

TYPE DESIGNATION CODE FOR RADIO AND TELEVISION RECEIVING TUBES

This type designation code relates to tubes designed for use primarily in reproducing and recording equipment for domestic applications such as: radio and television receivers, record players, tape recorders and audio amplifiers, home cinema projectors, hearing aids, and similar equipment.

The type designation consists of:

TWO OR MORE LETTERS FOLLOWED BY A SERIAL NUMBER

Example and explanation:

<div style="text-align: center; margin-bottom: 5px;">PL 500</div>		
<p>D ≤ 1.4 V; series or parallel supply</p> <p>E 6.3 V; series or parallel supply</p> <p>G miscellaneous; parallel supply</p> <p>H 150 mA; series supply</p> <p>L 450 mA; series supply</p> <p>P 300 mA; series supply</p> <p>U 100 mA; series supply</p> <p>X 600 mA; series supply</p> <p>The use of letters A (4 V), B (180 mA), C (200 mA), F (12.6 V), K (2 V), V (50 mA) and Y (450 mA) has been discontinued.</p>	<p>A diode (excluding rectifiers)</p> <p>B double diode with common cathode (excluding rectifiers)</p> <p>C triode (excluding power output triodes)</p> <p>D power output triode</p> <p>E tetrode (excluding power output tetrodes)</p> <p>F pentode (excluding power output pentodes)</p> <p>L power output tetrode or power output pentode</p> <p>H hexode or heptode (of the hexode type)</p> <p>K octode or heptode (of the octode type)</p> <p>M tuning indicator</p> <p>Y half-wave rectifier</p> <p>Z full-wave rectifier</p>	<p>The serial number consists of three figures the first figure indicating the type of base¹⁾:</p> <p>1 miscellaneous base types</p> <p>2 miniature 10-pin base</p> <p>3 octal base</p> <p>5 magnoval base</p> <p>8 noval base</p> <p>9 miniature 7-pin base</p> <p>The last figure of tetrodes and pentodes (excluding power output tubes) indicates the type of characteristic, as follows:</p> <p>even figure: sharp cutoff characteristic</p> <p>odd figure: variable-mu characteristic</p>

¹⁾ The use of remaining figures for other base types and the use of serial numbers of one and two figures has been discontinued.

TYPE DESIGNATION CODE FOR PROFESSIONAL RECEIVING-TYPE TUBES

This type designation code relates to professional receiving-type vacuum tubes designed for use primarily in communication equipment, data processing equipment or in other industrial applications.

The type designation consists of:

TWO OR MORE LETTERS FOLLOWED BY A SERIAL NUMBER

Example and explanation:

ECC2000		
First letter indicates the heater voltage	Second and subsequent letters indicate the construction and/or application of the tube. (If there is more than one electrode system these letters are placed in alphabetical order.)	Serial number
E 6.3 V; parallel or series supply	A diode C triode (excluding power output triodes) D power output triode E tetrodes (excluding power output tetrodes) F pentode (excluding power output pentodes) L power output tetrode or power output pentode H heptode M tuning indicator	The serial number consists of four figures, the first figure indicating the type of base ¹⁾ : 1 miscellaneous 2 miniature 10-pin base 3 octal base 5 magnoval base 8 noval base 9 miniature 7-pin base

¹⁾ Serial numbers for prototypes always end in zero, those for variants in one of the figures 1 to 9. The other first figures will be used for new base types as required.

TYPE DESIGNATION CODE FOR CATHODE-RAY TUBES

This type designation code relates to cathode-ray tubes for all applications such as: television and radar display tubes, oscilloscope tubes, monitor tubes and view finders.

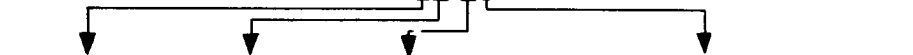
The type designation consists of:

ONE LETTER FOLLOWED BY TWO GROUPS OF FIGURES JOINED BY A HYPHEN, AND ONE OF TWO LETTERS

Example and explanation:

D10-11GH

A59-11W



First letter indicates the application and or construction of tube.	First figure or group of figures indicates the screen dimensions.	Second figure or group of figures.	Final letters indicate the screen properties.
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A TV display tube for domestic applications	For rectangular screen the screen diagonal in cm.	Serial number	The first letter denotes the colour of the fluorescence (or phosphorescence in the case long or very long persistence screens) according to the regions of the Kelly Chart of color designations for lights, where applicable: A Reddish-purple, purple, bluish-purple B Purplish-blue, blue, greenish-blue D Blue-green G Bluish-green, yellowish-green K Yellow-green L Orange, orange-pink R Reddish-orange, red, pink, purplish-pink, purplish-red, red-purple Y Greenish-yellow, yellowish-orange W indicates the "standard white" television display tube phosphor X indicates tri-colour screens.
D Oscilloscope tube, siggle trace	For circular screens the screen diameter in cm.		The second letter is a serial letter to denote other specific differences in screen properties.
E Oscilloscope tube, multiple trace			Word description of persistence. (Time to decay to 10 % of initial light output less than
F Radar display tube, direct view			1 u sec. very short 1 msec. to medium
L Display storage tube			1 u sec. to short 100 msec.
M TV display tube for professional applications, direct view			10 u sec. 100 msec. long
P Display tube for professional applications, projection			10 u sec. to medium to 1 sec.
Q Flying spot scanner			1000 u sec. short more than very long 1 sec.

GROUPS OF LETTERS ALLOCATED TO EXISTING PHOSPHORS

Designation		EIA number	Colour		Persistence (10 %)
New	Old		Fluorescence	Phosphorescence	
BA	C	P11	purplish blue		very short
BC	V		purplish blue		
BD	A		blue		very short
BE	B	P32	blue	blue	medium short
BF	U		blue		medium short
GB	M	P24	purplish blue	yellowish green	long
GE	K		green	green	short
GH	H	P31	green	green	medium short
GJ	G		yellowish green	yellowish green	medium
GK	G ¹⁾	P2	yellowish green	yellowish green	medium
GL	N		yellowish green	yellowish green	medium short
GM	P	P7	purplish blue	yellowish green	long
GN	J		blue	green	2)
GP			bluish green/green	green	medium short
LA	D	P33	orange	orange	medium
LB	E		orange	orange	long
LC	F		orange	orange	very long
LD	L		orange	orange	very long
RA			reddish orange		medium
YA	Y		yellowish orange	yellowish orange	medium
W	W		white for TV display tubes		
X	X		three-colour for TV display tubes		

¹⁾ Used for colour TV.

²⁾ Depends on external stimulation.

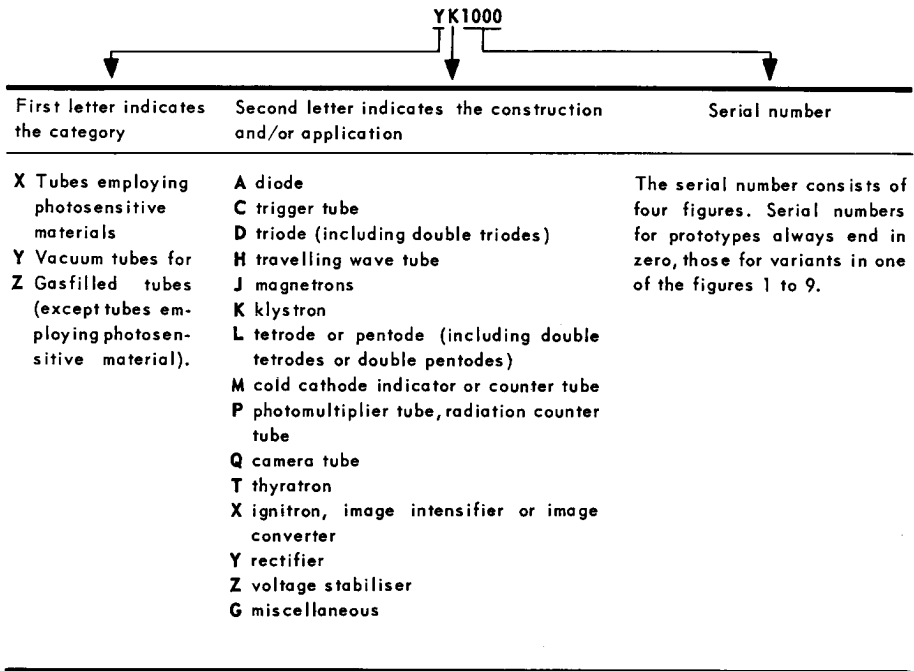
TYPE DESIGNATION CODE FOR PROFESSIONAL TUBES

This type designation code relates to tubes designed for use primarily in radio or television transmitting equipment, in navigation or communication equipment or in other industrial applications.

The type designation consists of:

TWO LETTERS FOLLOWED BY A SERIAL NUMBER

Example and explanation:



CATHODE-RAY TUBES (Old system)

The type number consists of two capital letters followed by two sets of figures (e.g. DG13-2, MW31-16).

- First letter: indicates the method of focusing and deflection.
- Second letter: indicates properties of the screen.
- First group of figures: indicates dimensions of the screen.
- Second group of figures: indicates a serial number.

The key to this system is given in the following tables.

First letter

- A - Electrostatic focusing and electromagnetic deflection.
- D - Electrostatic focusing and electrostatic deflection in two directions.
- M - Electromagnetic focusing and electromagnetic deflection.

Second letter

Indicates the phosphor screen properties.

First group of figures

- For round tubes: screen diameter in cm
- For rectangular tubes: screen diagonal in cm

Second group in figures

Serial number

TRANSMITTING TUBES (Old system)

The type number consists of two or three capital letters followed by two sets of figures. For some types a group of letters is added (e.g. TAL12/10, DCG4/1000G).

First letter:	indicates the tube classification.
Second letter:	indicates type of filament or cathode.
First group of figures:	indicates operating voltage.
Second group of figures:	indicates power.
Added letters:	indicate the tube base.

The key to this system is given in the following tables.

First letter

D	- Rectifying tube (included grid-controlled tubes)
M	- Triode (A.F. amplifying tube or modulator)
P	- Pentode
Q	- Tetrode
T	- Triode (R.F., A.F. or oscillator tube)

For tubes having dual systems two of the above mentioned letters are used (e.g. QQC04/15).

Second letter (third letter for tubes having dual systems)

A	- Directly-heated tungsten filament
B	- Directly-heated thoriated tungsten filament
C	- Directly-heated oxide-coated filament
E	- indirectly-heated oxide-coated cathode

Third letter (fourth letter for tubes having dual systems)

G	- Mercury-vapour filling
H	- Helix or other integral cooler
L	- Forced air cooling
W	- Water cooling
X	- Xenon filling

When the type number does not contain a letter indicating the cooling, the tube is radiation-cooled.

First group of figures

Rectifying tubes:	Approx. D.C. output voltage in kilovolts in a three-phase half-wave rectifying circuit.
Transmitting tubes:	Approx. max. anode voltage in kilovolts.

Second group of figures

Rectifying tubes:	Approx. D.C. output power in watts or kilowatts per tube in a three-phase half-wave rectifying circuit.
R.F. tubes:	Approx. output power in watts or kilowatts in class C telegraphy.
Modulators:	Approx. anode dissipation in watts or kilowatts.

Added letters

B	- Cables
E	- Medium 7p-base
ED	- Edison base
EG	- Goliath base
G	- Medium 4p-base
GB	- Jumbo 4p-base
GS	- Super jumbo 4p-base
N	- Medium 5p-base
P	- P-base

PHOTOTUBES AND PHOTOMULTIPLIERS (old system)

The type number consists of two figures followed by two letters (e.g. 90AV).

First figure: indicates the tube base

Second figure: indicates a serial number

First letter: indicates the type of cathode

Second letter: indicates the class of phototube

Third letter: letter P only for photomultipliers.

The key for this system is given in the following tables.

First figure

2 - Octal 8p-base

3 - Octal 8p-base

5 - Special base

8 - Noval 9p-base

9 - Miniature 7p-base.

Second figure - Serial number

First letter

A - Caesium-antimony cathode (blue sensitive)

C - Caesium-on-oxidized-silver cathode (red sensitive)

U - Caesium-antimony cathode with quartz window

T - Tialkali cathode.

Second letter

G - Gasfilled

V - High vacuum

VOLTAGE STABILIZERS (old system)

The type number consists of a number followed by a capital letter, a figure and in some cases by a second capital letter (e.g. 85A2, 150C1K).

- Number: indicates burning voltage
- First letter: indicates the current range
- Figure: indicates a serial number
- Second letter: indicates the tube base.

The key for this system is given in the following tables.

Number

Average burning voltage in volts.

First letter

- A - max. 10 mA
- B - max. 22 mA
- C - max. 40 mA
- D - max. 100 mA
- E - max. 200 mA

Figure

Serial number

Second letter

- E - Edison
- K - Octal 8p-base
- P - P-base