

**Modified R928, 8 mm × 6 mm Photocathode Size
Low Dark Counts, Extended Red Multialkali, High Sensitivity
For Photon Counting Applications**

The R2949 is a 28mm (1-1/8 inch) diameter, 9-stage, side-on type photomultiplier tube having the same extended red multialkali photocathode as the R928. The R2949 features very low dark counts, extremely high quantum efficiency, high gain, good S/N ratio and wide spectral response from UV to near infrared.

The R2949 is well suited for use in various low-level photometries such as general single photon counting applications and fluorescence life time measurement.

The R2949 is directly interchangeable with the R928.



FEATURES

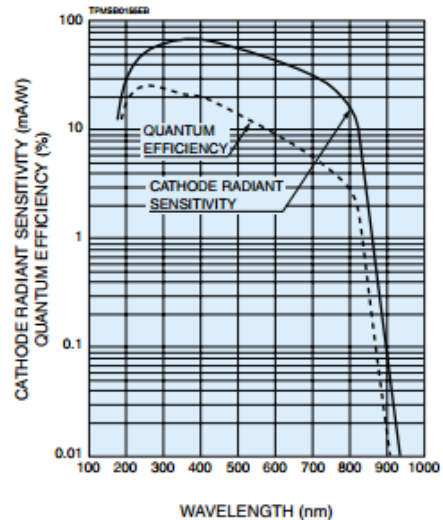
- **Low Dark Counts** 300 s⁻¹ (at 25 °C)
- **Low Dark Current** 2 nA (after 30 min storage in darkness)
- **Wide Spectral Response** 185 nm to 900 nm
- **High Cathode Sensitivity**
 - Luminous 200 μA/lm
 - Radiant at 400 nm 68 mA/W
- **High Anode Sensitivity (at 1000 V)**
 - Luminous 2000 A/lm
 - Radiant at 400 nm 6.8 × 10⁵ A/W
- **Low Drift and Hysteresis**

SPECIFICATIONS

GENERAL

Parameter	Description/Value	Unit
Spectral Response	185 to 900	nm
Wavelength of Maximum Response	400	nm
Photocathode	Material	Multialkali
	Minimum Effective Area	8 × 6
Window Material	UV glass	—
Dynode	Secondary Emitting Surface	Multialkali
	Structure	Circular-cage
	Number of Stages	9
Direct Interelectrode Capacitances	Anode to Last Dynode	4
	Anode to All Other Electrodes	6
Base	11-pin base JEDEC No. B11-88	—
Weight	Approx. 45	g
Operating Ambient Temperature	-30 to +50	°C
Storage Temperature	-30 to +50	°C
Suitable Socket	E678-11A (Sold Separately)	—
Suitable Socket Assembly	E717-63 (Sold Separately)	—

Figure 1: Typical Spectral Response



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**PHOTOMULTIPLIER TUBE
R2949**
(Low Dark Counts Type of R928)

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SCIENCETECH

1450 Global Drive, London, Ontario Canada, N6N 1R3
Phone: 519-644-0135 / Fax: 519-644-0136
E-mail: Sales@Sciencetech-Inc.com

www.sciencetech-inc.com