



ELECTRONIC TUBE REFERENCE

B4021

Nixie electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
NIXIE

Miniature gas-filled cold-cathode Nixie numerical readout tube. Burroughs data specify a 120 V maximum ionization voltage and 120 V recommended minimum supply, with operation through an external series current-limiting resistor.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	— / —	PARALLEL HEATER	— / —
HEATING	Indirect; cold cathode	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Nixie	
MAXIMUM CATHODE CURRENT	2 mA
MINIMUM REGULATOR CURRENT	0.7 mA
MAXIMUM REGULATOR CURRENT	1.2 mA
STARTING VOLTAGE	120 V
<i>Gas-filled cold-cathode Nixie numerical-readout tube, Miniature size.</i>	

B4021 is a gas-filled cold-cathode Nixie numerical/readout device. The shared catalog identifies it with the B4021 electrical family, using a maximum ionization voltage of 120 V and a recommended minimum supply of 120 V.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1961 Nixie Burroughs

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

1961 NIXIE BURROUGHS

Section 1 · Nixie

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Ionization Voltage Maximum	120 V	—
Supply Voltage Minimum	120 V	Catalog minimum supply voltage
Cathode Current Peak	2 mA	—
Cathode Current Average	1 mA	—
Individual Cathode Wattage Maximum	0.2 W	—
Test Supply Voltage	120 V	—
Test Series Resistor	20 kOhm	—
Display Size Class	Miniature	—
Numeral Height	0.305 in	—
Recommended Socket	SK116	—
Recommended Supply Voltage	120 V	Series resistor 20 kOhm
Recommended Series Resistor	20 kOhm	Supply voltage 120 V

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode Current Minimum	0.7 mA	—
Cathode Current Maximum	1.2 mA	—

ENVIRONMENTAL		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Shock	55 G	—
Vibration	10 G	60 cps
Operating Temperature Range	-65 to +70 C	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Altitude	70000 ft	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1964 RMA EIA

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

1964 RMA EIA

Section 1 · Nixie

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Ionization voltage maximum	120 V	—
Supply voltage minimum	120 V	—
Cathode current maximum	2 mA	—
Supply voltage	120 V	TestCircuit
Series resistance	20000 Ohm	TestCircuit
Cathode current minimum	0.7 mA	Test
Cathode current maximum	1.4 mA	Test
Ambient temperature minimum	-65 degC	—
Ambient temperature maximum	85 degC	—
Altitude maximum	70000 ft	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

196X Burroughs Nixie

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

196X BURROUGHS NIXIE

Section 1 · Nixie

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Ionization voltage	120 V	Absolute rating; maximum
Minimum supply voltage	120 V	Absolute rating; minimum recommended supply
Cathode current	2 mA	Peak
Cathode current	1 mA	Average
Individual cathode dissipation	0.2 W	Maximum
Anode supply voltage	120 V	BasicCircuit test condition
Anode series resistor	20 k0hm	BasicCircuit test condition
Cathode current	0.7–1.2 mA	BasicCircuit test condition
Numeral height	0.305 in	Miniature
Recommended anode series resistor	20 k0hm	Anode supply 120 V
Pre-bias voltage	50–75 V	Referenced to on cathode