
LIST OF SYMBOLS

Symbols denoting electrodes and electrode/element connections

Heater or filament	f
Heater or filament tap	f _c
Cathode	k
Input cathode lead	k _i
Output cathode lead	k _o
Grid	g
Electrostatic deflection plate or rod	D
Fluorescent screen	ℓ
Anode	a
Anode of a detection diode	d
Tube pin which must not be connected externally	i. c.
Tube pin which may be connected externally	n. c.
External conductive coating	m
Internal shield	s

Remarks

Equivalent electrodes of a multiple unit tube are distinguished by means of accents; e.g. the anodes of a double-anode rectifying tube are indicated by a and a'.

Similar electrodes of the same electrode system are distinguished by means of an additional numeral; the electrode nearest to the cathode has the lowest number.

The electrodes of multiple-unit tubes, in which the units are different, are distinguished by means of the following indices:

diode	D
triode	T
tetrode	Q
pentode	P
hexode or heptode	H

Symbols denoting voltages (average values unless otherwise stated)

Symbol for voltage, followed by an index denoting the relevant electrode/element	V
Heater or filament voltage	V_f
Peak value of a voltage	V_p
Peak to peak value of a voltage	V_{pp}
Supply voltage of tube electrodes	V_b
Anode voltage of a detection diode	V_d
RMS value of a voltage	V_{RMS}
Heater starting voltage	V_{fo}
Grid voltage	V_g
A.C. input voltage	V_i
Voltage between cathode and heater	V_{kf}
D.C. voltage supplied by a rectifying tube	V_o
A.C. output voltage	V_o
Voltage for gain control	V_R
Transformer voltage (secondary)	V_{tr}
Anode voltage under cold condition or cut-off condition (I_k approx. 0)	V_{a0}
Screen grid voltage under cold condition or cut-off condition (I_k approx. 0)	V_{g20}

Remarks

In the case of indirectly heated tubes the electrode voltages are specified with respect to the cathode.

In the case of directly heated tubes the electrode voltages are specified with respect to the negative terminal of the filament, unless otherwise stated.

Symbols denoting currents

Remarks

The positive electrical current is directed opposite to the direction of the electron current.

The symbols quoted represent average values unless otherwise stated.

Symbol for current followed by an index
denoting the relevant electrode

I

Heater or filament current

I_f

Anode current

I_a

Current of a detection diode

I_d

RMS value of a current

I_{RMS}

Grid current

I_g

Cathode current

I_k

Current to fluorescent screen

I_ℓ

D. C. current supplied by a rectifying tube

I_o

Peak value of a current

I_p

Symbols denoting powers

Symbol for power followed by an index
denoting the relevant electrode

W

Anode dissipation

W_a

Grid dissipation

W_g

Input power

W_i

Anode supply D. C. power

W_{i_a}

Dissipation of a fluorescent screen

W_ℓ

Output power

W_o

Symbols denoting capacitances

See IEC Publication 100

Symbols denoting resistance and impedance

When for one of the following symbols Z is used instead of an R the word "resistance" should read "impedance"

External resistance in an anode lead	R_a
External A.C. resistance or load resistance in an anode lead	$R_{a\sim}$
Load resistance of a push-pull amplifier (anode to anode)	$R_{aa\sim}$
Equivalent noise resistance	R_{eq}
External resistor in a grid lead or grid circuit resistance	R_g
Input resistance	r_g
Internal resistance	R_i
Resistor in a cathode lead	R_k
External resistance between cathode and heater	R_{kf}
Protecting resistance in the anode lead of a rectifying tube	R_t

Symbols denoting various quantities

Brightness	B
Bandwidth	B
Distortion factor	d
n-th harmonic distortion	d_n
Noise factor	F
Frequency	f
Pulse repetition rate	f_{imp}
Power gain	G
Voltage gain	$V_o/V_{i,g}$
Height above sea level	h
Magnetic field strength	H
Cross modulation factor	K
Hum modulation factor	m_b
Transformer ratio	n
Transconductance	S
Conversion conductance	S_c
Effective transconductance of an oscillator	S_{eff}
Temperature	t
Ambient temperature	t_{amb}
Time	T
Averaging time of current or voltages	T_{av}
Cathode heating time	T_h
Pulse duration	T_{imp}
Shadow section on a fluorescent screen	α
Light sector on a fluorescent screen	β
Duty factor	δ
Phase angle	φ
Efficiency	η
Wave length	λ
Amplification factor	μ
Amplification factor of grid No. 2 with respect to grid No. 1	μ_{g2g1}