

Photon Detector

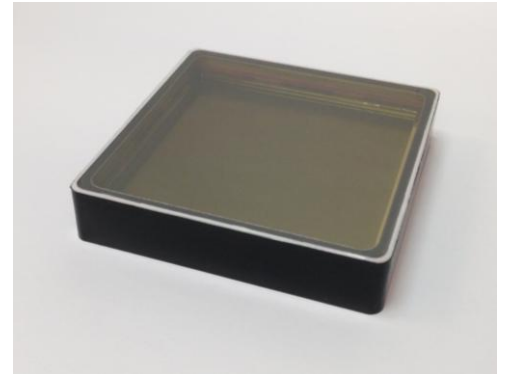
XP85122

10 μ m MCP-PMT
32x32 Anode
53 mm Square

PLANACON[®]

Applications

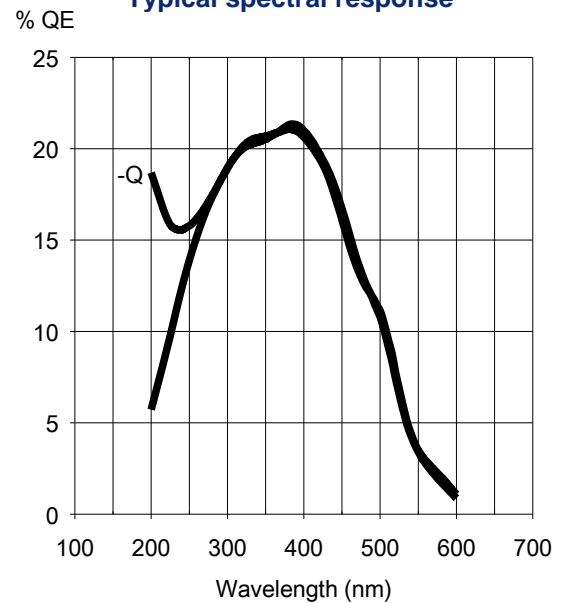
- ✓ Specialized Medical Imaging
- ✓ Cherenkov – RICH, TOF, TOP, DIRC
- ✓ High Energy Physics Detectors
- ✓ Homeland Security



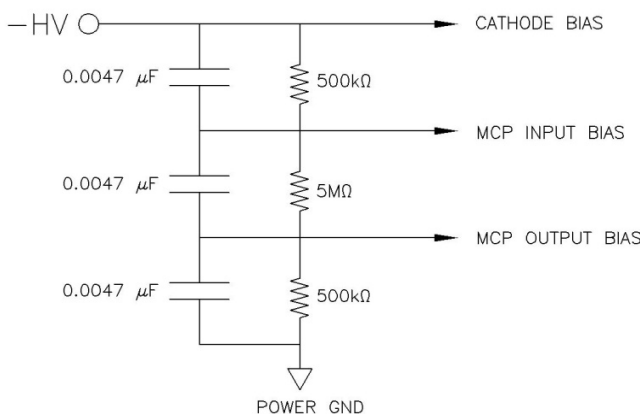
Description	
Window options	Schott 8337B or equivalent, UVFS (-Q)
Photocathode	Bialkali
Multiplier structure	MCP chevron (2), 10 μ m pore, 60:1 L:D ratio
Anode structure	32x32 array, 1.1 / 1.6 mm (size / pitch)
Active area	53x53 mm
Package open-area-ratio	80%

Photocathode characteristics	Min	Typ	Max	Unit
Spectral range:	200		650	nm
Maximum sensitivity at		380		nm
Sensitivity:				
Luminous *	50	60		μ A/lm
Blue *	7.5	8.5		μ A/lmF
Radiant, at peak		70		mA/W
Quantum Efficiency		22		%
Characteristics	Min	Typ	Max	Unit
Overall Voltage for 10 ⁵ Gain *		FIG	2800	V
Total anode dark current @ 10 ⁵ gain *		2	10	nA
Rise time		0.5		ns
Pulse width		0.7		ns

Typical spectral response

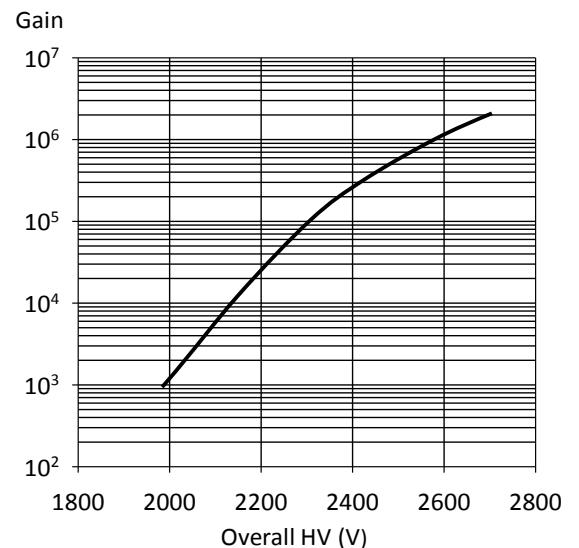


Recommended Voltage Divider (not included)



CAUTION: POWER GROUND CONNECTION AND UNUSED ANODES MUST BE CONNECTED TO GROUND FOR SAFETY AND PROPER TUBE OPERATION

Typical gain curve



* Characteristic measured and recorded on the test ticket of each tube

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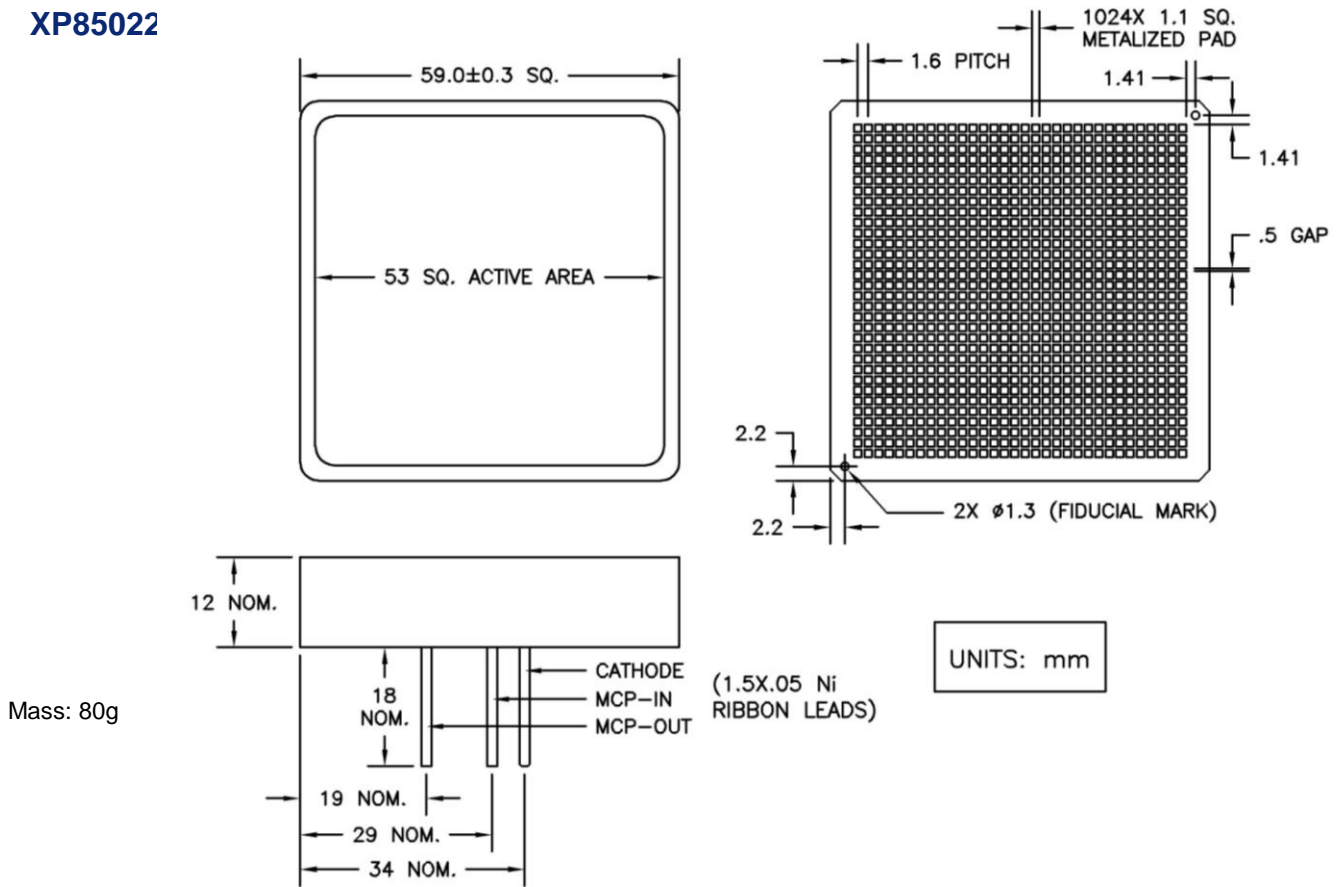
Rev00-Jan14

Photon Detector

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Outline (dimensions in mm)

XP85022



Limiting values	Min	Max	Unit
Cathode to MCP _{in} voltage		500	V
MCP _{in} to MCP _{out} voltage		2400	V
MCP _{out} to Anode voltage		500	V
Overall HV when using recommended voltage divider		2800	V
Total anode current under uniform illumination		2	μA
Ambient temperature:			
Operating Temperature	0	+50	°C
Storage Temperature (for extended periods)	-15	+50	°C

* Warning: Continuous operation at maximum ratings may result in shorter product life or unreliable performance.

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