

Service Type CV464

INTRODUCTION

The T921 is a 9-inch diameter electrostatic focus, magnetic deflection Cathode Ray Tube designed for radar applications. The fluorescent colour of the aluminium backed screen is orange, with an orange afterglow of very long persistence. See Note 1 for alternative screens.

A high proportion of the beam current is delivered to the screen and the tube gives a display of adequate brightness from the short modulation pulses encountered in short range radars.

GENERAL DATA

Electrical and General

Cathode	Indirectly Heated, Oxide Coated
Heater Voltage (a.c. or d.c.)	4.0 V
Heater Current	1.1 A Max
Screen (<i>See Notes 1 and 2</i>):	Aluminium Backed
Fluorescent Colour	Orange
Afterglow Colour	Orange
Afterglow Persistence	Very Long
Deflection Angle	58°
Deflection Method	Magnetic
Focusing Method	Electrostatic
Inter-electrode Capacitances:	
Grid to all other electrodes	12 pF Max
Anode 1 to all other electrodes	15 pF Max
Cathode to all other electrodes	12 pF Max

Mechanical

Overall Length	452mm (17.80 inches)	Max
Overall Diameter	230mm (9 inches)	Max
Neck Diameter	36mm (1.42 inches)	Max
Net Weight	5 pounds (2.3 kg)	Approx
Base	International Octal (B.S.448/B8-0)	
Anode 3 Cap (<i>See Note 3</i>)		B.S.448/CT1
Mounting Position		Any

MAXIMUM RATINGS

(Absolute Values)

Anode 3 Voltage	13 kV Max
Anode 2 Voltage	2.15 kV Max
Anode 1 Voltage	2.20 kV Max
Grid Voltage (negative value, never positive)	200 V Max
Peak Heater to Cathode Voltage:	
Heater positive with respect to cathode	125 V Max
Heater negative with respect to cathode	125 V Max



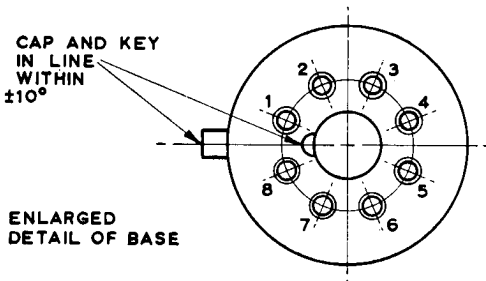
TYPICAL OPERATING CONDITIONS

Anode 3 Voltage	8.0	12	kV
Anode 2 Voltage for focus (<i>See Note 4</i>)	1.25	1.95	kV
Anode 1 Voltage (<i>See Note 4</i>)	1.35	2.0	kV
Grid Voltage for cut-off	-45 to -100	-70 to -126	V

NOTES

1. The T921 has an E.E.V. Z Screen which satisfies the requirements of the E.V.S. 009 Screen Specification. It can also be manufactured with alternative screens, and customers' enquiries are invited.
2. The fluoride screen is sensitive to burn and should not be operated with slow moving spots.
3. Alternatively, the T921 can be supplied with an anode cavity cap to B.S.448/CT8.
4. Anode 1 must be at least 50 volts positive with respect to anode 2 to prevent secondary electrons reaching the screen. A focus control range of at least $\pm 15\%$ in anode 2 voltage should be provided to facilitate adjustment by passing clearly through focus. To allow for variations in anode 3 voltage, either in design or as the result of mains fluctuations, the anode 2 voltage for focus may be taken as being approximately 16% of the anode 3 voltage.

OUTLINE DETAILS



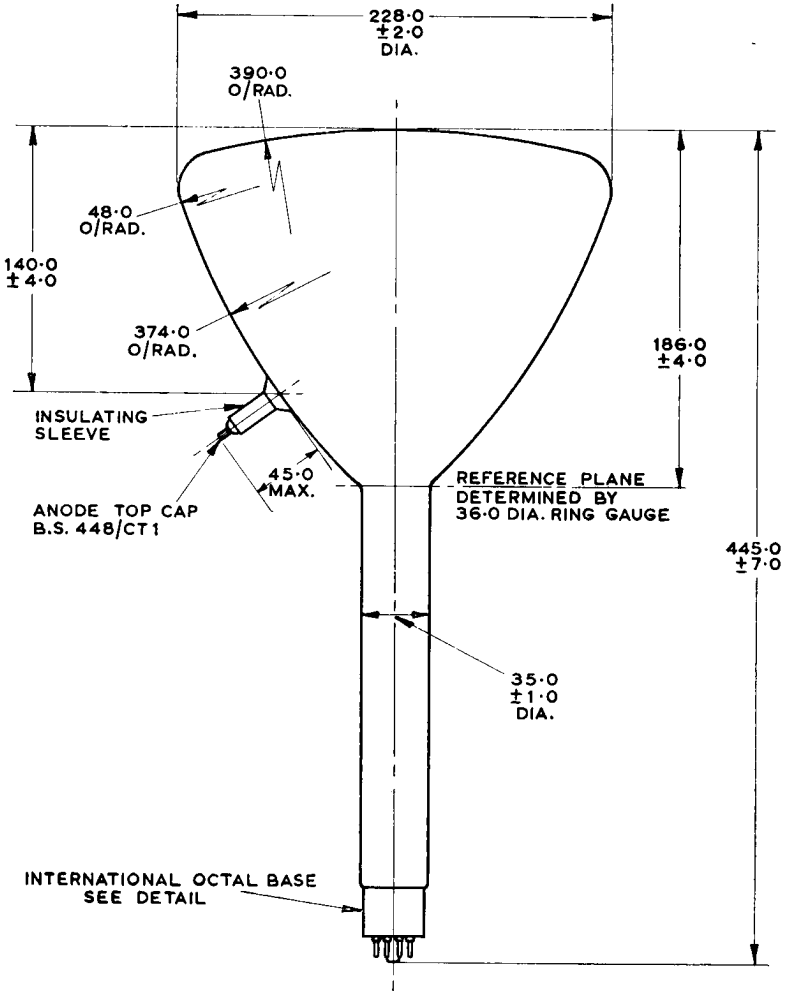
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PIN	ELEMENT
1	NO CONNECTION
2	ANODE 1
3	ANODE 2
4	NO CONNECTION
5	GRID 1
6	CATHODE
7	HEATER
8	HEATER
CAP	ANODE 3



OUTLINE

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ALL DIMENSIONS IN MILLIMETRES

ENGLISH ELECTRIC VALVE CO. LTD.

CHELMSFORD ENGLAND