# CATHODE RAY

THE 16ZP4 IS A DIRECT-VIEW PICTURE TUBE DESIGNED FOR USE IN TELEVISION APPLICATIONS. ITS FEATURES INCLUDE:

> UNIPOTENTIAL CATHODE MAGNETIC FOCUS & DEFLECTION EXTERNAL DOUBLE FIELD ION TRAP

GREY FILTER FACEPLATE ROUND GLASS CONSTRUCTION EXTERNAL CONDUCTIVE COATING 10 1/4" X 14 1/2" RASTER SIZE

## ELECTRICAL DATA

FOCUSING METHOD DEFLECTING METHOD		MAGNETIC MAGNETIC
DEFLECTION ANGLE (APPROX.)	52	DEGREES
DIRECT INTERELECTRODE CAPACITANCES (APPROX.)		
MAXIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	2 000	μμ f
MINIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	750	μμ f

## OPTICAL DATA

PHOSPHOR NUMBER		NO. 4
FLUORESCENT COLOR		WHITE
PHOSPHORESCENT COLOR		WHITE
PERSISTENCE		MEDIUM
FACEPLATE LIGHT TRANSMISSION AT CENTER (APPROX.)	65	PERCENT

# MECHANICAL DATA

OVERALL LENGTH	22 1/4 ± 3/8	INCHES
GREATEST DIAMETER	15 7/8 ± 1/8	INCHES
MINIMUM USEFUL SCREEN DIAMETER	14 1/2	INCHES
BULB CONTACT	RECESSED SMALL CAVITY CAP	J1-21
BASE	SMALL SHELL DUODECAL 5 PIN	85~57
BASING		12N
DULD CONTLOT ALLCHARMS		

BULB CONTACT ALIGNMENT

J1-24 CONTACT ALIGNS WITH PIN POSITION #3 ± 40 DEGREES

## PIN CONNECTIONS

PIN 1 - HEATER PIN 2 - GRID NO. 1 PIN 10 - GRID NO. 2



PIN 11 - CATHODE PIN 12 - HEATER ANODE CAP

BOTTOM VIEW

CONTINUED ON FOLLOWING PAGE

# TUNG-SOL -

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#### RATINGS DESIGN CENTER VALUES

HEATER VOLTAGE HEATER CURRENT MAXIMUM DC ANODE VOLTAGE MAXIMUM DC GRID #2 VOLTAGE	6.3 0.6 16 000 410	VOLTS AMP. VOLTS VOLTS
MAXIMUM GRID #1 VOLTAGE:		
DC NEGATIVE-BIAS VALUE	125	VOLTS
DC POSITIVE-BIAS VALUE	0	VOLTS
POSITIVE-PEAK VALUE	2	VOL TS
MAXIMUM DC PEAK HEATER-CATHODE VOLTAGE:		
HEATER NEGATIVE WITH RESPECT TO CATHODE		
DURING WARM-UP PERIOD NOT TO EXCEED 15 SECONDS	410	VOLTS
AFTER EQUIPMENT WARM-UP PERIOD	125	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	125	VOLTS

## TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

DC ANODE VOLTAGE	12 000	VOLTS
DC GRID #2 VOLTAGE	300	VOLTS
DC GRID #1 VOLTAGE A	-33 to -77	VOLTS
DC FOCUSING COIL CURRENT (APPROX.) B	110	MA -
DC ION TRAP CURRENT STANDARD COIL #108 (APPROX.)	120	MA.

Avisual extinction of undeflected focused spot.

## CIRCUIT VALUES

MAXIMUM GRID #1 CIRCUIT RESISTANCE 1.5 MEGOHMS

BFOR STANDARD FOCUS COIL \$109, OR EQUIVALENT, WITH THE COMBINED GRID \$1 BIAS VOLTAGE AND VIDEO 
SIGNAL VOLTAGE ADJUSTED TO PRODUCE A HIGHLIGHT BRIGHTNESS OF 20 FOOT LAMBERTS ON A 10 1/4" BY 
14 1/2" PICTURE SIZE. DISTANCE FROM REFERENCE LINE TO CENTER OF AIR GAP ON FOCUS COIL SHALL BE 
3.25 INCHES.