4-VOLT A.C. VALVES WITH QUICK-HEATING CATHODES AND SIDE-CONTACT BASES

Type Number	Valve type	Maximum dimensions mm	Base (Connection reference in brackets) [1]	Application (see p. 2)	Filament data: Heating	Filament data: Voltage Volts	Filament data: Current Amps.	Anode voltage Va Volts	Anode current Ia mA	Neg. grid bias V_{g1} Volts	Screen-grid voltage V_{g2} Volts	Screen-grid current I_{g2} mA	Voltage on grids 3 (and 5) $V_{g3(5)}$ Volts	Voltage on grid 4 V_{g4} Volts	Mutual Conduct. S mA/V	Amplification factor μ	Internal resistance Ri Ohms	External anode resist. or optimum matching imped. Ra Ohm	Output at 10 % distortion Wo Watts	Grid A.C. voltage at the indicated output Vi $V_{R.M.S.}$	Max. anode dissipation $W_{a\,max}$ Watts	Grid anode capacity C_{ag1} μμF	Type Number
AK2	Octode	116×46	P35 (38)	4	indir.	4,0	0,65	250	1,6[2]) <0,015	—1,5	90	2,0[3])	70	—1,5 —25	0.6[4]) <0,002	—	1.6.10⁶ >10⁷	—	—	—	—	<0,06[19])	AK2
AH1	Variable-Mu Hexode	110×46	P35 (35)	5	indir.	4,0	0,65	250	1,7[2]) <0,15	—2,0 —24	80	2,6[3])	—12 or R_{g3} = 0,5 MΩ	80	0.55[4]) <0,002	—	2,0.10⁶ >10⁷	—	—	—	—	<0,003	AH1
				1, 2	indir.	4,0	0,65	250	3,0 <0,015	—2,0 —24	80	1,1[6])	—2,0 —24	80	1,8 <0,002	—	2,0.10⁶ >10⁷						
AF3	Variable-Mu Pentode	106×43	P30 (34)	1, 2	indir.	4,0	0.65	250	8.0 <0,015	—3,0 —55	100	2,6	0	—	1,8 <0,002	2200	1,2.10⁶ >10⁷	—	—	—	—	<0,003	AF 3
AF7	Duodiode	106×43	P30 (34)	1, 2, 7 8, 11	indir.	4,0	0,65	250	3,0	—2,0	100	1,1	0	—	2,1	4200	2,0.10⁶	—	—	—	—	<0.003	AF7
AB2	Triode	85×29	V24 (53)	13	indir.	4,0	0,65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	AB2
ABC1	Duodiode-Triode	100×37	P30 (28)	9	indir.	4,0	0,65	250	4,0	—7,0	—	—	—	—	2,0	27	13.500	—	—	—	—	—	ABC1
AC2	Triode	100×37	P30 (26)	3, 6 10, 11	indir.	4,0	0,65	250	6,0	—5,5	—	—	—	—	2,5	30	12.000	—	—	—	—	1,7	AC2
AL1	Power Pentode	115×51	P35 (30)	12	dir.	4,0	1,1	250	36	—15	250	6,8	—	—	2,8	—	43.000	7.000	3,1	9,7	9	—	AL1
AL2	Power Pentode	115×46	P35 (32)	12	indir.	4.0	1,0	250	36	—25	250	4			2,6	—	60.000	7.000	3,8	14	9	—	AL2
				15	indir.	4,0	1,0	250	2×33 2×40.5	Rk = 350 Ω	250	2×3,5 2×7	—	—	—	—	—	6600	0 11,5[13])	—	—	—	
AL4	High-sensitivity Power Pentode	115×50	P35 (31)	12	indir.	4,0	1,75	250	36	Rk = 150 Ω[7])	250	5	—	—	9,5	—	50.000	7.000	4,3	3,6	9	—	AL4
ABL1	Duodiode and high sensitivity Power Pentode	130×52	P35 (33)	13, 12	indir.	4,0	2,25	250	36	Rk = 150Ω[7])	250	5	—	—	9,5	—	50.000	7.000	4,3	3,6	9	—	ABL1
AL5	High-sensitivity Power Pentode	117×51	P35 (31)	12	indir.	4,0	2.0	250	72	—14	275	7	—	—	8,5	—	22.000	3.500	8,8	8,2	18	—	AL5
				15	indir.	4.0	2,0	250	2×58 2×65	Rk = 120 Ω	275	2×6 25 2×10,5	—	—	—	—	—	4500	0 19,5[14])	—	—	—	
AD1	Power Triode	135×58	P35 (24)	12	dir.	4,0	0.95	250	60	—45	—	—	—	—	—	4	670	2.300	4,2[8])	30	15	—	AD1
				15	dir.	4,0	0,95	250	2×60 2×62,5	Rk = 375 Ω	—	—	—	—	—	—	—	4000	0 9,2[15])	—	—	—	
AM1	Tuning Cross [9])	75×28	P26 (39)	14	indir.	4,0	0,3	250[10]) max.	0,095 0,021	0[11]) —5[12])	—	Is=0.13 Is=0,14	—	—	9,5	—	—	2,0.10⁶	—	—	—	—	AM1
AM2	Electron ray Tuning Indicator	75×31	P30 (40)	14	indir.	4,0	0,32	250[16]) 250[16]) 250[16])	—	—	Vs=250 Vs=250 Vs=250	—	Vg′=+3 Vg′=0 Vg′=—6	Θ=160° Θ=150° Θ=5°[18])	—	—	—	—	—	—	—	—	AM2
								250[16]) 0[16])	—	—	Vs=250 Vs=250	—	Vg′=0 Vg′=0	Θ=150° Θ=95°[18])	—	—	—	—	—	—	—	—	
								250[17])	3	—3,5	—	—	—	—	2,0	50	25.000	—	—	—	—	—	

[1]) See page 15. The numeral after the letter gives the maximum base diameter in mm.
[2]) The data of this horizontal column apply for the oscillating condition at V_{osc} = 8·5 $V_{R.M.S.}$ (I_{g1} = 100 μA) and for all-wave receivers. In the shortwave range the valve must not be controlled by A.V.C. The grid leak resistance amounts to 50,000 ohms and is connected to the neutral.
[3]) Screen-grid current $I_{g3} + I_{g5}$ = 3·8 mA.
[4]) Conversion conductance.
[5]) The data of this horizontal column apply for the oscillating condition at V_{osc} = 9 $V_{R.M.S.}$
[6]) $I_{g2} + I_{g4}$.
[7]) Only with automatic grid bias. At this value of the cathode resistance the grid bias is about — 6 V.
[8]) At 5 % distortion.
[9]) Electron ray tuning indicator.
[10]) Voltage at grid and triode anode series resistance.
[11]) At this voltage the fluorescent screen is covered with light sectors of 10° (measured at the edge of the screen).
[12]) At this voltage the fluorescent screen is covered with light sectors of 90° (measured at the edge of the screen).
[13]) At 3 % distortion.
[14]) At 5·1 % distortion.
[15]) At 1·3 % distortion.
[16]) Voltage at the triode anode.
[17]) Data for using the triode section for other amplifier purposes.
[18]) Light angle, measured at the edge of the screen.
[19]) Capacity between anode and grid 4.