Oktodes (also applies to Heptodes, Hexodes)

Problem:

The RoeTest has 2 positive (normally anode voltage and G2 voltage) and two negative (normally G1 + G3 voltages) voltage sources (besides the heater voltage supply). But Oktodes have more electrodes than voltage sources are available.

Solution:

The approach is the same as with other tube testing devices. Just connect several electrodes to a voltage source and the electrodes are measured together.

Example: KK2

An excerpt from a data sheet:

		Strom-sparende Schaltung	Schaltung für Kurzwellen
Heizspannung	Vf	= 2,0	2,0 V
Heizstrom	If	= ca. 0,13	ca. 0,13 A
Anodenspannung ...	Va	= 135	135 V
Hilfsanodenspann. ..	$Vg2$	= 135	135 V
Schirmgittersp.	$Vg3,5$	= 45	90 V
Neg. Gittervorspann..	$Vg1$	= 0	0 V
Oszillatorsp. am Gitter[1])	$Vosz$	= 8	V_{eff}
Gitterstrom des 1. Gitters	$Ig1$	= 120	50 µA
Neg. Gitterspannung..	$Vg4$	=0/—12	—3V (fest)
Anodenstrom (bei $Vg4$ = 0 V) .	Ia	= 0,8	2,9 mA
Hilfsanodenstrom	$Ig2$	= 2,0	3,7 mA
Schirmgitterstrom ...	$Ig3+Ig5$	= 0,7	2,9 mA

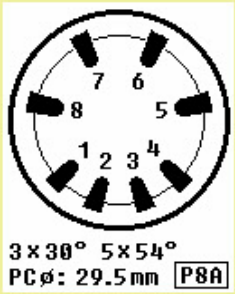
A and G2 are connected to a common voltage source (+1), G3,5 are connected to the second positive voltage source (+2), G1 is connected to the first negative voltage source (-1) and G4 to the second negative voltage source (-2). The correct assignment of the electrodes to the voltage sources is done by the “tube type” (see associated file). There is defined which electrode is connected to which voltage source.

As there are different possibilities of the assignment there are also different data sets (for example Oktode, Oktode2, …).

So when measuring A+G2 are measured together. The measured current must therefore be compared to a total of 6.6 mA for 100% (2.9 mA anode current and 3.7 mA G2 current). According to this the tube data have to be defined:

	System A	System B	System C
Röhren-(System)art:	Oktode2	-	-

Sockelbelegung:



		System A	System B	System C
	Stift 1:	S		
	Stift 2:	F1		
	Stift 3:	F2		
	Stift 4:			
	Stift 5:	G2		
	Stift 6:	G1		
	Stift 7:	G3		
	Stift 8:	A		
(ext.Seite)	Stift 9:			
(ext.Oben)	Stift 10:	G4		

Sockel:

Außenkontakt P8A

A = Anode
G1-5 = Gitter
K = Kathode
F1,F2,FM = Heizfaden
S = Schirmung
IV = nicht verbinden
L= Leuchtschirm, A1,A2,St1,St2

Sockelbeleg. | statische Daten | Grenzwerte | sonst. | Info | Bild

Stat.Daten:

		System A	System B	System C
S2 +1	A / L (V)	135,0	0,0	0,0
S3 -1	G1 (V)	0,00	0,00	0,00
S4 +2	G2/An/Stn (V)	90,0	0,0	0,0
S5 -2	G3/G4Okt. (V)	0,0	0,0	0,0
	G4/G5 (V)	= Stiftzuordnung gemäß Röhrenart		
	A/L Soll (mA):	6,60	0,00	0,00
	G2/An Soll (mA):	2,90	0,00	0,00
	Steilheit (mA/V):	0,00	0,00	0,00
	Verstärkung (u):	0,0	0,0	0,0
	Durchgriff:	0,0	0,0	0,0
	Ri (KOhm):	0,0	0,0	0,0

Sockelbeleg. | statische Daten | Grenzwerte | sonst. | Info | Bild

Bemerkungen zur Röhre: | **Hilfe zu Röhrenart:**

= FC2, KK32, VKK2, TKK2, 0202, VO2S, 0202, MO210, BMO61, BK22, 2B5_Ult,

A+G2=135V(an A), G3/G5=90V(an G2), Datenblatt: A=2,9mA + G2=3,7mA (=6,6mA), G3/G5=2,9mA