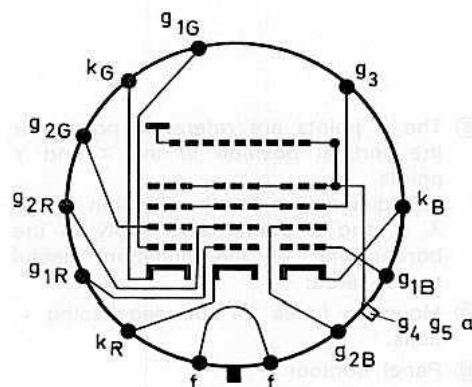


Colour Picture Tubes

A 66-120 X



ITT-Picture Tube A 66-120 X is a rectangular colour picture tube with 90° deflection angle and 36,5 mm neck diameter. The useful screen area of 2030 cm² (appr.) has nearly straight sides of 52 x 39 cm (appr.) with 3 x 4 aspect ratio. The filter-glass of the faceplate has a light transmission of 52 % (appr.).

The phosphor screen is composed of triangular dot groups — colour triplets — each consisting of a red-, green- and blue-emitting phosphor dot. The green- and blue-emitting phosphors are silver activated sulfide phosphors, the red emitting phosphor is composed of yttrium compounds activated with rare-earths.

The tube uses three electrostatically focused guns and operates on the shadow mask principle.

The gun axes are tilted slightly towards the tube axis to facilitate convergence to the shadow mask. Beam-convergence and deflection are provided magnetically.

Implosion protection by steel reinforcement. Admitted by Association of German Electrical Engineers, VDE.

1. Generalities

Bulb	All-Glass Type with Convex Rectangular Faceplate Filter-Glass	
Minimum Useful Screen Dimensions	Diagonal	618 mm
	Horizontal	518 mm
	Vertical	390 mm
	Aspect Ratio	3 x 4
Deflection Angles	Area (approx.)	2030 cm ²
	Diagonal	90°
	Horizontal	79°
	Vertical	62°
Neck Diameter	36,5 mm	
Weight	21 kg (appr.)	
Base	JEDEC B 12-244	
	14-20/1 DIN 44439 (Long Design)	
Implosion Protection	Steel-Jacket Including Tube Mount	

2. Typical Operating Conditions ①

U_f ②	6,3 V
I_f	(approx.) 0,9 A
U_{g4g5a}	25 kV
U_{g3}	4,2 ... 5,0 kV
U_{g2} cutoff ③ ④ at $(-U_{g1}) = 105$ V	210 ... 495 V
$(-U_{g1})$ cutoff ④ at $-U_{g2} = 300$ V	70 ... 140 V

3. Maximum Ratings ⑧

U_{g4g5a} max ⑥	27,5 kV
U_{g4g5a} min	20 kV
I_{g4g5a} max ⑤	1,0 mA
U_{g3} max	6,0 kV
U_{g2} p max	1,0 kV
$(-U_{g1})$ p max	400 V
$(-U_{g1})$ max	200 V
U_{g1} max	0 V
U_{g1} p max	2 V
$U_{-f/k}$ max 1 ⑨ ⑩	410 V
$U_{-f/k}$ max 2 ⑨ ⑩	250 V
$U_{-f/k}$ p max ⑨	300 V
$U_{+f/k}$ p max ⑨	180 V
$U_{+f/k}$ max ⑨	135 V

4. Ratings for Circuit Design ⑦

I_{g3}	$\leq \pm 15 \mu A$
I_{g2}	$\leq \pm 5 \mu A$
I_{g1} ($-U_{g1} = 150$ V)	$\leq \pm 5 \mu A$

5. Capacitances

C_{g1}	approx.	7 pF
C_k	approx.	5 pF
C_{g3}	approx.	7 pF
$C_{g4g5a/m}$ max		2500 pF
$C_{g4g5a/m}$ min		2000 pF
$C_{g4g5a/m}$	approx.	500 pF

6. Optical Data

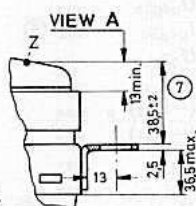
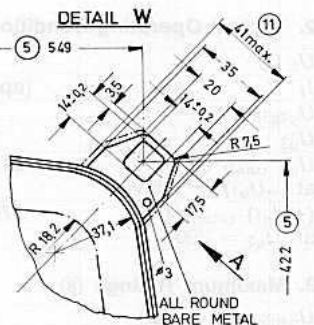
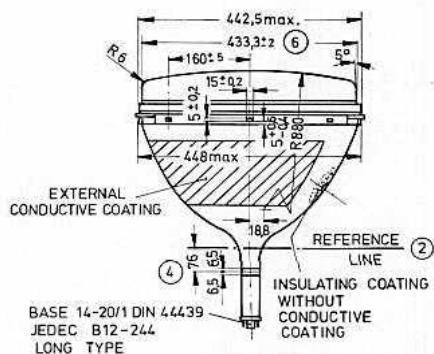
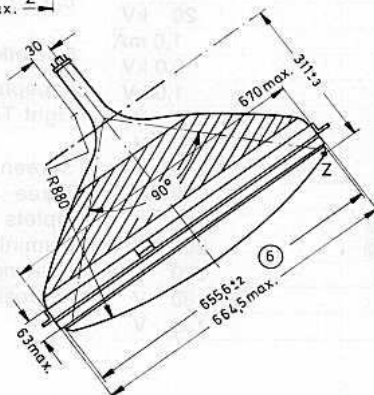
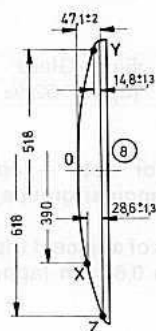
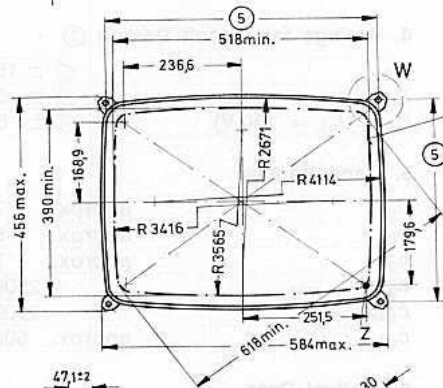
Faceplate:	Filter-Glass
Light Transmission	(appr.) 52 %

Screen:

Three separate phosphor dots — colour triplets — arranged in triangular groups and aluminized.

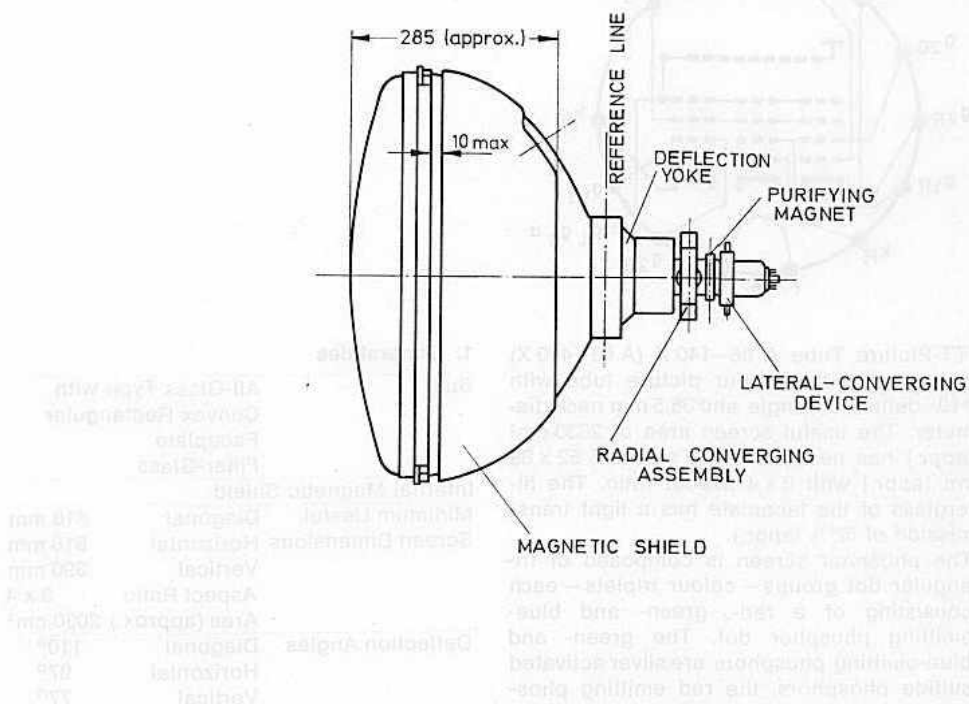
Spacing between centres of adjacent triplets nearest centre of screen 0,81 mm (approx.)

A 66—120 X

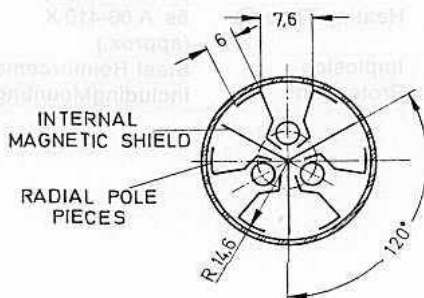


Reference line gauge see page 66

RELATIVE MOUNTING OF TYPICAL COMPONENTS



LOCATION OF RADIAL-CONVERGING POLE PIECES



BOTTOM VIEW OF BASE

