CATHODE RAY TUBES

High-sensitivity oscilloscope tubes
with 3½-in. diameter screen.

HEATER

\[
\begin{align*}
V_h & = 4.0 \ \text{V} \\
I_h & = 1.0 \ \text{A}
\end{align*}
\]

CAPACITANCES

- Grid to all other electrodes: \(\leq 25\ \text{uF}\)
- Each X plate or each Y plate to all other electrodes: \(\leq 25\ \text{uF}\)
- One X plate to one Y plate: \(\leq 5\ \text{uF}\)

FLUORESCENT COLOUR

ECR.35 Green. Non-persistent.
ECR.35P Blue, with yellow-green afterglow.

DEFLECTION

Electrostatic. The tube is suitable for either symmetrical or asymmetrical operation.

With asymmetrical deflection the trapezoidal distortion is such that the angle between adjacent sides of a 45 mm x 70 mm scan is between 85° and 95°.

OPERATING CONDITIONS

\[
\begin{align*}
V_{a1}=V_{a3} & = 1,200 \ \text{V} \\
V_{a2} & = 150 \text{ to } 250 \ \text{V} \\
v_g & = -1.0 \text{ to } -50 \ \text{V}
\end{align*}
\]

LIMITING VALUES

\[
\begin{align*}
V_{a1}=V_{a3} \text{ max} & = 2,500 \ \text{V} \\
V_{h-k} \text{ max} & = 50 \ \text{V}
\end{align*}
\]

DEFLECTION SENSITIVITY

\[
\begin{align*}
X \text{ plates} & = \frac{360}{V_{a3}} \ \text{mm/V} \\
Y \text{ plates} & = \frac{780}{V_{a3}} \ \text{mm/V}
\end{align*}
\]
Viewed from the screen end, and with the tube positioned so that the key of the base is uppermost, a positive voltage on \(X'\) will deflect the spot to the left, and a positive voltage on \(Y'\) will deflect the spot upwards.

**ARRANGEMENT OF ELECTRODES AND BASE CONNECTIONS**

**KEY BASE WITH 12 SIDE CONTACTS**

Contacts 5, 7 and 10 should be connected together externally.