



EKRAN
OPTICAL SYSTEMS



PMT



Photomultiplier tube PMT -176

The photomultiplier PMT-176 has a translucent antimony-potassium-sodium-cesium photocathode with spectral characteristics in the area of 300 is 850 nm, the electrostatic focusing of electrons, 12-dynode multiplied system of louvered type, flat face optical input and reflex output; made without socle design. The photomultiplier is used to convert light signals into electrical spectrometry and registration gamma radiation scintillation method, as well as in medical diagnostic equipment.

Technical specification

Parameter, unit	Standard		
	No less	Nominal	No more
Constructive dimensions			
Diameter (max), mm	52		
Useful photocathode diameter, mm	46		
Fit length, mm	110 ₆		
Weight, g	135		
Electrical and lighting parameters			
Luminous sensitivity of photocathode, A/lm	1x10 ⁻⁴	-	-
Spectral sensitivity of photocathode at the wavelength 410 nm, A/Wt	5,2x10 ⁻²	-	-
Luminous anode sensitivity, A/lm	-	10	-
Supply voltage, V	-	-	1500
Dark current, A	-	-	8x10 ⁻⁹
Energetic resolution, % - cesium -137	-	-	7,3
- cobalt -57	-	-	11,5
Energy equivalent of its noise, keV	-	-	1,5
Instability, %	-	-	3
Nonlinearity of luminescence characteristics in impulse regime when the anode current 0,3 A and impulse duration is no more 2x10 ⁻⁶ , %	-	-	30
Readiness time, min	-	-	3
Resistance to external factors			
Sinusoidal vibration (vibration strength): - frequency range, Hz - acceleration amplitude, m/s ² (g)	1÷2000 100 (10)		
Mechanical shock with peak shock acceleration, m/s ² (g) - repeated action - single action	400 (40) 1500 (150)		
Operating temperature of ambient, °C	minus 60; +70		
High pressure air, kPa (kgf/cm ²)	294 (3)		
Low working pressure, kPa (mm Hg)	53,3 (400)		
MTF, h	3000		



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