



ELECTRONIC TUBE REFERENCE

1P21

Specialized - Photo Tube electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PHOTOMULTIPLIER

RCA 1P21 nine-stage side-on photomultiplier tube with S-4 cesium-antimony photocathode, peak spectral response near 400 nm and high gain for low-light detection.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	11
NOMINAL HEATER	— / —	PARALLEL HEATER	— / —
HEATING	Indirect; cold cathode	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Photomultiplier

MAXIMUM PLATE VOLTAGE	1250 V
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RCA 1P21 nine-stage S-4 side-on photomultiplier. Anode-cathode supply max 1250 V DC or peak AC, anode-to-dynode9 max 250 V, each consecutive dynode gap max 250 V, dynode1-cathode max 250 V. Average anode current maximum 0.1 mA (this is output anode current, NOT cathode current); peak anode current maximum 1 mA (1949 data). Current amplification ~2,000,000 at 100 V per stage; ~300,000 at 75 V/stage and 50 V last gap. Typical luminous anode sensitivity 80 A/lm at 100 V/stage, 12 A/lm at 75 V/stage; minimum 40 A/lm at 100 V/stage (1949). Peak spectral response 400±50 nm, S-4 cesium-antimony photocathode. Anode-dynode9 capacitance ~4-4.4 pF, anode-to-all ~6-6.5 pF. No heater; maximum ambient +75 °C.