

ELECTRONIC TUBE REFERENCE

31E14

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION  
CONSTRUCTION  
CATHODERAY

Fourteen-inch rectangular cathode-ray tube for television studio monitoring, using low-voltage electrostatic focus and 70-degree magnetic deflection. Manufacturer documentation warns that X-ray shielding may be necessary above 16 kV.

GENERAL CHARACTERISTICS

|                     |                   |                      |               |
|---------------------|-------------------|----------------------|---------------|
| BASE DESIGNATION    | B12A              | BASE PINS            | 12            |
| NOMINAL HEATER      | 6.3 V / 300 mA    | PARALLEL HEATER      | – / –         |
| HEATING             | Indirect          | SERIES OPERATION     | Not specified |
| CATHODE ARRANGEMENT | Separate cathodes | SECTION CONSTRUCTION | Similar       |

SECTION RATINGS

|                                                                       |         |
|-----------------------------------------------------------------------|---------|
| SECTION1 Cathode Ray                                                  |         |
| MAXIMUM PLATE VOLTAGE                                                 | 16000 V |
| CRT electrode ratings and operating data preserved in parameter rows. |         |

A 14-inch diagonal rectangular cathode-ray tube with 70-degree magnetic deflection and low-voltage electrostatic focusing, intended for television studio monitoring equipment. The datasheet warns that X-ray shielding may be necessary above 16 kV.

## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1961 AEI Industrial Valves

Published test conditions and operating points. Values on this page are preserved as reported by this source.

## 1961 AEI INDUSTRIAL VALVES

## Section 1 · Cathode Ray

| OTHER                               |                 |                                                            |
|-------------------------------------|-----------------|------------------------------------------------------------|
| PARAMETER                           | PUBLISHED VALUE | CONDITION / NOTE                                           |
| MaximumSecondFourthAnodeVoltage     | 16 kV           | DesignCentre; absolute maximum 20 kV                       |
| MinimumSecondFourthAnodeVoltage     | 10 kV           | —                                                          |
| MaximumThirdAnodeVoltage            | -500–500 V      | —                                                          |
| MaximumFirstAnodeVoltage            | 500 V           | —                                                          |
| Maximum Heater Cathode Voltage      | 180 V           | HeaterNegative DC                                          |
| Maximum Peak Heater Cathode Voltage | 400 V           | HeaterNegative; warming-up period not exceeding one minute |
| TypicalSecondFourthAnodeVoltage     | 12 kV           | —                                                          |
| TypicalFirstAnodeVoltage            | 300 V           | —                                                          |
| TypicalThirdAnodeFocusVoltage       | -300–300 V      | Focus range                                                |
| GridBiasCutoff                      | -72--30 V       | Raster cut-off                                             |
| PeakToPeakModulatingVoltage         | 24 V            | Modulation up to 150 uA                                    |

| CHARACTERISTIC                                |                 |                                      |
|-----------------------------------------------|-----------------|--------------------------------------|
| PARAMETER                                     | PUBLISHED VALUE | CONDITION / NOTE                     |
| Grid To All Other Electrodes Capacitance      | 9 pF            | Includes CRT92/7 holder              |
| Cathode To All Other Electrodes Capacitance   | 7 pF            | Includes CRT92/7 holder              |
| SecondFourthAnodeToExternalCoatingCapacitance | 1300 pF         | Approximate; includes CRT92/7 holder |
| Deflection Angle                              | 70 degree       | Magnetic deflection                  |
| ScreenDiagonal                                | 14 in           | Rectangular face                     |

# 1961 Associated Electrical Industries

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1961 ASSOCIATED ELECTRICAL INDUSTRIES

Section 1 · Cathode Ray

| OTHER                           |                 |                      |
|---------------------------------|-----------------|----------------------|
| PARAMETER                       | PUBLISHED VALUE | CONDITION / NOTE     |
| MinimumSecondFourthAnodeVoltage | 10 kV           | —                    |
| MaximumThirdAnodeVoltage        | 500 V           | —                    |
| MaximumFirstAnodeVoltage        | 500 V           | —                    |
| Maximum Heater Cathode Voltage  | 180 V           | HeaterNegative       |
| Peak Heater Cathode Voltage     | 400 V           | WarmupMaximum1Minute |
| TypicalSecondFourthAnodeVoltage | 12 kV           | —                    |

| CHARACTERISTICS       |                 |                  |
|-----------------------|-----------------|------------------|
| PARAMETER             | PUBLISHED VALUE | CONDITION / NOTE |
| GridAllCapacitance    | 90 pF           | —                |
| CathodeAllCapacitance | 70 pF           | —                |

## TUBE TINKER

An independent reference for electronic tubes, vacuum tubes, and their source documents.

[Catalog](#)   [Tube types](#)   [Full books](#)   [Blog](#)   [Feedback & corrections](#)

© 2026 Tube Tinker