the base, the remainder are internally connected to make a common cathode array like in the GIF.

Your OG8 is therefore different to the GIF in 2 ways. First K3, K5 and K9 don't connect internally to the common cathode line - they are just brought directly out to the base, exactly like K0 is shown here. Second, it has a single directional transfer electrode array instead of the two guide electrode arrays, so you need to imagine all the orange coloured pins and connections in the GIF as being absent.

Animated Gif.

<https://threeneurons.wordpress.com/dekatron-stuff/>

Original Datasheet.

tubehobby.com/datasheets/og8.pdf