

ELECTRONIC TUBE REFERENCE

ZM1182

Nixie electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION  
CONSTRUCTION  
NIXIE

Gas-filled cold-cathode front-view numerical display tube showing digits 0–9 with 16 mm characters. Manufacturer data specify approximately 180 V ignition, 145 V normal glow, and 115 V extinction voltage.

GENERAL CHARACTERISTICS

|                     |                        |                      |               |
|---------------------|------------------------|----------------------|---------------|
| BASE DESIGNATION    | –                      | BASE PINS            | 11            |
| NOMINAL HEATER      | – / –                  | PARALLEL HEATER      | – / –         |
| HEATING             | Indirect; cold cathode | SERIES OPERATION     | Not specified |
| CATHODE ARRANGEMENT | Separate cathodes      | SECTION CONSTRUCTION | Similar       |

SECTION RATINGS

|                                                                                                                                                        |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| SECTION1 Nixie                                                                                                                                         |       |
| MINIMUM REGULATOR CURRENT                                                                                                                              | 2 A   |
| MAXIMUM REGULATOR CURRENT                                                                                                                              | 3.5 A |
| STARTING VOLTAGE                                                                                                                                       | 180 V |
| MAINTAINING VOLTAGE                                                                                                                                    | 145 V |
| Single cold-cathode display section. Ignition, sustaining/extinction voltages, cathode-current limits, and display/mechanical data are retained below. |       |

The ZM1182 is a gas-filled cold-cathode Nixie display tube. The catalog shows 0 to 9 with a front viewing arrangement and a character height of 16.0 mm. Its ignition voltage is 180 V, extinction voltage is about 115 V, and normal glow voltage is about 145 V. The source is French-language material translated to English for this record.

## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1963 Siemens

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

1963 SIEMENS

## Section 1 · Nixie

| OTHER                    |                 |                  |
|--------------------------|-----------------|------------------|
| PARAMETER                | PUBLISHED VALUE | CONDITION / NOTE |
| AnodeSupplyVoltageMax    | 180 V           | —                |
| CathodeCurrentMax        | 3 mA            | —                |
| RecommendedSupplyVoltage | 200 V           | —                |

| CHARACTERISTIC            |                 |                                                   |
|---------------------------|-----------------|---------------------------------------------------|
| PARAMETER                 | PUBLISHED VALUE | CONDITION / NOTE                                  |
| ArcVoltage                | 145 V           | $I_k = 2.25 \text{ mA}$                           |
| CathodeCurrentNominal     | 2.25 mA         | —                                                 |
| LifeExpectancyContinuous  | 5000 h          | One digit continuously at $I_k = 2.25 \text{ mA}$ |
| LifeExpectancyAlternating | 50000 h         | Digit changes in less than 100 h                  |

## SOURCE OPERATING CONDITIONS

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# 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

| CHARACTERISTICS        |                 |                                                 |
|------------------------|-----------------|-------------------------------------------------|
| PARAMETER              | PUBLISHED VALUE | CONDITION / NOTE                                |
| Ignition voltage       | 180 V           | Maximum/typical threshold shown in source table |
| Operating glow voltage | 145 V           | Approximate service voltage                     |

| PARAMETER               | PUBLISHED VALUE | CONDITION / NOTE   |
|-------------------------|-----------------|--------------------|
| Extinction voltage      | 115 V           | Source table value |
| Nominal cathode current | 2.75 mA         | Main symbol/digit  |

| OTHER                        |                 |                                      |
|------------------------------|-----------------|--------------------------------------|
| PARAMETER                    | PUBLISHED VALUE | CONDITION / NOTE                     |
| Maximum supply voltage       | 180 V           | Absolute limit table                 |
| Cathode current              | 2–3.5 mA        | Main symbol/digit continuous range   |
| Maximum peak cathode current | 4 mA            | Main symbol/digit                    |
| Envelope temperature minimum | -20 degC        | Operating envelope temperature range |
| Envelope temperature maximum | 70 degC         | Operating envelope temperature range |
| Display characters           | 0 to 9          | Translated from French source        |
| Display orientation          | front           | Viewing orientation                  |
| Character height             | 16 mm           | Display geometry                     |
| Maximum tube height          | 24.5 mm         | Mechanical dimension                 |
| Maximum tube width/diameter  | 20.0 x 27.5 mm  | Mechanical dimension as printed      |



SOURCE DATA APPENDIX

## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1973 Nixie Siemens

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

1973 NIXIE SIEMENS

## Section 1 · Nixie

| CHARACTERISTICS         |                 |                                                 |
|-------------------------|-----------------|-------------------------------------------------|
| PARAMETER               | PUBLISHED VALUE | CONDITION / NOTE                                |
| Ignition voltage        | 180 V           | Maximum/typical threshold shown in source table |
| Operating glow voltage  | 145 V           | Approximate service voltage                     |
| Extinction voltage      | 115 V           | Source table value                              |
| Nominal cathode current | 2.75 mA         | Main symbol/digit                               |

| OTHER                        |                       |                                      |
|------------------------------|-----------------------|--------------------------------------|
| PARAMETER                    | PUBLISHED VALUE       | CONDITION / NOTE                     |
| Maximum supply voltage       | <b>180 V</b>          | Absolute limit table                 |
| Cathode current              | <b>2–3.5 mA</b>       | Main symbol/digit continuous range   |
| Maximum peak cathode current | <b>4 mA</b>           | Main symbol/digit                    |
| Envelope temperature minimum | <b>-20 degC</b>       | Operating envelope temperature range |
| Envelope temperature maximum | <b>70 degC</b>        | Operating envelope temperature range |
| Display characters           | <b>0 to 9</b>         | Translated from French source        |
| Display orientation          | <b>front</b>          | Viewing orientation                  |
| Character height             | <b>16 mm</b>          | Display geometry                     |
| Maximum tube height          | <b>24.5 mm</b>        | Mechanical dimension                 |
| Maximum tube width/diameter  | <b>20.0 x 27.5 mm</b> | Mechanical dimension as printed      |

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