



ELECTRONIC TUBE REFERENCE

ZM1174

Nixie electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

NIXIE

Cold-cathode numerical/character indicator cross-referenced to RFT Z574M. The comparison source supplies striking, maintaining, extinction, current, display, and mechanical data for the RFT type while cautioning that comparable tubes are not necessarily electrically identical.

GENERAL CHARACTERISTICS

BASE DESIGNATION	Wire lead	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	12 mA
MINIMUM REGULATOR CURRENT	1.5 A
MAXIMUM REGULATOR CURRENT	2.5 A
STARTING VOLTAGE	150 V
MAINTAINING VOLTAGE	140 V
Cold-cathode discharge/display section; explicit published limits and operating data are retained as section parameters.	

ZM1174 is a cold-cathode Nixie indicator listed in the supplied German comparison catalog as comparable to RFT type Z574M. The referenced RFT table publishes a striking value of 150 V, a maintaining/glow value of 140 V, an extinction value of 120 V, along with cathode-current, display, environmental, and mechanical data. The catalog explicitly cautions that comparable tubes are not necessarily identical, so these mapped RFT values are retained as comparison data rather than asserted as exact original-manufacturer ratings.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1969 Nixie Mullard

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

1969 NIXIE MULLARD

Section 1 · Nixie

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Numeral/Character Height	15.5 mm	Published mechanical/display data
Maximum Peak Cathode Current	12 mA	Published peak limit

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Supply Voltage	170 V	Published operating data
Minimum Ignition Voltage	170 V	Minimum anode-to-cathode voltage necessary for ignition
Cathode Current	2.5 mA	Published average/normal value



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

196X Nixie Random Datasheets

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

196X NIXIE RANDOM DATASHEETS

Section 1 · Nixie

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Comparable RFT Type	Z574M	Catalog cross-reference; comparable types are not guaranteed identical; ComparableRFT=Z574M
Minimum Operating Supply Voltage	170 V	Published for comparable RFT type Z574M; ComparableRFT=Z574M

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode Current Minimum	1.5 mA	Published for comparable RFT type Z574M; ComparableRFT=Z574M
Cathode Current Maximum	2.5 mA	Published for comparable RFT type Z574M; ComparableRFT=Z574M
Peak Cathode Current	12 mA	Published for comparable RFT type Z574M; ComparableRFT=Z574M
Ambient Temperature Minimum	-50 °C	Published for comparable RFT type Z574M; ComparableRFT=Z574M
Ambient Temperature Maximum	70 °C	Published for comparable RFT type Z574M; ComparableRFT=Z574M
Displayed Symbols	0 to 9; decimal point left; +	Published for comparable RFT type Z574M; ComparableRFT=Z574M
Reading Direction	side	Published for comparable RFT type Z574M; ComparableRFT=Z574M
Symbol Height	13 mm	Published for comparable RFT type Z574M; ComparableRFT=Z574M
Maximum Viewing Distance	8 m	Published for comparable RFT type Z574M; ComparableRFT=Z574M
Mounting Orientation	Wire 7 facing front	Published for comparable RFT type Z574M; ComparableRFT=Z574M
Maximum Bulb Height	47.6 mm	Published for comparable RFT type Z574M; ComparableRFT=Z574M
Maximum Bulb Diameter	19 mm	Published for comparable RFT type Z574M; ComparableRFT=Z574M

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode Striking Voltage	150 V	Published for comparable RFT type Z574M; ComparableRFT=Z574M
Anode Maintaining Voltage	140 V	Published for comparable RFT type Z574M; ComparableRFT=Z574M
Anode Extinction Voltage	120 V	Published for comparable RFT type Z574M; ComparableRFT=Z574M



SOURCE DATA APPENDIX

1971 Nixie RFT

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

1971 NIXIE RFT

Section 1 · Nixie

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Comparable RFT Type	Z574M	Catalog cross-reference; comparable types are not guaranteed identical; ComparableRFT=Z574M
Minimum Operating Supply Voltage	170 V	Published for comparable RFT type Z574M; ComparableRFT=Z574M
Cathode Current Minimum	1.5 mA	Published for comparable RFT type Z574M; ComparableRFT=Z574M
Cathode Current Maximum	2.5 mA	Published for comparable RFT type Z574M; ComparableRFT=Z574M
Peak Cathode Current	12 mA	Published for comparable RFT type Z574M; ComparableRFT=Z574M
Ambient Temperature Minimum	-50 °C	Published for comparable RFT type Z574M; ComparableRFT=Z574M
Ambient Temperature Maximum	70 °C	Published for comparable RFT type Z574M; ComparableRFT=Z574M
Displayed Symbols	0 to 9; decimal point left; +	Published for comparable RFT type Z574M; ComparableRFT=Z574M
Reading Direction	side	Published for comparable RFT type Z574M; ComparableRFT=Z574M
Symbol Height	13 mm	Published for comparable RFT type Z574M; ComparableRFT=Z574M
Maximum Viewing Distance	8 m	Published for comparable RFT type Z574M; ComparableRFT=Z574M
Mounting Orientation	Wire 7 facing front	Published for comparable RFT type Z574M; ComparableRFT=Z574M
Maximum Bulb Height	47.6 mm	Published for comparable RFT type Z574M; ComparableRFT=Z574M
Maximum Bulb Diameter	19 mm	Published for comparable RFT type Z574M; ComparableRFT=Z574M

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode Striking Voltage	150 V	Published for comparable RFT type Z574M; ComparableRFT=Z574M
Anode Maintaining Voltage	140 V	Published for comparable RFT type Z574M; ComparableRFT=Z574M
Anode Extinction Voltage	120 V	Published for comparable RFT type Z574M; ComparableRFT=Z574M



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1999 Philips E-Z

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

1999 PHILIPS E-Z

Section 1 · Nixie

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Numeral height	15.5 mm	Numeral height 15.5 mm
Numeral cathode current	2.5 mA	Numeral cathode current 2.5 mA
Decimal point cathode current	0.5 mA	Decimal point cathode current 0.5 mA
Mainting voltage	3	Mainting voltage see page 3
Extinguishing voltage	115	Extinguishing voltage Vext 115
LIFE EXPECTANCY at [=2.5 mA and room temperature,	3 mA	LIFE EXPECTANCY at [=2.5 mA and room temperature, 3)
Pulse duration	100	Pulse duration Timp min, 100 Hs
numeral cathode current of 1.5 mA,	1.5 mA	numeral cathode current of 1.5 mA,
3) For bulb temperatures below 0 °C the life expectancy of the tube is substantially	0	3) For bulb temperatures below 0 °C the life expectancy of the tube is substantially

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Supply voltage	170	Supply voltage min, 170V

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
temperature of 240 °C for a maximum of 10 s,	10 a	temperature of 240 °C for a maximum of 10 s,
Ignition voltage	170 A	Ignition voltage max., 170 A%
Bulb temperature	70 oC	Bulb temperature Yulb max, +70 oC
point is connected in this way the max. decimal point current is 0,15 mA ata	0.15 mA	point is connected in this way the max. decimal point current is 0,15 mA ata

TUBE TINKER

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