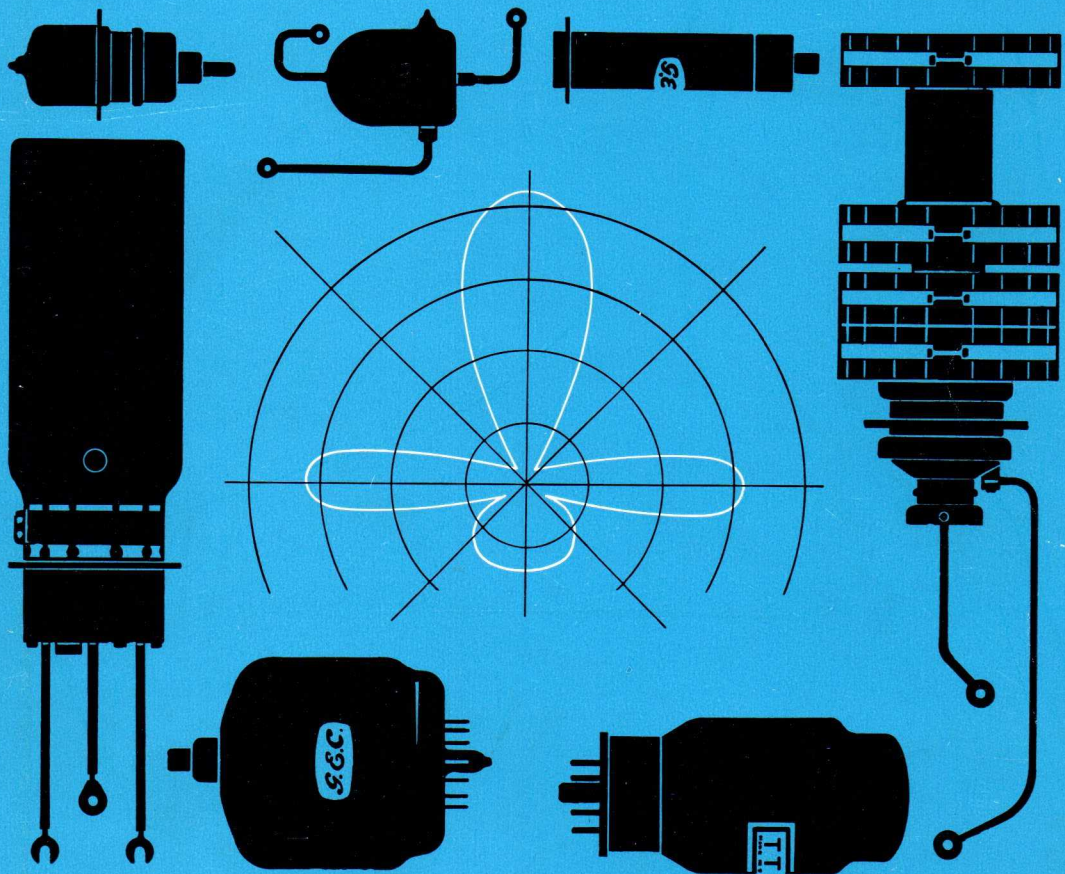
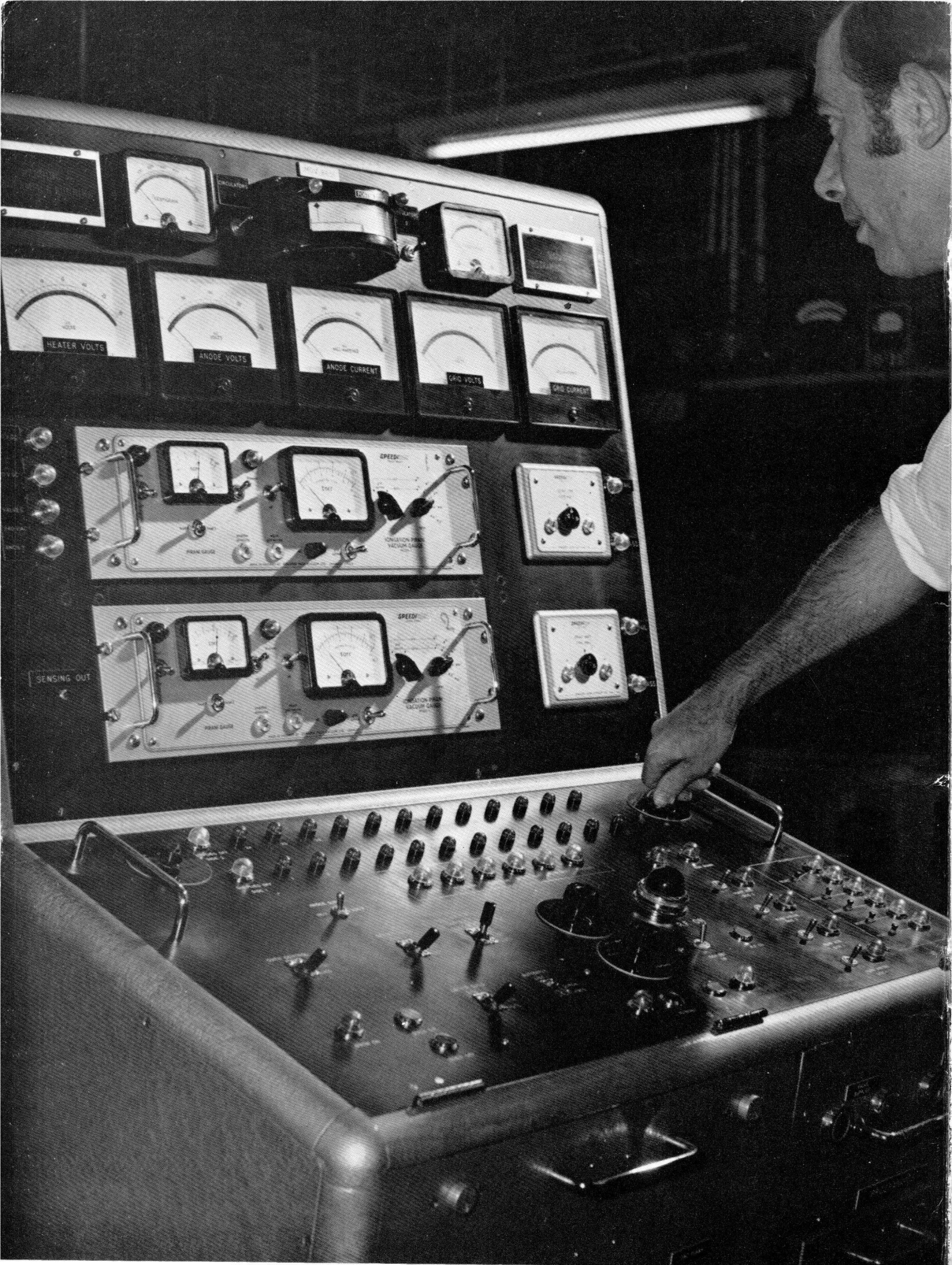




TRANSMITTING & INDUSTRIAL TUBES



THE M-O VALVE COMPANY LIMITED



Programming automatic pump unit for high figure of merit tubes



Transmitting and Industrial Tubes

for

Audio Equipment
Communications
Instrumentation
Industrial Heating
Linear Accelerators
Modulators
Nucleonics
Power Supplies
Pulse Circuitry
Radar
Switching
Telemetry
Ultrasonics
Vibrators
Wide Band Amplifiers
X-Ray Equipment

The M-O Valve Co Ltd is a member of THE GEC ELECTRONIC TUBE CO LTD, a management company which unites the activities of:

The M-O Valve Co Ltd

Brook Green Works, Hammersmith, London W6 7PE. Tel: 01-603 3431
Telex: 23435. Cables: Thermionic London

English Electric Valve Co Ltd

Waterhouse Lane, Chelmsford, Essex, CM1 2QU. Tel: 0245 61777
Telex: 99103. Cables: Enelectico, Chelmsford

SAIT ELECTRONICS AFD. M.E.C.
Strevelsweg 700/507-Rotterdam-Tel. 010-27 96 60

preface

The M-O Valve Company Limited, a member of The GEC Group of Companies, manufactures a wide range of electronic tubes and cathode ray devices for industrial, professional and military uses. This catalogue presents a summary of the characteristics of transmitting and industrial tubes, and complete technical data can be obtained on application. Two other catalogues are available summarising the range of microwave tubes and devices and instrument and radar cathode ray tubes.

La societe M-O Valve Company Limited, membre du The GEC Group of Cies, produit une grande variété de tubes électroniques et dispositifs à rayons cathodiques pour usages industriels, professionnels et militaires. Ce catalogue ne présente qu'un résumé des caractéristiques techniques des tubes émetteurs et industriels, les notices techniques détaillées sont disponibles sur demande. Deux autres catalogues abrégés dérivant les tubes à rayons cathodiques pour instrumentation et applications radar ainsi que les composants hyperfréquences sont également disponibles.

Die M-O Valve Company, eine Tochtergesellschaft der General Electric Company Limited, stellt ein umfangreiches Programm von Elektronenröhren und Kathodenstrahlröhren für industrielle, technisch-wissenschaftliche und militärische Zwecke her. Der vorliegende Katalog enthält eine Zusammenfassung der wichtigsten Eigenschaften unserer Senderöhren und Röhren für industrielle Zwecke. Vollständige technische Daten übersenden wir Ihnen gern auf Anfrage. Neben diesem Katalog sind zwei weitere mit Angaben über Mikrowellenröhren und -schaltteile sowie über Kathodenstrahlröhren für Instrumenten- und Radarzwecke erhältlich.

La M-O Valve Company Limited, un membro del The GEC Group of Companies, produce una vasta gamma di tubi elettronici e dispositivi a raggi catodici per applicazioni industriali, professionali e militari. Questo catalogo riassume le caratteristiche tecniche essenziali delle valvole termoioniche trasmettenti ed industriali, le specifiche dettagliate sono disponibili su richiesta. Due altri cataloghi sono disponibili, il primo dando le caratteristiche essenziali dei tubi a raggi catodici per applicazioni radar e strumentali ed il secondo le caratteristiche dei componenti a microonde.

La M-O Valve Company Limited, miembro del Grupo de Compañías GEC fabrica una extensa gama de tubos electrónicos y dispositivos de rayos catódicos para usos industriales, profesionales y militares. Este catálogo presenta un resumen de las características de valvulas industriales y de emisión; datos técnicos completos pueden obtenerse a requerimiento. Hay disponibles otros dos catálogos que resumen la gama de tubos de microondas y tubos de rayos catódicos para radar e instrumentos de medida.

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transmitting tubes

P _a (max) W	Type	CV reference	U.S. reference	Description	Output at full ratings		Max freq. at reduced ratings MHz	V _a (max) V	μ _{g1-g2}	g _m mA/V	V _h V	I _h A	Base
					W	MHz							
2.5	A2521	CV2453 CV8064	6CR4	Grounded grid triode	3.0	350	1250	250	60	15	6.3	0.3	B9A
10	DET22 Q/DED22*	CV273 —	—	Conduction cooled disc-seal triode	4.0	1000	3000	350	30	6.0	6.3	0.4	Coax.
10	DET29 DET29M	CV2397 CV5400	—	Conduction cooled disc-seal triode	1.5	4000	5000	450	60	24	6.3	0.5	Coax.
2 × 7.5	TT15	CV415	—	V.H.F. double beam tetrode	25	160	250	400	5.5	3.9	6.3	1.6	B9G
2 × 8	CV4046	CV4046	—	U.H.F. special quality double beam tetrode	25	160	250	400	5.5	3.9	6.3	1.6	B9G
20	DET24 Q/DET24*	CV397 —	—	Conduction cooled disc-seal triode	10	1000	2000	400	28	12	6.3	1.0	Coax.

*Q/DET22 and Q/DET24 – For use under conditions of shock and vibration.

The DET22 series of disc seal triodes consists of a range of mechanically identical tubes with electrical characteristics selected into various bands.

The DET22 (CV273) is the basic type and has the widest characteristic spread, while the DET22D, E, G, R and S have more tightly controlled characteristics. All the types give similar performance, but one or other of the selections may be preferred when the range of circuit adjustment is limited.

Details of other DET22 variants available on request.

Type	at V _a = 250V			C _{a-g} (pF) (measured on a cold unscreened) tube
	@ I _a = 40mA	@ I _a = 20mA		
	-V _g (V)	-V _g (V)	g _m (mA/V)	
DET22	—	5 ± 4	6 ± 3	1.05 ± 0.35
DET22D	5.5 ± 2.5	8 ± 2	6 ± 2	1.05 ± 0.35
DET22E	2 ± 1	6 ± 1	6 ± 2	1.05 ± 0.35
DET22G	—	5.5 ± 3.5	6.3 ± 1.7	1.13 ± 0.07
DET22R	—	6.7 ± 2.2	6.3 ± 1.7	1.1 ± 0.1
DET22S	—	6.7 ± 2.2	6.3 ± 1.7	0.95 ± 0.25
QDET22	—	5 ± 4	6 ± 3	1.05 ± 0.35

transmitting tubes

P _a (max) W	Type	CV reference	U.S. reference	Description	Output at full ratings		Max freq. at reduced ratings MHz	V _a (max) V	μ _{g1-g2}	g _m mA/V	V _h V	I _h A	Base
					W	MHz							
37.5	TT21	CV8286	7623	R.F. beam tetrode	174	30	60	1250	8.0	11	6.3	1.6	B8-O
37.5	TT22	—	7624	R.F. beam tetrode	174	30	60	1250	8.0	11	12.6	0.8	B8-O
100	TT100	—	—	Forced air cooled R.F. beam tetrode	200	30	100	1250	5.5	26	6.3 12.6	3.6 1.8	B12F
100	TT101	—	—	Forced air cooled R.F. beam tetrode	200	30	100	1250	5.5	26	12.6 25.2	1.8 0.9	B12F
250	4CX250B	CV6137 CV6174 CV8973	4CX250B	Forced air cooled U.H.F. tetrode	400	175	500	2000	5.0	12	6.0	2.6	B8F
250	CCS1	—	—	Conduction cooled U.H.F. tetrode	400	175	500	2000	5.0	12	6.0	2.6	B8F
250	CCS2	—	—	Conduction cooled U.H.F. tetrode	400	175	500	2000	5.0	12	6.0	2.6	B8F
380	DET40	—	—	Convection cooled triode	1230	150	—	4000	28	8.0	5.0	15	B5-F
400	ACT25	CV436	—	Forced air cooled disc-seal triode	256	500	1000	1000	75	35	13.5	2.8	Coax.
450	TT26	—	—	V.H.F. tetrode	1160	120	—	4000	5.2	4.5	5.0	15	B5F
1000	DET41	—	—	Convection cooled triode	3240	60	—	6000	20	8.5	8.5	26	Special 4 pin
1500	ACT27	—	—	Forced-air cooled triode	1250	160	500	1500	50	40	15	6.7	Coax.
2000	DET42	—	—	Convection cooled triode	7000	50	—	6000	20	12	7.5	50	Special 4 pin
3000	ACS4	CV5219 CV10369	6076	Forced-air cooled V.H.F. tetrode	4100	75	220	5000	3.5	19	6.3	30.5	Special

pulse tubes

Many tubes intended primarily for c.w. can be used under pulse conditions; ratings depend on operating conditions

P_a W	Type	CV reference	Description	V_a (pk) kV	V_a kV	V_{g2} kV	I_a (pulse) A	f (max) MHz	μ or μ_{g1-g2}	V_h V	I_h A	Base
7.5	A3065	CV6141	Rugged pulse modulator tetrode	4.0	4.0	0.6	4.0	—	15	1.1	10.3	Flying lead
12	A2226	CV2231	Modulator pentode	10	6.0	0.6	3.0	—	8.5	6.3	1.2	B9A
12	A3042	—	Modulator pentode	5.0	3.0	0.6	4.0	—	8.5	6.3	1.2	B9A
15	A2426	CV4082 CV8978	Modulator beam tetrode	8.0	6.0	0.8	7.5	—	7.5	6.3	1.3	B8-O
37.5	TT21	CV8286	Modulator beam tetrode	3.5	3.5	0.6	7.5	30	8.0	6.3	1.6	B8-O
37.5	TT22	—	Modulator beam tetrode	3.5	3.5	0.6	7.5	30	8.0	12.6	0.8	B8-O
1500	ACT28	CV2163	Oscillator triode	22	11*	—	50	600	45	16	7.3	Coax.
1500	ACT28A	CV5326	Oscillator triode	26	13*	—	50	600	45	16	7.3	Coax.
1200	EHT7	—	Modulator triode	100	100†	—	5.0	—	200	10	20	Flying lead
—	A2900	CV6091	Double triode	1.0	0.5	—	—	—	62	6.3 12.6	0.4 0.2	B9A

* Pulse only

† Oil immersed

audio tubes

P _a (max) W	Type	CV reference	U.S. reference	Description	V _a (max) kV	μ (triode)	Power output (W)					V _h V	I _h A	Base
							A	AB ₁	AB ₁ *	AB ₂	B			
9.0	N78	CV3711	—	Pentode	0.35	24	4.0	12.6	—	—	—	6.3	0.64	B7G
30	KT66	CV1075	—	Beam tetrode	0.5	9.5	—	30	50	—	—	6.3	1.3	B8-O
42	KT88	CV5220	6550	Beam tetrode	0.8	8.0	—	50	100	—	—	6.3	1.6	B8-O
37.5	TT21	CV8286	7623	Beam tetrode	1.25	8.0	—	50	140	—	—	6.3	1.6	B8-O †
37.5	TT22	—	7624	Beam tetrode	1.25	8.0	—	50	140	—	—	12.6	0.8	B8-O †
40	DA41	CV1076	TZ40	Triode	1.0	62	—	—	—	175	—	7.5	3.1	UX †
40	DA42	CV2394	—	Triode	1.25	72	—	—	—	200	—	7.5	1.2	UX4 †
100	DA100 §	CV1219	—	Triode	1.25	5.5	—	—	175	300	—	6.0	2.7	L4
100	TT100	—	—	Beam tetrode	1.25	5.5	—	—	400	400	—	12.6 6.3	1.8 3.6	B12F
100	TT101	—	—	Beam tetrode	1.25	5.5	—	—	400	400	—	12.6 25.2	1.8 0.9	B12F
275	V1505	—	—	Triode	3.0	16	—	—	650	1100	—	14	6.5	Special
380	DET40	—	—	Triode	4.0	28	—	—	—	—	1800	5.0	15	B5F
1000	DET41	—	—	Triode	6.0	20	—	—	—	—	5240	8.5	26	Special 4 pin
2000	DET42	—	—	Triode	6.0	20	—	—	—	—	9700	75	50	Special 4 pin

§A pair of matched tubes with identical serial numbers can be supplied as the DA100B

†Anode top cap

A = Single tube, class A
 AB₁ = Push-pull, class AB₁, cathode bias
 AB₁* = Push-pull, class AB₁, fixed bias
 AB₂ = Push-pull, class AB₂
 B = Push-pull, class B

rectifiers

VACUUM

PIV (max) kV	Type	CV reference	Description	$V_{a(rms)}$ (max) V	I_{out} (max) mA	$i_k(pk)$ each anode (max) mA	V_h V	I_h A	Base
1.375	CV4005	CV4005	Special quality bi-phase half wave	450	75	230	6.3	0.6	B7G
7.1	U19	—	Half wave	2500	250	1500	4.0	3.3	B4
15	CV4071	CV4071	Special quality high voltage half wave	6000	50	300	4.0	1.5	B8-O
15	Q/U37	—	E.H.T., half wave	6300	2.0	12	1.4	0.15	Leads
17.5	Q/U452	CV8862	E.H.T., half wave	6300	0.5	5.0	2.0	0.8	Leads
17.5	Q/U456	CV4117	E.H.T., half wave	5300	0.5	5.0	6.3	0.225	Leads
18	A2563	—	E.H.T., half wave	—	0.5	4.0	6.3	0.12	Leads
35	U41	CV2115	E.H.T., half wave	12400	2.0	12.5	1.25	0.2	B80

rectifiers

MERCURY VAPOUR

PIV (max) kV	Type	CV reference	I_{out}^* (max) A	$i_k(pk)$ (max) A	Full load operation 3-phase full wave		V_h V	I_h A	Base
					V_{out} kV	I_{out} A			
5.2	GU50	CV1072	0.25	1.0	4.5	0.75	4.0	3.0	B4
7.0	GU51	—	0.25	1.0	6.0	0.75	4.0	3.0	B4
10	GU12	CV32	0.25	3.0	9.5	0.75	2.5	5.0	4 pin UX
10	GU12A	—	0.25	3.0	9.5	0.75	2.5	5.0	ES
13.5	GU25	—	1.75	7.0	12.8	4.5	$5 \pm 5\%$	7.0	B4F

XENON FILLED

5.2	GXU50	CV8774	0.25	1.0	4.5	0.75	4.0	3.0	B4
10	GXU1	CV1835	0.25	1.0	9.5	0.75	2.5	5.0	4 pin UX
10	GXU5	—	3.0†	18	9.0	9.0	2.5	30	Special 2-pin
13	GXU2	CV2518 CV10661	1.25	5.0	12	3.75	5.0	7.1	B4F
13	GXU3	CV2399 CV8062	1.25	6.0	12	3.75	4.0	11	GES
13	GXU4	CV9006	1.25	5.0	12	3.75	4.0	7.0	GES
15	GXU6	CV5668	3.0	12	14	9.0	2.5	30	Special 2-pin

*Maximum averaging time 15 seconds

†3A at 10kV, 4A at 7kV

triggered inverse diodes

PIV (max) kV	Type	CV reference	Description	I_a (max) mA	$i_a(pk)$ (max) A	V_h V	I_h A	Base
25	GHU4	CV5405	Hydrogen filled	1000	250	2.5	45	Flying Lead
35	GHU3	—	Deuterium filled	2000	500	2.5	45	Special

thyratrons

INVERTER APPLICATIONS

Pout/pair kW	Type	$V_a(pk)$ kV	I_a mean A	$i_a(pk)$ (repetitive) A	f kHz	$\frac{di_a}{dt}$ A/ μ s	$\frac{dV_a}{dt}$ kV/ μ s	$-V_g$ V	Replenisher		V_h V	I_h A
									V_r V	I_r A		
320	GHT11	35	20	40	5	1000	1.5	100 to 120	$6.3 \pm 7.5\%$	5	$6.3 \pm 7.5\%$	36
1000	GHT12	35	60	120	6	3000	2	100 to 140	$6.3 \pm 7.5\%$	8	$6.3 \pm 7.5\%$	95

thyratrons

LOW POWER

V_a (max) V	Type	CV reference	$i_a(pk)$ (max) A	$I_a(av)$ (max) A	V_h V	I_h A	Base
500	GT1C	CV1128	1.0	0.3	4.0	1.35	B5

thyratrons

HIGH POWER

V _{a(pk)} (max) kV	Type	CV reference	i _{a(pk)} (max) A	I _{a(av)} (max) A	Neg. bias V	$\frac{di_a}{dt}$ A/μs	P _b factor	Jitter (max) μs	Replenisher †		V _h V	I _h A
									V _r V	I _r A		
18	GHT5	CV6118	700	1.25	100	5000	10 × 10 ⁹	0.03	5.0	4.2	2.5	40
25	5948/CV3518	CV3518	1000	1.0	0	5000	9 × 10 ⁹	0.01	5.0	4.3	6.3	30
25	KU54/CV3875 §	CV3875	1000	1.0	0	5000	9 × 10 ⁹	0.01	5.0	4.3	6.3	30
25	GHT4	CV6026	2000	3.0	100	7500	20 × 10 ⁹	0.006	5.0	4.3	7.0 to 12	31 at 12V
20	GHT7	—	500	0.60	0	2000	7 × 10 ⁹	0.005	6.3	1.5	6.3	20
35	GHT8	—	2000	5.0	50—120	7500	40 × 10 ⁹	0.005	6.3	5.0	6.3	36
35	GHT9	—	5000	15	50—120	10 000	100 × 10 ⁹	0.005	6.3	8.0	6.3	90
70	GHT10	—	2500	2.5	50—120	7500	160 × 10 ⁹	0.005	6.3	5.0	6.3	36
30	GHT13	—	2500	3.0	50—120	7500	30 × 10 ⁹	0.010	6.3	2.5	6.3	40
15	GHT14*	—	200	0.35	50—500	16 000	50 × 10 ⁹	0.001	6.3	1.5	6.3	7.0

§ The KU54/CV3875 is an uncapped version of the 5948/CV3518

* The GHT14 is capable of continuous operation at frequencies up to 150kHz. Negative bias values of up to 500V are required for high frequency operation.

† The replenisher, which is controlled by a barretter and thermistor, gives a sensibly constant gas pressure with wide variations of supply voltage and ambient temperature

surge protection devices

V_a kV	Type	I_a (pk) A	Trigger voltage V	Anode/cathode breakdown time μ s	Total discharge per operation Coulombs	Trigger duration μ s
6.0	SD6000	2000	3500	0.5	0.5	1.0
15	SD15000	2000	3500	1.5	5.0	1.0

instrument tubes

NOISE DIODES

I_a (max) mA	Type	CV reference	P_a (max) W	Max. frequency MHz	V_a (max) V	V_h (max) V	I_h A	Base
20	A2087	CV2171 CV8733	2.0	220	200	4.3	0.6	B7G
200	CV2341	CV2341	40 <i>f</i>	2500	400	4.7	3.8	Coaxial 70 Ω
45	CV2398	CV2398	3.5	500	200	6.0	1.15	B9A/F

f Forced air cooled

stabilizer tubes

SERIES

I_k (max) mA	Type	CV reference	Description	V_a (max) V	V_{g2} (max) V	P_a (max) W	P_{g2} (max) W	g_m mA/V	r_a Ω	V_h V	I_h A	Base
80	A2134	CV2179	Low impedance pentode	500	300	10	3.0	12	835	6.3	0.64	B7G
80	CV4062 A3283	CV4062 —	Special quality low impedance pentode	300	300	9.0	3.0	12	835	{ 6.3 13 }	{ 0.64 0.3 }	B7G
80	CV4065	CV4065	Special quality low impedance pentode	300	300	9.0	3.0	12	835	6.3	0.64	B7G/F
120	A2293	CV4079 CV8089	Low impedance triode	500	—	15	—	12	375	6.3	0.95	B9A
120	CV4079	CV4079	Special quality low impedance triode	500	—	15	—	12	375	6.3	0.95	B9A
120	CV4038	CV4038	Special quality low impedance triode	500	—	15	—	12	375	6.3	0.95	B9A-F
200	KT66	CV1075	Beam tetrode	550	550	30	4.5	7.3	1300	6.3	1.3	B8-O
230	TT21	CV8286	Tetrode	1250	600	37.5	6.0	11	670	6.3	1.6	B8-O
230	TT22	—	Tetrode	1250	600	37.5	6.0	11	670	12.6	0.8	B8-O
230	KT88	CV5220	Beam tetrode	800	600	42	8.0	12	670	6.3	1.6	B8-O
2 × 125	6080	CV2984 CV10332	Low impedance double triode	250	—	2 × 13	—	2 × 7.0	285 + 285	6.3	2.5	B8-O
2 × 125	6080WA	CV5008	Special quality low impedance double triode	250	—	2 × 13	—	2 × 7.0	285 + 285	6.3	2.5	B8-O
2 × 125	6AS7G	CV2523 CV8166	Low impedance double triode	250	—	2 × 13	—	2 × 7.0	285	6.3	2.5	B8-O
300	12E1	CV345 CV8025	Beam tetrode	800	300	35	5.0	13	425	6.3	1.6	B8-O
600	TT100	—	Beam tetrode	1250	300	100	12	26	210	{ 6.3 12.6 }	{ 3.6 1.8 }	B12F
600	TT101	—	Beam tetrode	1250	300	100	12	26	210	{ 12.6 25.2 }	{ 1.8 0.9 }	B12F
1500	EHT7	—	High voltage triode	100 000	—	1200	—	8.0	3850	10	20	Flying lead
1500	ACM3	—	Forced air cooled triode	2000	—	2000	—	27	520	6.0	17	—

For pentodes and tetrodes, g_m and r_a are quoted triode-connected

stabilizer tubes

SHUNT

V_a (max) kV	Type	CV reference	Description	I_a (max) mA	P_a (max) W	g_m (at $I_a = 1 \text{ mA}$) mA/V	V_h V	I_h A	Base
1.25	TT21	CV8286	Tetrode	230	37.5	—	6.3	1.6	B8-O
1.25	TT22	—	Tetrode	230	37.5	—	12.6	0.8	B8-O
3.0	A3042	—	Pentode	120	12	1.0	6.3	1.2	B9A
5.0	A2792	CV6097	Triode	10	6.0	2.5	6.3	0.3	B9A
6.0	A2226	CV2231	Pentode	120	12	1.0	6.3	1.2	B9A
6.0	A2426	CV4082 CV8978	Tetrode	120	15	1.0	6.3	1.3	B8-O

corona stabilizers

Stabilised output voltage V	Type	CV reference	Operating current		Continuous current (max) μA	Typical incremental impedance k Ω	Terminals
			Min μA	Max μA			
350	SC1/350	CV2456	2.0	425	325	17.5	
400	SC1/400	CV2457	2.0	450	350	20	
500	SC1/500	—	8.0	475	375	25	
600	SC1/600	CV2458	8.0	500	400	30	Top cap CT1
800	SC1/800	CV2459	22	575	475	40	
1000	SC1/1000	CV2460	28	650	550	50	
1200	SC1/1200	CV2461	32	725	625	60	Base B7G
1400	SC1/1400	CV2462	32	800	700	70	
1600	SC1/1600	CV6065	32	850	750	80	
1800	SC1/1800	CV6066	32	900	800	90	
2000	SC1/2000	CV6067	32	950	850	100	
2500	SC2/2500	—	25	1500	1000	210	
3000	SC2/3000	CV5844	25	1750	1000	250	Top cap CT1
3500	SC2/3500	—	25	1750	1000	280	Base BG9
4000	SC2/4000	—	25	1750	1000	320	

Details of other voltages on application

corona stabilizers

Stabilised output voltage V	Type	CV reference	Operating current		Continuous current (max) μA	Typical incremental impedance kΩ	Terminals
			minimum μA	maximum μA			
350	SC3/350	—	2.0	250	100	28	Wire ended
400	SC3/400	—	2.0	275	100	32	
600	SC3/600	—	6.0	300	100	48	
800	SC3/800	—	14	350	100	64	
1000	SC3/1000	—	18	400	125	80	
1200	SC3/1200	—	22	450	125	96	
1400	SC3/1400	—	22	500	125	112	
1600	SC3/1600	—	22	550	150	128	
1800	SC3/1800	—	22	575	150	144	
2000	SC3/2000	—	22	600	150	160	
5000	SC5/5000*	—	50	2000	1000	300	CT1 both ends
6000	SC5/6000*	CV8530	50	2000	1000	375	
6800	SC5/6800*	—	50	2000	1000	450	

Details of other voltages on application

*A special quality version of the SC5, for use under conditions of shock and vibration, is available as the QSC5 (CV8960)

corona stabilizers

METAL CERAMIC TYPES

Stabilised output voltage V	Type	CV reference	Operating current		Continuous current (max) μA	Typical incremental impedance k Ω	Temperature coefficient %/°C
			minimum μA	maximum μA			
5000	SC6/5000	—	25	2000	1000	200	0.007
7000	SC6/7000	—	25	2000	1000	250	0.007
10 000	SC6/10 000	—	25	2000	1000	500	0.005
14 000	SC6/14 000	—	25	2000	1000	700	0.005
14 000	SC7/14 000	—	25	1000	1000	1100	0.005
17 000	SC8/17 000	—	50	2000	1000	1500	0.005
20 000	SC8/20 000	—	50	2000	1000	1500	0.005
25 000	SC8/25 000	—	50	2000	1000	2000	0.005
28 000	SC8/28 000	—	50	2000	1000	—	0.005
350 to 2000	SC9 Series						

A series of corona stabilisers in small metal-ceramic cases, of identical characteristics to SC1 glass series and preferred to the latter for use under conditions of high shock and vibration.

Terminals : Anode – BS448 CT2 Cathode – Body

Standard voltage steps only are listed. Other voltages can be made available in the following ranges : **SC6** 2-9.9kV **SC7** 10-17.4kV **SC8** 17.5-28kV.

SC6 between 10 and 14.9kV is available but is only suitable for use in an oil bath.

An encapsulated version of SC7, ref. SC7/E is available for use under conditions of high humidity.

low noise tubes

Noise factor		Type	CV reference	U.S. reference	Description	V _a (max) V	p _a (max) W	V _a V	I _a mA	μ	g _m mA/V	V _h V	I _h A	Base
dB	at MHz													
1.9	45	A1714	CV408	—	V.H.F. triode	250	2.5	150	10	45	8.5	6.3	0.49	B7G
1.3	48	A2599	CV5242	—	V.H.F. triode	250	2.5	130	16	60	15	6.3	0.3	B9A
1.4	48	A2913	CV5413	—	V.H.F. triode	200	2.5	180	16	52	14	6.3	0.37	B7G
1.4	48	A2975	CV10813	—	V.H.F. triode	200	2.5	180	16	52	14	6.3	0.37	B7G
2.0	48	5842	CV3789 CV8198	5842	V.H.F. triode	250	4.0	150	25	43	25	6.3	0.3	B9A
9.5	900	A2521	CV8064	6CR4	U.H.F. triode	250	2.5	130	16	60	15	6.3	0.3	B9A
9.5	900	CV2453	CV2453	—	U.H.F. triode	250	2.5	130	16	60	15	6.3	0.37	B9A
8.0	400	DET23	CV354	—	Coaxial U.H.F. triode	350	10	250	10	70	6.5	6.3	0.4	Coaxial
8.5 12	900 2300	DET29 DET29M	CV2397 CV5400	—	Coaxial U.H.F. triode	450	10	95	10	55	16	6.3	0.5	Coaxial
2.0† 2.6§	48 48	D3a	CV10804	7721	V.H.F. tetrode	220	4.0	180	22	95†	35	6.3	0.32	B9A

†μ_{g1-g2}

‡As triode

§As tetrode

wideband amplifier tubes

p _a (max) W	V _a (max) V	Type	CV reference	U.S. reference	Description	V _{g2} (max) V	P _{g2} (max) W	I _a mA	g _m mA/V	Hot at 45 MHz		Cold			V _h V	I _h A	Base
										r _{in}	c _{in}	C _{g1} — all less a	C _a — all less g1	C _a —g1			
										k Ω	pF	pF					
4.0	220	E280F	—	7722	Pentode	180	1.1	20	26	1.4*	15.5	9.3	2.6	0.035	6.3	0.315	B9A
4.0	250	5842	CV3789 CV8198	5842	Triode	—	—	25	25	—	—	6.5	0.42	1.8	6.3	0.3	B9A
4.0	220	D3a	—	—	Tetrode	180	0.9	22	35	1.0	17	10	2.0	0.035	6.3	0.32	B9A
4.2	200	E282F	—	—	Pentode	150	1.4	35	26	—	16	10	2.6	0.05	6.3	0.35	B9A
5.0	300	Z759	CV5060 CV8082	—	Pentode	250	1.75	20	15	5.0	20	13	3.0	0.012	6.3	0.6	B9A
10	350	DET23	CV354	—	Disc seal triode	—	—	10	6.5	—	—	2.1	0.01	1.0	6.3	0.4	Special
10	450	DET29 DET29M	CV2397 CV5400	—	Disc seal triode	—	—	40	24	—	—	3.4	0.025	1.2	6.3	0.5	Special
22	600	KT67	CV437	—	Beam tetrode	300	3.0	80	13	5.0	—	17.5	9.0	0.08	6.3	1.5	B9G
37.5	1250	TT21	CV8282	7623	Beam tetrode	600	6.0	140	11	—	—	17	13.5	0.25	6.3	1.6	B8-O
37.5	1250	TT22	—	7624	Beam tetrode	600	6.0	140	11	—	—	17	13.5	0.25	12.6	0.8	B8-O
100	1250	TT100	—	—	Beam tetrode	300	10	400	26	—	—	37.5	21.5	0.4	6.3 12.6	3.6 1.8	B12F
100	1250	TT101	—	—	Beam tetrode	300	10	400	26	—	—	37.5	21.5	0.4	12.6 25.2	1.8 0.9	B12F
250	2000	4CX250B	CV6137 CV6174 CV8973	4CX250B	U.H.F. tetrode	400	12	200	12	—	—	15.7	4.5	0.06	6.0	2.6	B8F
250	2000	CCS1	—	—	Conduction cooled U.H.F. tetrodes	400	12	200	12	—	—	15.7	7.5‡	0.06	6.0	2.6	B8F
250	2000	CCS2	—	—	Conduction cooled U.H.F. tetrodes	400	12	200	12	—	—	15.7	7.0‡	0.06	6.0	2.6	B8F

*At 100 MHz

‡Including capacitance to heat sink.

switching devices

DRY REED CAPSULES

Switched wattage (max) W	Type	Contact	Switched voltage (max) V	Switched current (max) mA	Contact resistance (max) mΩ	Operate sensitivity (min) A turns	Operate time (max) ms	Length overall (max) mm	Diameter (max) mm
5.0	RC1	Single normally open	75	100	150	58	2.0	46.1	4
5.0	RCX	Single normally open	75	100	150	—	—	48	4
5.0	RCY	Single normally open	75	100	150	100	—	48	4
5.0	RCZ	Single normally open	75	100	150	70	—	48	4

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SOLENOIDS

Coil voltage nominal V	Type	Coil voltage (max) V	Coil temperature (max) °C	Resistance nominal Ω	Amp turns at nominal voltage	Voltage to operate RC1 (min) V
1.5	IS1.5V	3.0	70	28	91 ± 4.5	1.1
6.0	IS6V	12	70	500	84 ± 8.4	4.6
12	IS12V	24	70	1750	89 ± 8.9	8.7
24	IS24V	48	70	4050	113 ± 11.3	13.7

switching devices

FLAT 4 COIL ASSEMBLIES FOR DRY REED CAPSULES

PERFORMANCE WHEN FITTED WITH 2 OR 4 REEDS

Coil voltage nominal V	Type	Turns *	Nominal resistance at 20°C *	Minimum operate voltage at 55°C V	Minimum hold voltage at 55°C V	Maximum (non operate) voltage at 5°C V	Maximum release voltage at 5°C V	Limit circuit ampere turns			
								Operate	Non-operate	Hold	Release
6	210-0402-001	2440	156	5.2	3.5	0.96	0.4	65	18	44	7.5
12	210-0404-001	4750	635	10.8	7.3	2.0	0.84	65	18	44	7.5
24	210-0405-001	9140	2340	20.4	13.9	3.7	1.6	65	18	44	7.5
36	210-0406-001	14000	6000	34.3	23.8	6.5	2.6	65	18	44	7.5

The above type numbers are for coil assemblies without reeds

*Standard resistance tolerance $\pm 10\%$; turns are wound exact

Temperatures quoted above are local component ambient

Maximum power dissipation for continuous operation at 55°C is 0.8 watts

geiger-müller tubes

HALOGEN QUENCHED

Halogen quenched tubes have a lower operating voltage, greater signal output, and longer count life than organically quenched types. They differ in that the plateau characteristic depends upon the method of connection to the measuring apparatus, it being essential to avoid stray capacitance on the anode of the tube

Description	Type	CV reference	Threshold voltage (at 20°C) V	Operating voltage (at 20°C) V	Plateau slope (per volt) %	Plateau length V	Shielded background counts/min.	Operating temperature range °C	Useful life counts
Gamma radiation monitor tube for use as a probe in portable equipment. It is supplied in a waterproof and shockproof 'Neoprene' jacket	5GH	CV2247	315-375	355-415	0.07 (Av) 0.15 (Max)	150 (Av) 90 (Min)	—	-55 to +50	> 10 ⁹
A larger version of the 5GH, intended for use as a general purpose monitor tube in field and laboratory equipment. It is not supplied in a 'Neoprene' jacket	12GH	CV2287	300-370	340-410	0.05 (Av) 0.15 (Max)	120 (Av) 90 (Min)	25-50	-55 to +40	> 10 ⁹
End window counter tube for detection of beta and gamma radiation	25B2H	—	740-880	780-920	0.05 (Av)	150 (Min)	20	-55 to +40	> 10 ⁹

geiger-müller tubes

ORGANICALLY QUENCHED

GEC organically quenched tubes use ethyl formate as the quenching agent, which has many advantages over ethyl alcohol. Tubes using ethyl formate have better plateau characteristics, longer life, better temperature coefficient and a lower minimum operating temperature

Description	Type	CV reference	Plateau length (average) V	Plateau slope (average) %	Operating voltage limits V	Count life	Shielded back-ground counts/min.	Signal output V	Dead time μ s	Recovery time μ s	Window			
											Dia. mm	Thickness mm	Weight mg/cm ²	Material
For detection of medium energy β particles above 0.1 MeV	GM4	CV2138	250	0.05	1250—1450	6×10^8	7—15	$\frac{220}{100 + C}$	100	250	23	0.025	7.0	Alloy
For detection of low energy β particles	EHM2S	CV2139	300	0.04	1400—1600	6×10^8	5—13	$\frac{160}{100 + C}$	150	380	23	0.008	1.6—2.4	Mica
Wide angle tube for detection of low energy β particles from sources of low specific activity	2B2	—	300	0.04	1400—1600	4×10^8	25—45	$\frac{120}{100 + C}$	150	750	48	0.008	1.6—2.4	Mica
Wide angle tube for detection of medium energy β particles from sources of low specific activity	2B7	—	250	0.05	1400—1600	4×10^8	30—46	$\frac{340}{120 + C}$	220	700	48	0.025	7.0	Alloy
A low background count tube	GM4LB	—	200	0.08	1200—1400	—	down to 0.4	$\frac{280}{140 + C}$	—	—	23	0.025	7.0	Alloy

C is the total capacitance across the tube, in pF

The operating temperature range of all types is -20 to $+50^\circ\text{C}$

PLANCHETS can be supplied; 15mm, 25mm, flat or dished

special quality tubes

CV4000 SERIES

For applications where vibration or shock are encountered, these special quality tubes give greatly increased reliability. They are tested to the very stringent 'reliable' tube specifications of the British Services, which ensure that the product is of a uniform and high quality, with guaranteed minimum life expectancy.

Function	CV reference	Type	Basic Type			Description	V _a	PIV	V _{g2}	p _a	P _{g2}	g _m	μ	I _{out}	i _{k(pk)}	V _h	I _h	Base
			GEC	CV	U.S.A.		V	V	V	W	W	mA/V	mA	mA	V	mA		
Bi-phase half wave rectifier	4005	—	U78	493	6X4 6063	Double diode	—	1375	—	—	—	—	75	230	6.3	0.6	B7G	
Series stabiliser	4038	—	A2293	—	—	Triode	500	—	—	15	—	12	4.5	—	—	6.3	0.95	B9A/F
V.H.F. power amplifier	4046	—	TT15	415	—	Double beam tetrode	400	—	400	2 × 8	3.0	3.9	5.0	—	—	6.3	1.6	B7G
H.V. half-wave rectifier	4061	QU37	U37	2289	—	Diode	—	15000	—	—	—	—	2.0	12	1.4	0.5	F.L.	
Power amplifier/ series stabiliser	4062	—	A2134	2179	—	Pentode	300	—	300	9.0	3.0	9.5	—	—	—	6.3	0.64	B7G
Power amplifier/ series stabiliser	4065	—	A2134	2179	—	Pentode	300	—	300	9.0	3.0	9.5	—	—	—	6.3	0.64	B7G/F
H.V. half-wave rectifier	4071	—	—	404	—	Diode	—	15000	—	—	—	—	50	300	4.0	1.5	B8-O	
H.V. half-wave rectifier	4072	—	—	404	—	Diode	—	15000	—	—	—	—	50	300	4.0	1.5	B8-O/F	
Power amplifier/ series stabiliser	4079	A2293	—	—	—	Triode	500	—	—	15	—	12	4.5	—	—	6.3	0.95	B9A
Pulse modulator/ shunt stabiliser	4082	A2426	A2226	2231	—	Tetrode	6000	—	800	15	3.5	—	—	—	—	6.3	1.32	B8-O
Low level, low frequency amplifier	4085	—	Z729	8081	—	Pentode	300	—	250	1.0	0.2	2.0	38*	—	—	6.3	0.2	B9A
Low level, low frequency amplifier	4086	—	Z729	—	—	Pentode	300	—	250	1.0	0.2	2.0	38*	—	—	6.3	0.2	B9A/F

*μg1—g2

photocells

Operating voltage V	Type	CV reference	Description	Cathode	Dark current (max) μA	Sensitivity (min) $\mu\text{A/lumen}$	Gas amplification factor (max)	Base
80—110	CAG25	—	<i>G</i>	Sb	0.1	125	5.0	B4
80—110	CAG29	CV2270	<i>G</i>	Sb	0.1	100	6.0	B7G
—	CAV29	CV2132	<i>V</i>	Sb	0.05	30	—	B7G
100	CAV35	—	<i>V</i>	Sb	0.05	30	—	B4
80—110	CMG8	CV1432	<i>G</i>	Cs	0.1	75	10	B4
80—110	CMG22	CV1473	<i>G</i>	Cs	0.1	100	8.0	B4
80—110	CMG25	CV242	<i>G</i>	Cs	0.1	100	8.0	B4
80—110	CMG29	CV2133	<i>G</i>	Cs	0.1	75	8.0	B7G
80—110	CMG34X	CV405	<i>G</i>	Cs	0.1	75	8.0	B3A
—	CMV29	CV2134	<i>V</i>	Cs	0.05	15	—	B7G

G Gas-filled
V Vacuum
 Sb Antimony
 Cs Caesium

equivalents list

This booklet contains an Index of all M-OV Valves and Tubes for Industrial, Professional and Military uses, together with a guide to various valves and tubes for which M-OV types may be used as replacements.

Status Code

The following coding is used throughout the booklet and gives an indication of the availability of any particular type.

- P = Preferred Type – available ex stock, subject to prior sale.
- C = Current Type – normally available ex stock, subject to prior sale.
- M = Maintenance Type – for replacement purposes only.
- S = Manufactured subject to negotiation and available to special order only.
- O = Obsolescent – no longer manufactured by The M-O Valve Co Ltd. Limited stocks may still be available.

La présente brochure contient une Nomenclature de tous les Tubes et Lampes Electroniques M-OV à usage industriel, professionnel et militaire, ainsi qu'un guide des différents tubes et lampes que des modèles M-OV peuvent remplacer.

Codification

La codification suivante est utilisée tout au long de la nomenclature pour indiquer dans quelles conditions chaque type est disponible.

- P = Modèle recommandé – disponible jusqu'à épuisement du stock.
- C = Modèle courant – normalement disponible jusqu'à épuisement du stock.
- M = Modèle d'entretien – en remplacement seulement.
- S = Fabriqué après accord et disponible seulement sur commande spéciale.
- O = Modèle périmé – n'est plus fabriqué par M-O Valve Co Ltd. Peut exister encore en quantités limitées.

Der vorliegende Katalog enthält eine Aufstellung aller M-OV-Röhren für die Verwendung in der Industrie, in Instituten und im militärischen Bereich, sowie Hinweise auf verschiedene Röhrentypen, die durch M-OV-Röhren ersetzt werden können.

Kennzeichnung der Gängigkeit

Zur Kennzeichnung der Liefersituation ist jede in diesem Katalog aufgeführte Röhrentype mit einem der folgenden Kennbuchstaben versehen:

- P = vorzugsweise verwendete Type – lieferbar sofort ab Lager England zwischenverkauf vorbehalten.
- C = gängige Type – normalerweise lieferbar sofort ab Lager England zwischenverkauf vorbehalten.
- M = Wartungstypen – nur als Ersatzteil zu verwenden.
- S = nur nach Vereinbarung gefertigt – Lieferung nur auf Sonderbestellung.
- O = überholte Type – wird von The M-O Valve Co Ltd nicht mehr hergestellt. Begrenzte Mengen vielleicht noch lieferbar.

Il presente opuscolo contiene un indice di tutte le valvole e tubi elettronici M-OV per impieghi industriali, professionali e militari, unitamente ad una guida che identifica le diverse valvole e tubi elettronici per i quali i tipi M-OV possono essere usati in sostituzione.

Codice di disponibilità

Le seguenti lettere corrispondono al codice usato in questo opuscolo per indicare la disponibilità di qualsiasi tipo di valvola o tubo elettronico.

- P = Tipo preferito – disponibile fino a esaurimento dello stock.
- C = Tipo corrente – normalmente disponibile fino a esaurimento dello stock.
- M = Tipo manutenzione – soltanto per sostituzione.
- S = Costruzione da convenirsi e disponibile soltanto su specifica ordinazione.
- O = Tipo superato – non più costruito da The M-O Valve Co Ltd. Può essere ancora disponibile in quantitativi limitati.

En este folleto figura un índice de todas las válvulas y lámparas electrónicas M-OV para usos industriales, profesionales y militares, así como una guía de los tipos M-OV que se pueden utilizar como sustitutivos de diversas válvulas lámparas electrónicas.

Símbolos convencionales

En este folleto se han utilizado los siguientes símbolos convencionales que indican la disponibilidad de cualquier tipo determinado.

- P = Tipo preferente – plazo de entrega inmediato salvo venta.
- C = Tipo corriente – normalmente plazo de entrega inmediato salvo venta.
- M = Tipo reparaciones – sólo para fines de recambio.
- S = Fabricación condicionada a negociaciones previas y se sirve únicamente mediante pedido especial.
- O = Modelo antiguo – La 'The M-O Valve Co Ltd' ya no lo fabrica. Es posible que queden aún existencias limitadas.

M-OV REPLACEMENTS

TYPE NUMBER INDEX	GEC Type Number	CV Type Number	Status	Page No	TYPE NUMBER INDEX	GEC Type Number	CV Type Number	Status	Page No
A1714	A1714	408	M		CAR6	CAR6	—	O	
A1714S	A1714S	8030	M		CAT2	CAT2	1606	O	
A1820	A1820	—	O		CAT3	CAT3	—	O	
A1834	A1820	409	O		CAT6	CAT6	2871	M	
A1998	6AS7G	2523	C	13	CAT9	CAT9	2872	O	
A2087	A1998	—	O		CAT14	CAT14	—	O	
A2134	A2087	2171	M	12	CAT14C	CAT14C	—	O	
A2196S	A2134	8733	S		CAT17	CAT17	533	O	
A2223	A2196S	2179	C	13	CAT17C	CAT17C	—	O	
A2226	A2223	—	S		CAT20	CAT20	—	O	
A2244S	A2226	10706	O		CAT20C	CAT20C	—	O	
A2272	A2244S	2231	P	6, 14	CAT26	CAT26	—	O	
A2293	A2272	2204	S		CAT27	CAT27	—	O	
A2327S	A2293	2318	O		CAT28	CAT28	—	O	
A2426	A2327S	4079	C	13	CAT29	CAT29	—	O	
A2521	A2426	8089	S		CAT30	CAT30	—	O	
A2563	A2521	—	S		CAV25	CAV25	—	O	
A2599	A2563	4082	P	6, 14	CAV29	CAV29	2132	C	25
A2637	A2599	8978	S		CAV35	CAV35	—	C	25
A2674	A2637	2453	C	4, 18	CCS1	CCS1	—	P	5, 19
A2688	A2674	8064	C		CCS2	CCS2	—	P	5, 19
A2790	A2688	—	M	8	CCT6	CCT6	6016	S	
A2792	A2790	5242	C	18	CE1	CMG32	—	M	
A2900	A2792	—	O		CE25	CMG34X	405	C	25
A2913	A2900	—	S		CE25V	CMV33X	—	O	
A2975	A2913	4081	O		CG6	CMG25	242	C	25
A3012	A2975	—	S		CMG8	CMG8	1432	C	25
A3042	A3012	6097	P	14	CMG22 (90V)	CMG22 (90V)	2896	C	25
A3051	A3042	6091	P	6	CMG22 (80-110V)	CMG22 (80-110V)	—	C	
A3065	A3051	5413	C	18	CMG22 (160V)	CMG22 (160V)	1473	C	25
A3283	A3065	4120	C	18	CMG25	CMG25	—	C	
A3341	A3283	10813	S		CMG28	CMG25	242	C	25
A3343	A3341	—	C		CMG29	CMG28	—	O	
ACM1	A3343	—	P	6, 14	CMG32	CMG29	2133	C	25
ACM3	ACM1	6141	P	6	CMG33	CMG32	—	O	
ACPT8	ACM3	—	C	13	CMG33X	CMG33	—	O	
ACS4	ACPT8	10744	S		CMG34	CMG33X	1913	O	
ACT9	ACS4	118/	P		CMG34X	CMG34	—	C	25
ACT9B	ACT9	0243	O		CMV28	CMG34X	405	C	25
ACT14	ACT9B	—	O		CMV29	CMV28	—	O	
ACT22	ACT14	10361	M	13	CMV31	CMV29	2134	C	25
ACT24	ACT22	2818	S		CMV33	CMV29	8046	C	
ACT25	ACT24	5219	C	5	CMV33X	CMV31	—	O	
ACT27	ACT25	10369	S		CMV34	CMV33	—	O	
ACT28	ACT27	28	C		CMV34X	CMV33X	—	O	
ACT28A	ACT28	1994	C		CR1100	CMV34X	—	O	
ACT29	ACT28A	1431	S		CV19	ACS4	5219	C	5
AG866A	ACT29	257	O		CV28	EHT1	19	O	
AH201	ACT29	240	O		CV31	ACT9	28	C	
AN1	AG866A	436	C	5	CV32	U18/20	31	O	
ASG5121	AH201	—	P	5	CV32	GU12	32	C	9
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AX228	ASG5121	5326	P	6	CV138	Z77	138	C	
AX230	AX224	6057	M		CV140	D77	140	C	
AX907R	AX228	32	C	9	CV187	U19	187	C	8
BMV31	AX230	32	C	9	CV240	ACT24	240	O	
BRI52B	AX907R	1128	M	10	CV242	CMG25	242	C	25
BR1138	BMV31	797	C	9	CV257	ACT22	257	M	
BS100	BRI52B	1835	P	9	CV273	DET22	273	P	4
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BW153	BS100	2518	P	9	CV345	12E1	345	C	12
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CAM4	CAM2	—	O		CV409	A1820	409	O	
CAR2	CAM3	—	O		CV415	TT15	415	C	4
CAR4	CAM4	—	O		CV421	CAT20C	421	O	
	CAR2	—	O		CV436	ACT25	436	C	5
	CAR4	1602	O		CV437	KT67	437	M	19
					CV451	ET3	451	O	
					CV493	U78	493	M	
					CV524	TT12	524	O	
					CV533	CAT17	533	O	

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CV1111	U27	1111	O				8973	S	
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CV1178	DA30	1178	O				8166	S	
CV1219	DA100	1219	P	7	CV2738	GU50	1072	C	9
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CV1288	DET12	1288	O				1626	S	
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CV8082	Z759	5060	M	19	EC8010	EC8010	—	C	
CV8089	A2293	4079	C	13	ECC88	ECC88	5358	C	
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GU8	GU8	1628	O		R51AV	CMV33X	—	O	
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SC8/30000	SC8/30000	—	P	17	VT46A	GU12	32	C	9
SC8/35000	SC8/35000	—	P	17	VX580A	GXU1	1835	P	9
SC8/40000	SC8/40000	—	P	17	V2M70	U78	493	M	
SC8/45000	SC8/45000	—	P	17	V503	DA30	563	O	
SC8/50000	SC8/50000	—	P	17	V1103	TT24	2798	C	4
SC9/350	SC9/350	—	P	17	V1505	V1505	—	C	7
SC9/400	SC9/400	—	P	17	WL735	CMG32	—	O	
SC9/500	SC9/500	—	P	17	WL866A	GU12	32	C	9
SC9/600	SC9/600	—	P	17	WT210/0001	2D21	797	C	
SC9/800	SC9/800	—	P	17	WT210/0008	GU12	32	C	9
SC9/1000	SC9/1000	—	S	17	WT262	GU12	32	C	9
SC9/1200	SC9/1200	—	S	17	WT606	2D21	797	C	
SC9/1400	SC9/1400	—	S	17	XA1	XA1	—	O	
SC9/1600	SC9/1600	—	S	17	Z77	Z77	138	C	
SC9/1800	SC9/1800	—	S	17	Z319	Z319	2276	O	
SC9/2000	SC9/2000	—	S	17	Z359	Z359	—	O	
SD6000	SD6000	—	P	12	Z729	EF86/Z729	2901	C	
SD15000	SD15000	—	P	12	Z759	Z759	5060	M	19
SL2	SL2	—	S				8082	S	
SP6	Z77	138	C		Z759S	Z759S	5325	M	
ST11	ST11	—	O		1B3GT	U41	2115	M	8
TD03/5	DET23	354	P	18, 19	2B2	2B2	—	P	23
		8026	S		2B7	2B7	—	P	23
TD03/10	DET22	273	P	4	2D21	2D21	797	C	
		5956	P		2G402A	GXU1	1835	P	9
TD03/10D	DET22D	5962	P	4	2G472B	GXU2	2518	P	9
TD03/10E	DET22E	5458	P	4			10661	P	
TD03/10G	DET22G	—	S	4	2G473C	GXU3	2399	P	9
TD04/20	DET24	397	P	4			8062	S	
TD04/20A	Q/DET24	5759	S	4	2H28	GXU1	1835	P	9
		5747	S		2H66	GU12	32	C	9
		5754	S		2V400A	GU12	32	C	9
TH5021B	GU12	32	C	9	2XM600A	GU12	32	C	9
TH5221B	GXU1	1835	P	9	3B28	GXU1	1835	P	9
TT12	TT12	524	O		3GHR	3GHR	6133	O	
TT15	TT15	415	C	4	3GHRS	3GHRS	6134	O	
TT16D	TT16D	—	O		3J121E	ACT9	28	C	
TT21	TT21	8286	P	5, 6, 7, 13, 14, 19	4B32	GXU2	2518	P	9
TT22	TT22	—	P	5, 6, 7, 13, 14, 19	4CX250B	4CX250B	10661	P	5, 19
							6137	P	
TT23	TT23	2466	C				6174	P	
TT24	TT24	2798	C		4CX250K	4CX250K	8973	S	
TT26	TT26	—	C	5	4F15R	4CX250B	—	O	
TT100	TT100	—	P	5, 7, 13, 19			6137	P	5, 19
							6174	P	
TT101	TT101	—	P	5, 7, 13, 19	4GSM	CMG32	8973	S	
					4G280K	2D21	—	O	
TX12/12W	CAT6	2871	M		4H32	GXU2	797	C	
TY1-50	DET12	1288	O				2518	P	9
TZ40	DA41	1076	C	7	4H135M	4CX250B	10661	P	5, 19
U18/20	U18/20	31	O				6137	P	
U19	U19	187	C	8			6174	P	
U23	U19	187	C	8	4H160M	4CX250B	8973	S	
U27	U27	1111	O				6137	P	5, 19
U37	U37	2289	O				6174	P	
U41	U41	2115	M	8	4HC160M	4CX250B	8973	S	
U43	U43	—	O				6137	P	5, 19
U45	U45	—	O				6174	P	
U52	U52	575	O		4Q025	GU12A	8973	S	
U60	U60	4075	M		4X150A	4CX250B	—	S	9
U78	U78	493	M				6137	P	5, 19
UA025A	GXU1	1835	P	9			6174	P	
							8973	S	

M-OV REPLACEMENTS

TYPE NUMBER INDEX	GEC Type Number	CV Type Number	Status	Page No	TYPE NUMBER INDEX	GEC Type Number	CV Type Number	Status	Page No
4X250B	4CX250B	6137	P	5, 19	866	GU12	32	C	9
		6174	P		866A	GU12	32	C	9
		8973	S		868	CMG32	—	O	
5A160K	Z77	138	C		927	CMG34X	405	C	25
5A170K	E180F	3998	C		966	GU12	32	C	9
5A185K	D3a	10804	C	18	3530	CMG34X	405	C	25
5GH	5GH	2247	C	22	3554	CMG32	—	O	
5H160H	Z77	138	C		2861B	4CX250B	6137	P	5, 19
5R4GY	5R4GY	—	O				6174	P	
5U4G	U52	575	O				8973	S	
		1071			4017	GU12	32	C	9
5V3828	GXU1	1835	P	9	4212E	V1505	—	C	7
6AL5W	6AL5W	4007	C		4304CB	V1505	—	C	7
6AM6	Z77	138	C		5121	2D21	797	C	
6AS7G	6AS7G	2523	C	13	5221	GXU1	1835	P	9
		8166	S		5842	5842	3789	P	18
6CR4	A2521	2453	C	4, 18			8198	S	
		8064	C		5861	DET22G	—	S	4
6CT4	A2599	5242	C	18	5948	5948/ CV3518	3518	S	
6DJ8	ECC88	5358	C		6064	CV4014	4014	C	
6F12	Z77	138	C		6076/AX9907R	ACS4	5219	C	5
6F22	EF86/Z729	2901	C		6080	6080	2984	P	13
6X4W	6X4W	4005	C				10332	S	
8D3	Z77	138	C		6080WA	6080WA	5008	P	13
11C1	A2293	4079	C	13			8232	S	
		8089	S		6093	CV4005	4005	C	8, 24
11D12	6080	2984	P	13			8203	S	
		10332	S		6267	EF86/Z729	2901	C	7
11E13	TT24	2798	C	4	6360	TT24	2466	C	4
12E1	12E1	345	C	13	6550	KT88	5220	P	7, 13
		8025			6688	E180F	3998	C	
12E13	KT88	5220	P	7, 13	6922	E88CC	2492	C	
12GH	12GH	2287	C	22	6939	TT23	2466	C	
25B2H	25B2H	—	S	22			5473		
25B7H	25B7H	—	S		7034	4CX250B	6137	P	5, 19
44A160M	TT15	415	C				6174	P	
52CG	CMG22 (90V)	2896	C				8973	S	
55CG	CMG34X	405	C	25	7623	TT21	8286	P	5, 6, 7, 13, 14, 19
56CG	CNG32	—	O		7624	TT22	—	P	5, 6, 7, 13, 14, 19
90AG	CAG29	2270	C	25					
90AV	CAV29	2132	C	25	7721	D3a	10804	C	18
90CG	CMG29	2133	C	25	7722	E280F	10775	C	18
90CV	CMV29	2134	C	25	7788	E810F	5809	C	18
249A/B	GU12	32	C	9					
354PW/02	CMG33X	1913	O						
357B	GU12	32	C	9					
436A	A2674	—	S						

Please send me further information on the following products:—

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Name
(CAPITALS)

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Company

Address

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Gradiremmo ricevere ulteriori informazioni riguardanti i seguenti prodotti:—

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Nome
(STAMPATELLO)

Mansioni

Ditta

Indirizzo

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Nombre
(MAYUSCULAS)

Cargo

Compañía

Dirección

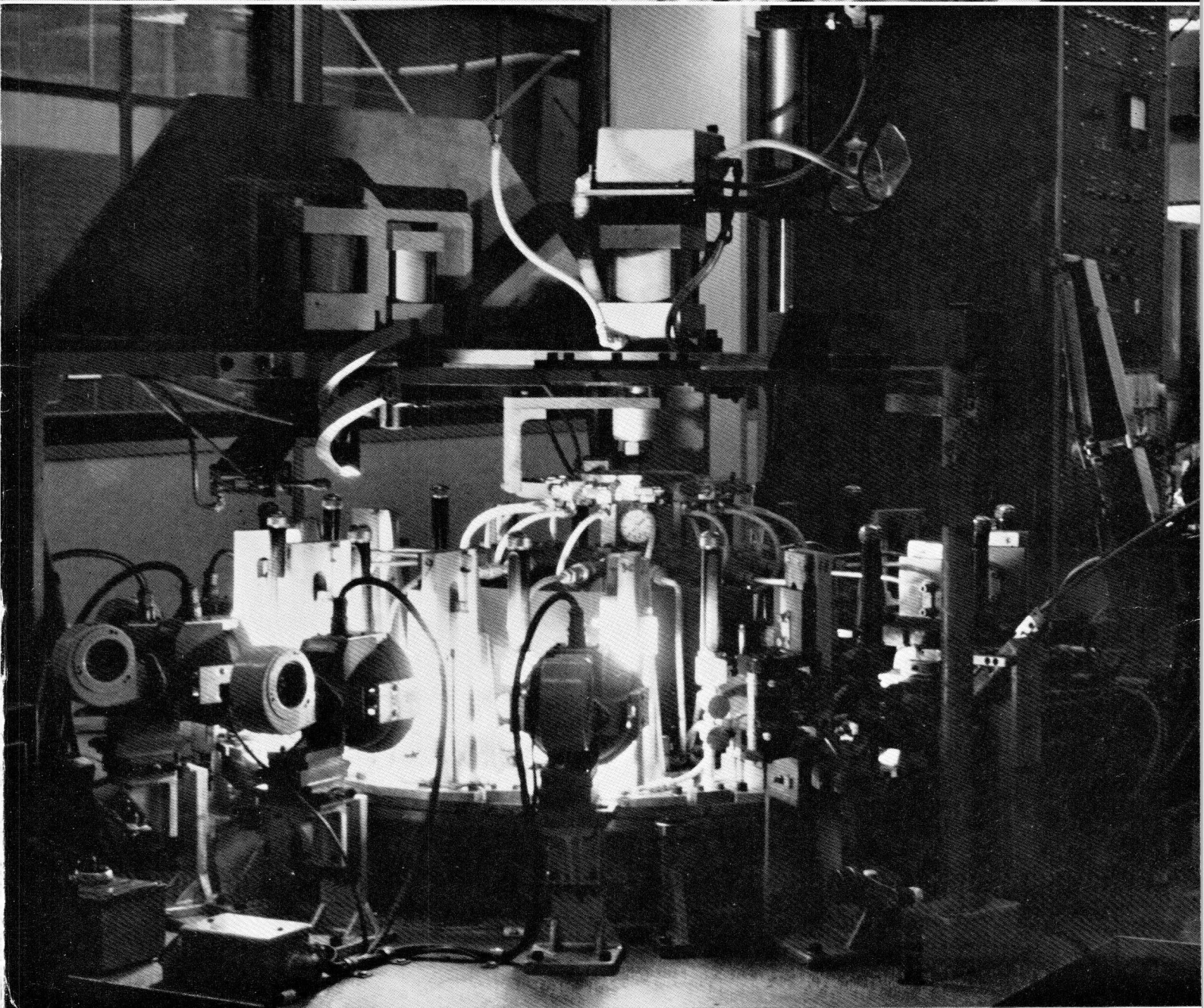
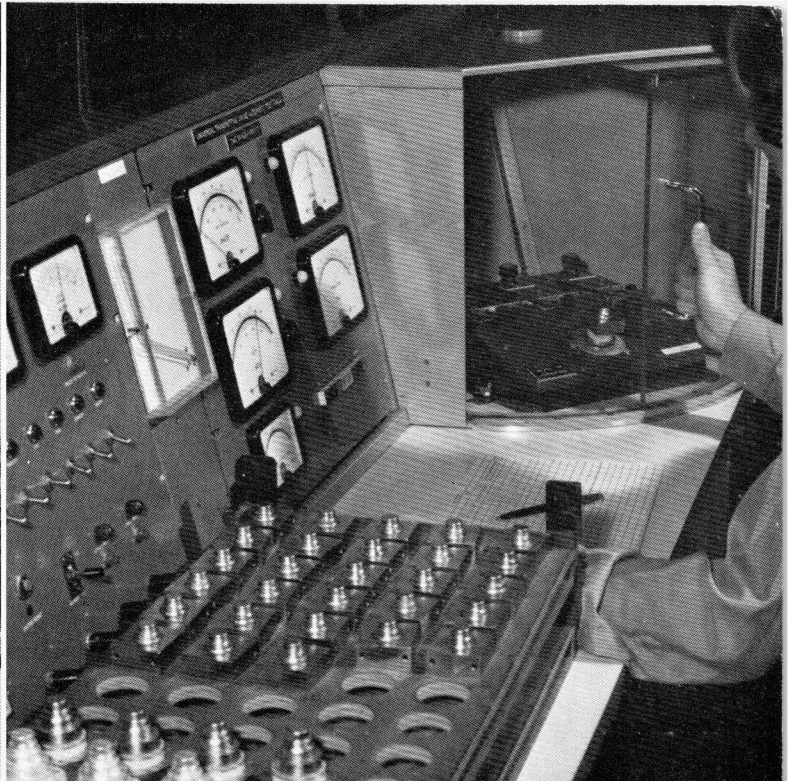
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*Top left : Adjusting Number 3 grid of transmitting pentode
Top right : Testing conduction cooled tetrodes
Bottom : Automatic production of dry reed capsules*

