ELECTRON-RAY TUNING INDICATOR with triode unit and two indicating sectors of different sensitivity

PHYSICAL SPECIFICATIONS

Cathode Coated unipotential
Base Octal 8 pin
Bulb Tubular bulb; diameter 1 3/32" max.
Maximum overall length 3 19/32"
Maximum seated height 3 1/32"
Maximum diameter 1 3/32"
Basing connections—JETEC basing designation 8 EV

Pin 1 — not connected
Pin 2 — heater
Pin 3 — plate No.1
deflection rod No.1
Pin 4 — control grid
Pin 5 — target
Pin 6 — plate No.2
deflection rod No.2
Pin 7 — heater
Pin 8 — cathode

GENERAL ELECTRICAL DATA
Heater voltage 6.3 volts
Heater current 0.2 amp

MAXIMUM RATINGS (Design Center Values)
Plate No.1 voltage (cold condition) 550 volts
Plate No.1 voltage 300 volts
Plate No.2 voltage (cold condition) 550 volts
Plate No.2 voltage 300 volts
Target voltage (cold condition) 550 volts
Target voltage 300 volts
Grid current starting point, grid voltage when grid current is 0.3 μamp. -1.3 volts
Grid circuit resistance 3 megohms
Heater-cathode voltage 100 volts
External resistance between heater and cathode 20,000 ohms

from RETMA release #1254, Nov. 6, 1953
**OPERATING CHARACTERISTICS**

Position of the shadow sectors (top view)

Plate and target supply voltage 100 200 250 volts
Series resistor of plate No. 1 1.0 1.0 1.0 megohm
Series resistor of plate No. 2 1.0 1.0 1.0 megohm
Target current approx. 0.4 1.4 2.0 mamps

Triode grid voltage (for section No. 1)
- for minimum shadow angle -2.5 -4.2 -5 volts
- for shadow angle of 180° 0 0 0 volt

(for section No. 2)
- for minimum shadow angle -8 -12.5 -16 volts
- for shadow angle of 180° 0 0 0 volt
Supply voltage = 100 volts
Target voltage = 100 volts
Plate No. 1 load resistor = 1 megohm
Plate No. 2 load resistor = 1 megohm

Shadow angle (degrees)

Target current (I1)

Triode grid bias (E_c, volts)
Supply voltage = 250 volts
Target voltage = 250 volts
Plate No 1 load resistor = 1 megohm
Plate No 2 load resistor = 1 megohm
Supply voltage = 200 volts
Target voltage = 200 volts
Plate No1 load resistor = 1 megohm
Plate No2 load resistor = 1 megohm

Target current (I_t)

Shadow angle (degrees)

Triode grid bias (E_C, volts)