

# INSTRUMENT CATHODE RAY TUBES

GEC  
1956

G.E.C. instrument tubes are supplied with a green B type screen as standard but, with the exception of the E4103 three additional types of screen are available, the characteristics of which are given in the table below. The E4103 is supplied only with the E or M alternative screens.

The type of screen is indicated by the second letter in the tube reference, and tubes should be ordered under the appropriate reference, e.g. E4205/B/7, E4504/M/16.

Screen :

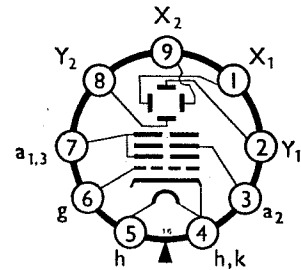
Type	Persistence*	Colour	Application
B	100 ms	Green	Visual
E	1 ms	Blue	Photographic
C	6 s	Yellow flash, yellow afterglow	Visual
M	20 s	Blue flash, yellow afterglow	Visual

p1  
p2  
p3  
p4  
p5  
p6  
p7  
p8  
p9  
p10

\* The persistence is defined as the time taken from the cessation of excitation for the brightness to decay from 1 f.l. to approximately 1% of that value.

E4103/B/4. 1½ in. Screen. £5.00

## Ratings and Characteristics



$V_h$	4	V
$I_h$	1 approx.	A
$V_{h-k}$	100 max.	V
$V_{a1,3}$	1 max.	kV
$V_{a1,3}$	600 min.	V
$V_{a2}$ focusing	$V_{a1,3} \times 0.15$ mean	V
$V_g$	-1 min.	V
$V_g$	-50 max.	V
$V_g$ for cut-off	$-V_{a1,3}/60$ mean	V
$I_b$	10 max.	$\mu A$
$I_k$	25 max.	$\mu A$
$S_x$	$100/V_{a1,3}$ mean	mm/V
$S_y$	$90/V_{a1,3}$ mean	mm/V
$R_{g-k}$	100 max.	k $\Omega$
$R_x$	5 max.	M $\Omega$
$R_y$	5 max.	M $\Omega$

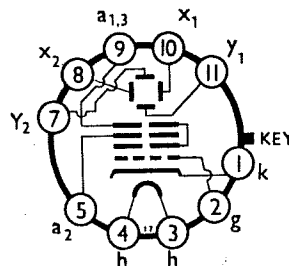
Base. Underview, British 9 pin.

### Dimensions

Max length : 165 mm.  
Max. dia. : 39 mm.  
Neck dia. : 39 mm.

E4205/B/7. 2½ in. Screen. £6.00 ECR30

## Ratings and Characteristics



$V_h$	4	V
$I_h$	1 approx.	A
$V_{h-k}$	100 max.	V
$V_{a1,3}$	1.5 max.	kV
$V_{a1,3}$	600 min.†	V
$V_{a2}$ focusing	$V_{a1,3} \times 0.15$ mean	V
$V_g$	-1 min.	V
$V_g$	-100 max.	V
$V_g$ for cut-off	$-V_{a1,3}/40$ mean	V
$I_b$	20 max.	$\mu A$

Base. Underview, B12B.

† E4205/C/7 : 1 kV min.

(E4205) contd

### Dimensions

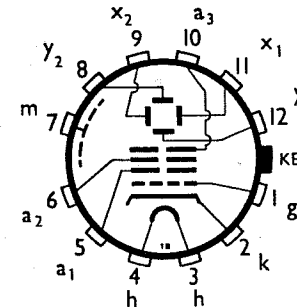
Max. length : 235 mm.  
Max. dia. : 70 mm.  
Neck dia. : 42 mm.

$I_k$	50 max.	$\mu A$
$S_x$	$170/V_{a1,3}$ mean	mm/V
$S_y$	$170/V_{a1,3}$ mean	mm/V
$R_{g-k}$	100 max.	k $\Omega$
$R_x$	5 max.	M $\Omega$
$R_y$	5 max.	M $\Omega$

E4412/B/9. 3½ in. Screen. £13.00

Null Control GEC  
ECR35/90 ECR4/901A

## Ratings and Characteristics



$V_h$	4	V
$I_h$	1 approx.	A
$V_{h-k}$	100 max.	V
$V_{a1}$	2.5 max.	kV
$V_{a2}$ focusing	$V_{a3} \times 0.175$ mean	V
$V_{a3}$	4 max.	kV
$V_{a3}$	1 min.	kV
$V_g$	-1 min.	V
$V_g$	-100 max.	V
$V_g$ for cut-off	$-V_{a1}/35$ mean	V
$I_b$	25 max.	$\mu A$
$I_k$	250 max.	$\mu A$
$S_x$	$350/V_{a3}$ mean	mm/V
$S_y$	$800/V_{a3}$ mean	mm/V
$R_{g-k}$	100 max.	k $\Omega$
$R_x$	5 max.	M $\Omega$
$R_y$	5 max.	M $\Omega$

Base. Underview, B12D.

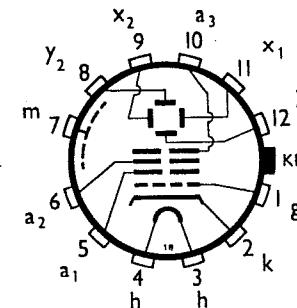
### Dimensions

Max. length : 340 mm.  
Max. dia. : 90 mm.  
Neck dia. : 64 mm.

E4504/B/16. 6 in. Screen. £16.00

ECR60 (VER517 comparable)  
VER97

## Ratings and Characteristics



$V_h$	4	V
$I_h$	1 approx.	A
$V_{h-k}$	100 max.	V
$V_{a1}$	2.5 max.	kV
$V_{a2}$ focusing	$V_{a3} \times 0.175$ mean	V
$V_{a3}$	5 max.	kV
$V_{a3}$	1 min.	kV
$V_g$	-1 min.	V
$V_g$	-100 max.	V
$V_g$ for cut-off	$-V_{a1}/35$ mean	V
$I_b$	25 max.	$\mu A$
$I_k$	250 max.	$\mu A$
$S_x$ V/cm	31 $650/V_{a3}$ mean	mm/V
$S_y$	18 $1100/V_{a3}$ mean	mm/V
$R_{g-k}$	100 max.	k $\Omega$
$R_x$	5 max.	M $\Omega$
$R_y$	5 max.	M $\Omega$

Base. Underview, B12D.

### Dimensions

Max. length : 431 mm.  
Max. dia. : 160 mm.  
Neck dia. : 72 mm.