

SPECIFICATION

UV IMAGE INTENSIFIER TUBE "SAPPHIRE 2"



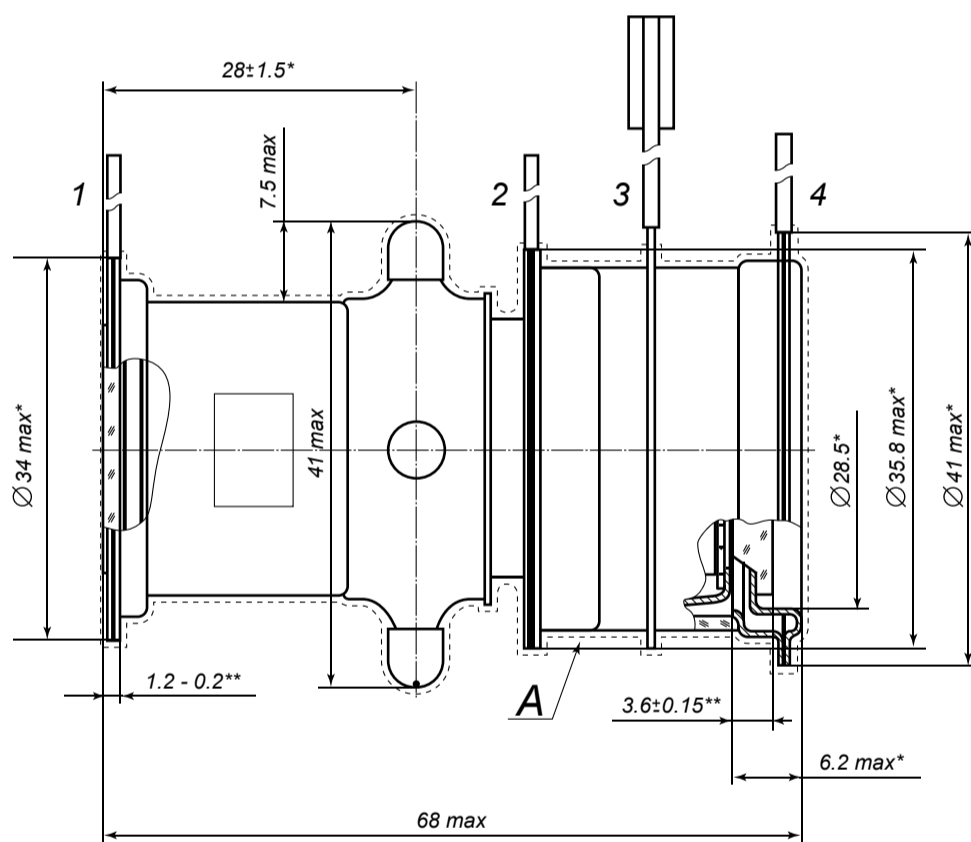
IIT "Sapphire 2" has an electro-optical system with image reversal, input window made of magnesium fluoride, chevron assembly (2 MCPs,) yellow-green phosphor screen, FOP/ glass output and CsTe photocathode. IIT is intended for UV radiation intensification and imaging, enabling operation in photon counting mode.



MAIN TECHNICAL DATA

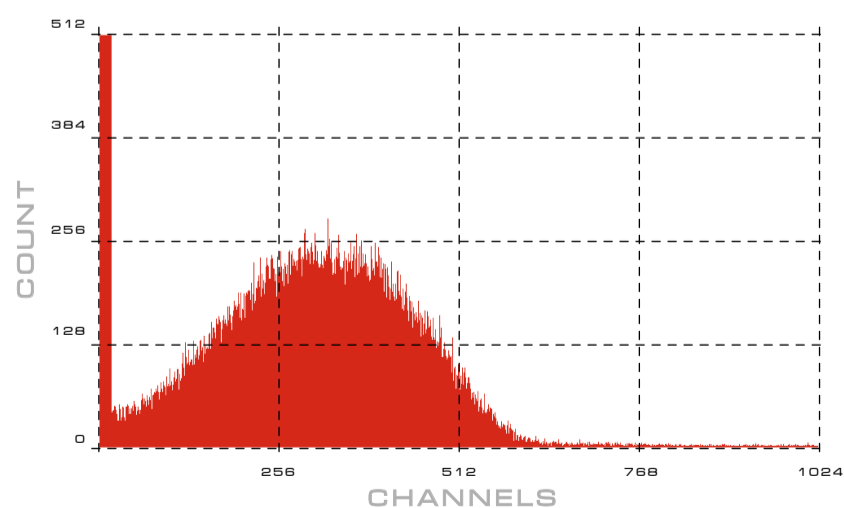
PARAMETER	DIMENSION	VALUE
Spectral sensitivity range	nm	120 - 360
Spectral sensitivity range at wavelength $\lambda = 250$ nm	mA/W	20 min.
Photocathode active area diameter	mm	15
Amplitude resolution	%	100 max.
MCP gain	-	10^6 min.
Dark Pulses Count Rate Density	pulse/s ⁻¹ ×cm ⁻²	10 max.
Peak-to-Valley ratio (P/V:1)	-	3 : 1 min.
Weight	g	50 max.

DIMENSIONAL OUTLINES



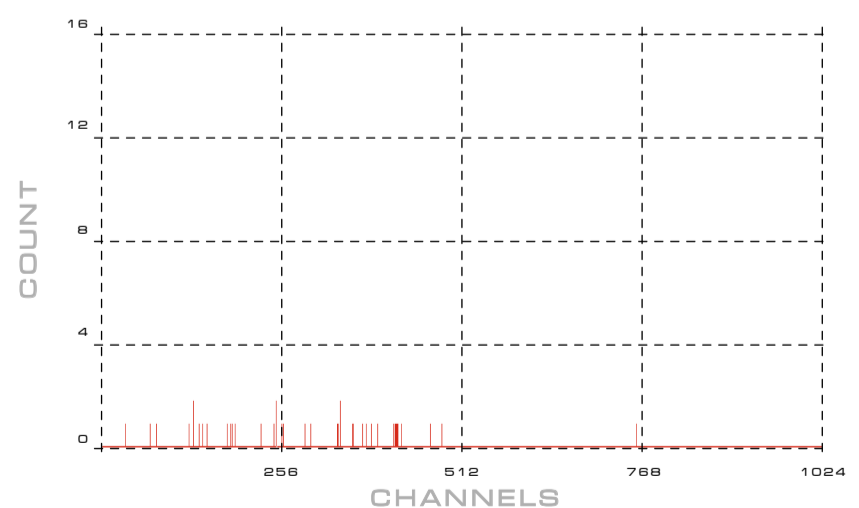
Lead's number	Electrode	Voltage range
1	Photocathode	"negative" (4.0 – 4.5), kV
2	Input of multiplier	"negative" (2000 – 2400), V
3	Output of multiplier	0
4	Screen	(4.0 – 4.5) kV

SINGLE-ELECTRON AMPLITUDE DISTRIBUTION OF "SAPPHIRE 2"



Amplitude resolution $R = 100\%$,
Peak-to-Valley ratio (P/V:1) = 5.5:1

DARK PULSES DISTRIBUTION OF "SAPPHIRE 2"



Time – 10 sec;
Dark Pulses Count Rate Density 2.13 pulses/sec⁻¹ × cm²

