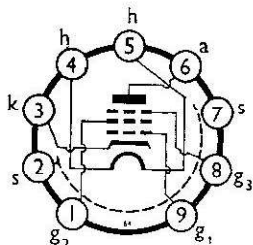


The Z729 is a commercial equivalent of CV2901.

An indirectly heated pentode with low hum and low microphony, suitable for use in low level low frequency amplifiers, measuring instruments, industrial control circuits, etc. Its low grid current makes it particularly useful in circuits requiring a high input impedance.

BASE CONNECTIONS AND VALVE DIMENSIONS



View from underside of base.

Base : B9A
Bulb : Tubular
Max. overall length : 56 mm.
Max. seated length : 49 mm.
Max. diameter : 22.2 mm.

HEATER

V_h	6.3	V
I_h	0.2 (approx)	A

MAXIMUM RATINGS

V_b	550	V
V_a	300	V
V_{g2}	250	V
* $V_{a,g2,g3}$	250	V
P_a	1	W
P_{g2}	0.2	W
* $P_{a+g2+g3}$	1.2	W
I_k	6	mA
V_{h-k}	150	V
† R_{g1-k} (fixed bias)	1	MΩ
† R_{g1-k} (cathode bias)	2	MΩ

*Triode connection.

†At $P_a + P_{g2} = 1.2W$, $V_a = 300V$.

CAPACITANCES (of cold externally unshielded valve)

C_{g1-a}	0.025 pF	C_{g1-h}	0.0025 pF
C_{g1} -all less a	4.0 pF	C_a -all less $g1$	5.5 pF

CHARACTERISTICS

Pentode Connection

V_a	250	V
V_{g2}	140	V
V_{g3}	0	V
V_{g1}	-2	V
I_a	3.0	mA
I_{g2}	0.55	mA
I_{g1}	0.05	μA
g_m	1.85	mA/V
r_a	2	MΩ
$\mu(g1-g2)$	38	—

THE M-O VALVE CO. LTD. · BROOK GREEN · LONDON · W.6
a subsidiary of
THE GENERAL ELECTRIC CO. LTD. OF ENGLAND

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Z729/EF86

Triode Connection

$V_{a,g2,g3}$	250	V
V_{g1}	-5	V
I_k	4.0	mA
I_{g1}	0.06	μ A
g_m	2.0	mA/V
r_a	16.5	k Ω
μ	33	—

TYPICAL OPERATION

AF Amplifier. Pentode Connection.

V_b (V)	R_a (k Ω)	I_k (mA)	R_{g2} (M Ω)	R_k (k Ω)	R_{g1} (max) (M Ω)	Gain	$V_{out}\dagger$ (V)	$D_{tot}\dagger$ (%)	R_g^* (k Ω)
400	100	3.3	0.39	1.0	22	124	87	5	330
300	100	2.45	0.39	1.0	36	116	64	5	330
200	100	1.65	0.39	1.0	80	106	40	5	330
400	220	1.55	1.0	2.2	44	200	73	5	680
300	220	1.1	1.0	2.2	80	188	54	5	680
200	220	0.75	1.0	2.2	100	170	36	5	680

AF Amplifier. Triode Connection.

V_b (V)	R_a (k Ω)	I_a (mA)	R_k (k Ω)	R_{g1} (max) (M Ω)	Gain	$V_{out}\dagger$ (V)	$D_{tot}\dagger$ (%)	R_g^* (k Ω)
400	47	3.7	1.2	3.9	24.5	64	4.5	150
300	47	2.7	1.2	9	24	43	3.8	150
200	47	1.85	1.2	33	23.5	22	3.1	150
400	100	2	2.2	9	28.5	73	4.0	330
300	100	1.5	2.2	21	28.5	50	3.8	330
200	100	1.0	2.2	72	27.5	27.5	3.3	330
400	220	1.05	3.9	24	32	74	3.8	680
300	220	0.8	3.9	60	31	51	3.7	680
200	220	0.5	3.9	100	30.5	28	3.1	680

*Following valve grid resistor.

$\dagger V_{out}$ and distortion at the start of positive grid current. At lower output values, the distortion is approximately proportional to the input voltage.

INSTALLATION

The valve may be mounted in any position. The use of a retaining device is recommended. The valve is internally screened.