

ELECTRONIC TUBE REFERENCE

E1T

Specialized - Switching Tube electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

COUNTERSELECTORSWITCH

Decade counting display tube with heated cathode and fluorescent readout. Internal beam selection performs decimal counting while providing direct visible indication.

GENERAL CHARACTERISTICS

BASE DESIGNATION	Duodecal	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 CounterSelectorSwitch	
AMPLIFICATION FACTOR	2
MAXIMUM PLATE VOLTAGE	300 V
Long-life decade counter tube with numerical indication.	

Valvo E1T/6370 is a decade counting tube intended for electronic counting with a visible numerical indication. It uses an indirectly heated cathode, has a 6.3 V/0.3 A heater, and is specified for operation to about 30,000 impulses per second in the recommended circuit.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1957 Philips Receiving and Amplifying Tubes

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

1957 PHILIPS RECEIVING AND AMPLIFYING TUBES

Section 1 · CounterSelectorSwitch

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	300 V	—
Maximum Counting Rate	30000 counts/s	Dependable operation
Grid 2 Voltage	300 V	—
Heater Voltage	6.3 V	—
Heater Current	300 mA	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Amperex Condensed

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

1963 AMPEREX CONDENSED

Section 1 · CounterSelectorSwitch

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published rating
Heater current	300 mA	Published rating

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum counting rate	100 kHz	CountingTube

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Philips Electron Tubes Handbook V3

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

1963 PHILIPS ELECTRON TUBES HANDBOOK V3

Section 1 · CounterSelectorSwitch

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Published electrical value	6800 pF	1)To preceding E90CC input pulse shaper (C1 = 6800 pF
fang des Impulses soil mindestens	106 V	fang des Impulses soil mindestens 20 x 106V/Sek betragen
Heater voltage	6.3 V	Chauffage: indirect par=C.A.-ou C.C.; Vf=6.3V
Heater current	300 mA	rallele If = 300 mA

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate capacitance	2 pF	Kapazitäten Ca2 10.5 pF
Grid capacitance	1 pF	Cg1 6.8 pF
Grid capacitance	4 pF	Cg4 7.7 pF

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Control-grid voltage	11.9 V	Vg1 = 11.9 t 0.1 5 V
Cathode current	0.95 mA	Ik = 0.95 mA
Screen-grid current	0.1 mA	'Ig2 = 0.1 mA
Cathode resistor	15 kohm	Rk = 15 kQ t 1%

1965 Nixie Valvo

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

1965 NIXIE VALVO

Section 1 · CounterSelectorSwitch

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	AC or DC heater
Heater current	300 mA	Indirect heater
Guaranteed life	10000 h	Average over 100 tubes
Failure factor	1.5 permille/1000h	Published reliability factor
Capacitance Ca1	4.9 pF	Published capacitance
Capacitance Ca2	10.5 pF	Published capacitance
Capacitance Cg1	6.8 pF	Published capacitance
Capacitance Cg4	7.7 pF	Published capacitance
Capacitance CD	3.5 pF	Published capacitance
Capacitance CD'	3.8 pF	Published capacitance

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
External magnetic field	—2 gauss	Any direction
Recommended ambient illumination	40–400 lux	For reliable reading
Anode supply voltage	300 V	Recommended counting circuit
Anode current	0.95 mA	Recommended counting circuit
Maximum counting frequency	30000 impulses/s	Recommended circuit
Input pulse amplitude	13.6 V	Positive input pulse; tolerance +/-15%
Input pulse leading-edge slope	20000000— V/s	Greater than published minimum
Input pulse trailing-edge slope	—1200000 V/s	Less than published maximum



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 · CounterSelectorSwitch

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage Ve	6.3 V	Heating
Heater current If	300 mA	Heating
Heater voltage Vi	6.3 V	Characteristics
Heater current I	300 mA	Characteristics
Anode No.1 to all other electrodes cal/R	1 pF	Deflection
Grid No.1 to all other electrodes Cgl/R	1 pF	Deflection
Grid No.4 to all other electrodes Cg4/R	4 pF	Deflection
Supply voltage Vp	300 A	Operating Characteristics
Grid No.1 supply voltage Vbg1	11.9 V	Operating Characteristics
Grid No.2 supply voltage Vbg2	2 v	Operating Characteristics
Luminescent screen voltage Vy	300 v	Deflection
Cathode current Ik	0.95 mA	Deflection
Grid No.2 current IgZ	2 mA	Deflection
Cathode resistor Rk	15 kΩ	Deflection
Anode No.1 resistor Raj	39 kΩ	Deflection
Anode No.2 resistor Ra2	2 MΩ	Deflection
This condition can be realised by using a voltage divider Rj, Rg, R3 with	3 a	Operating Characteristics
The input pulse at D should have a positive value of	13.6 a	Operating Characteristics
Connected to the preceeding E90CC pulse shaper (C1 =	90 pF	Operating Characteristics

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
preceeding E90CC interstage pulse shaper (C; =	90 pF	Operating Characteristics

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode No.2 to all other electrodes Caz/R	2 pF	Capacitances

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