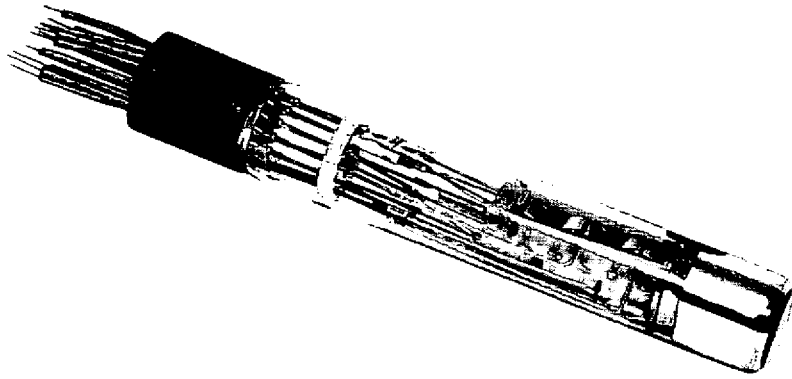




# INDUSTRIAL MULTIPLIER PHOTOTUBES

**TYPE:  
6935**



## GENERAL CHARACTERISTICS

ELECTRICAL DATA	Min.	Avg.	Max.	Units
Spectral response .....		S11		
Cathode luminous sensitivity at 210 volts, 0 cycles between cathode and all other electrodes .....	30	50		$\mu\text{A}/\text{lumen}$
Anode luminous sensitivity 105 volts/stage, 0 cycles .....	6	15		$\text{A}/\text{lumen}$
Cathode sensitivity at maximum response at 210 volts between cathode and all other electrodes .....		.045		$\mu\text{A}/\mu\text{W}$
Anode dark current at 105 volts/stage (25°C) .....			0.1	$\mu\text{A}$
Current amplification at 105 volts/stage .....		300,000		
Wavelength at maximum response .....		4400 $\pm$ 500		Angstroms
Wavelength at 10% of maximum response on long wavelength side .....		6125 $\pm$ 275		Angstroms
Wavelength at 10% of maximum response on short wavelength side .....		3250 $\pm$ 250		Angstroms

MECHANICAL DATA			
Window dimensions, minimum .....	$\frac{1}{2}$		In Dia.
Tube Diameter .....	$\frac{3}{4} \pm \frac{1}{32}$		In.
Overall Length .....	$4\frac{7}{8} \pm \frac{1}{4}$		In.
Base — Resin (potted) flexible leads .....			
Mounting Position .....	Any		
Window index of refraction .....	1.5		

MAXIMUM RATINGS		
Peak cathode current (Note 1) .....	10	$\mu\text{A}$
Average anode current (Note 2) .....	0.1	$\text{mA}$
Peak anode current .....	1.0	$\text{mA}$
Average anode dissipation (Note 2) .....	0.05	$\text{W}$
Peak anode dissipation .....	0.5	$\text{W}$
Supply voltage between anode and cathode (DC or peak AC) .....	1300	Volts
Supply voltage between last dynode and anode (DC or peak AC) .....	125	Volts
Supply voltage between cathode and 1st dynode (DC or peak AC) .....	250	Volts
Ambient Temperature .....	75	$^{\circ}\text{C}$

## NOTES

- The cathode current given here is that current at which the response of the cathode current ceases to be a linear function of the light intensity because of cathode resistance. In general, the cathode current must be kept well below this value in order to satisfy the maximum ratings of the anode current.
- Averaged over a 30 second interval maximum.
- Supply voltage between cathode and first dynode should be 2 times supply voltage between succeeding dynodes.

RECOMMENDED ACCESSORY: MU-METAL SHIELD DU MONT P/N 243-2

## FEATURES

- S11 Response
- 10 Dynode Stages
- $\frac{3}{4}$  Inch Diameter
- Cesium Antimony Dynodes
- Potted Base for:
  - Moisture Resistance
  - Shock Resistance
  - Socket Elimination
  - Noise Free Connections
- Comparable Performance with Large Diameter Tubes
- High Gain at Low Operating Voltages
- Small Size for Limited Space Use

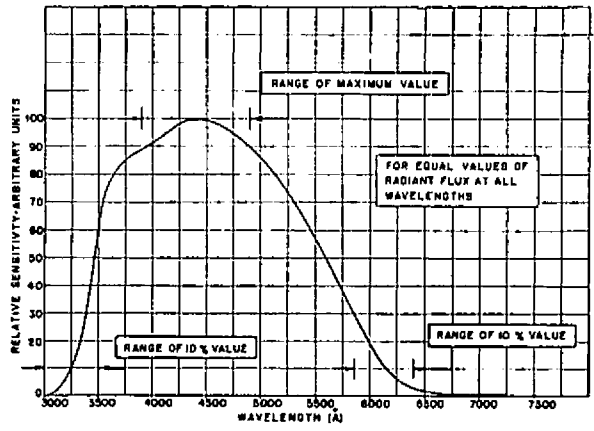
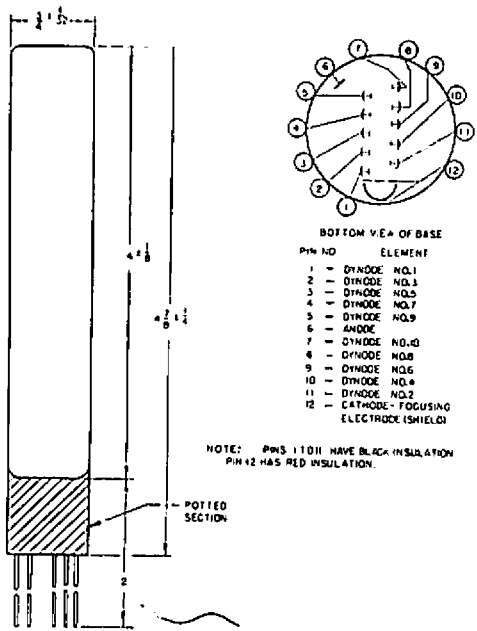
## APPLICATIONS

- Scintillation Probes
- Analysis Low Level Light Sources
- Oil Exploration
- Spectroscopy

3.9



**INDUSTRIAL TUBE SALES DEPARTMENT**  
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**SPECTRAL RESPONSE OF S11 PHOTOCATHODE**

