

Photomultiplier

XP29507

7-stage 29mm (1 1/8"), Round tube

Applications

- ✓ Scintillation counting
- ✓ High energy physics
- ✓ High light level

Features

- ✓ Low voltage
- ✓ Low noise



Description	
Window material	Low K borosilicate glass
Photocathode	Bi-alkali
Refr. Index at 420nm	1.48
Multiplier structure	Linear focused

Photocathode characteristics	Min	Typ	Max	Unit
Spectral range :		270-650		nm
Maximum sensitivity at:		420		nm
Sensitivity :				
Luminous:		110		μA/lm
Blue *:	9	11		μA/lmf
Radiant, at 420nm		90		mA/W

Characteristics with voltage divider A	Min	Typ	Max	Unit
Gain slope (vs supp. Volt., log/log)		5		
For an anode sensitivity of		1		A/lm
Supply voltage *	450	600	700	V
Gain		0.9x10 ⁴		
Anode dark current *		0.02	0.8	nA
Mean anode sensitivity deviation:				
Long term (16h):		1		%
After change of count rate:		1		%
Vs temperature between 0 and +40°C at 420 nm		-0.2		%/K
Gain halved for a magnetic field of:				
Perpendicular to axis "n":		0.4		mT
Parallel to axis "n":		0.2		mT

For a supply voltage of : 1000V	Min	Typ	Max	Unit
Linearity (2%) of anode current up to :		10		mA
Anode pulse:				
Rise time:		3.5		ns
Transit Time:		23		ns
Capacitances anode to all dynodes:		5		pF

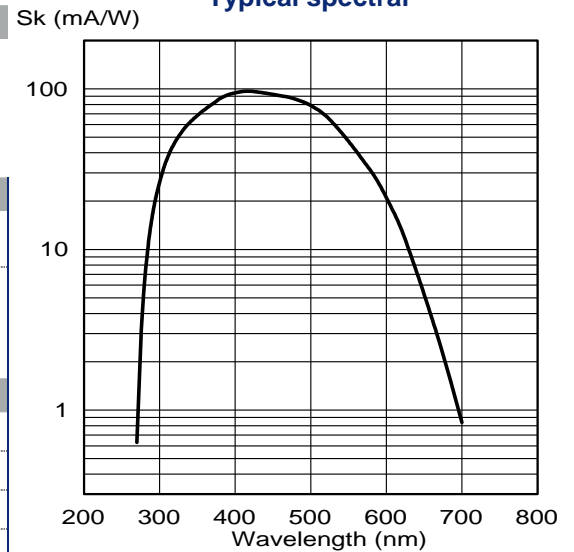
Recommended Voltage Divider

Type A for maximum gain

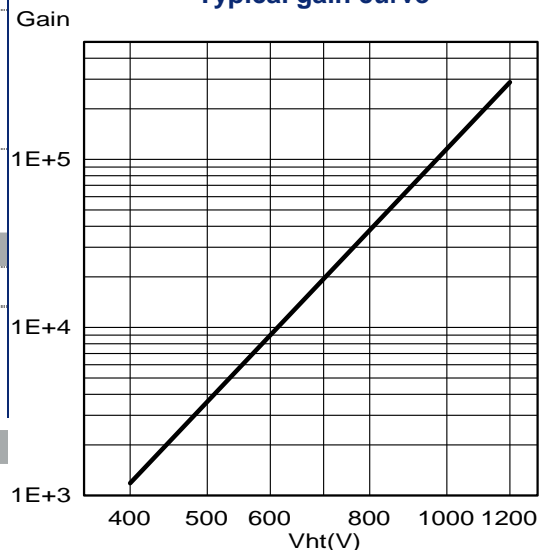
K	D1	D2	D3	D4	D5	D6	D7	A	
2	1	1	1	1	1	1	1	1	(total : 9)

* characteristic mentioned on the test ticket of the tube

Typical spectral



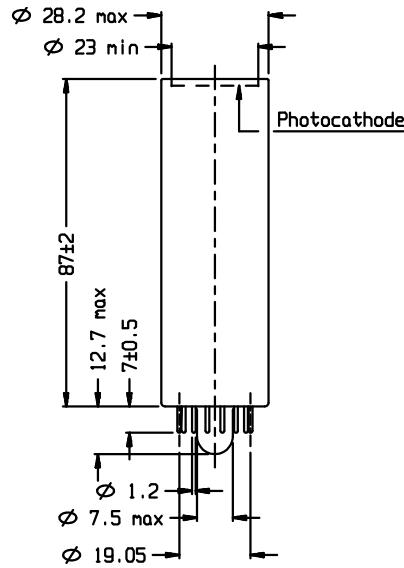
Typical gain curve



Photomultiplier

XP29507

Outline (dimensions in mm)



Mass: 30g

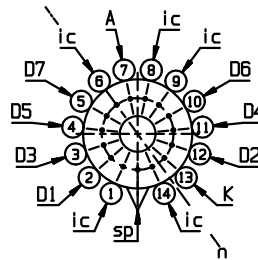
Accessories :

Socket: FE1114

Socket for PCB: FE3114/01

Mu-metal shield: MS179

PWS/amplifier: PA29507



K: cathode
Dn: dynode

A: anode
ic: internal connection

sp: short pin

n: plane of symmetry of the multiplier

Limiting values	Min	Max	Unit
Anode luminous sensitivity		10	A/lm
Supply voltage		1200	V
Continuous anode current		0.2	mA
Voltage between:			
D1 and photocathode:	80	300	V
Consecutive dynode:		200	V
Anode and D7:	30	200	V
Ambient temperature:			
Short operation (<30 mn):	-30	+80	°C
Continuous operation & storage:	-30	+50	°C

Variants

Finishing

F with flying leads \varnothing 0.5

FB with flying leads and plastic base

XP29507

Option

C with electrostatic coating

(conductive paint connected to the cathode + insulating coating)

Also, other variants can be made. Please, contact us to discuss any specific product requirements.