

# Photomultiplier

# XP2062

**10-stage  
39mm (1,5"), Round tube**

## Applications

- ✓ Photometry
- ✓ scintillation

## Features

- ✓ High PHR
- ✓ High gain



## Description

Window material	Low K borosilicate glass
Photocathode	Bi-alkali
Refr. Index at 420nm	1.49
Multiplier structure	Linear focused

## Photocathode characteristics

	Min	Typ	Max	Unit
Spectral range :		290-680		nm
Maximum sensitivity at :		420		nm
Sensitivity :				
Luminous :		100		μA/lm
Blue * :	10	12		μA/lmf
Radiant, at 420nm		100		mA/W

## Characteristics with voltage divider A

	Min	Typ	Max	Unit
Gain slope (vs supp. Volt., log/log)		7.5		
For an anode blue sensitivity of		7.5		A/lmf
Supply voltage *	600	750	900	V
Gain		6.25x10 <sup>5</sup>		
Anode dark current *		0.1	3	
Pulse height resolution <sup>137</sup> Cs - NaI(Tl) 2"x2"		7.5		%
Pulse height resolution <sup>55</sup> Fe - NaI(Tl) 2" x2" *		38	40	%
Peak to valley ratio for <sup>55</sup> Fe		40		
Background noise at 0.2 pe *		300		cps
Mean anode sensitivity deviation :				
Long term (16h) :		0.6		%
After change of count rate :		1		%
Vs temperature between 0 and +40°C at 420 nm		-0.3		%/K
Gain halved for a magnetic field :				
Most sensitive direction :		0.5		mT
<b>For a supply voltage of : 800V</b>	<b>Min</b>	<b>Typ</b>	<b>Max</b>	<b>Unit</b>
Linearity (2%) of anode current up to :		30		mA
Gain		10 <sup>6</sup>		
Anode pulse: Rise time :		3		ns
Duration at half height :		7		ns
Transit time :		36		ns
Capacitance anode to all :		5		pF

## Recommended Voltage Divider

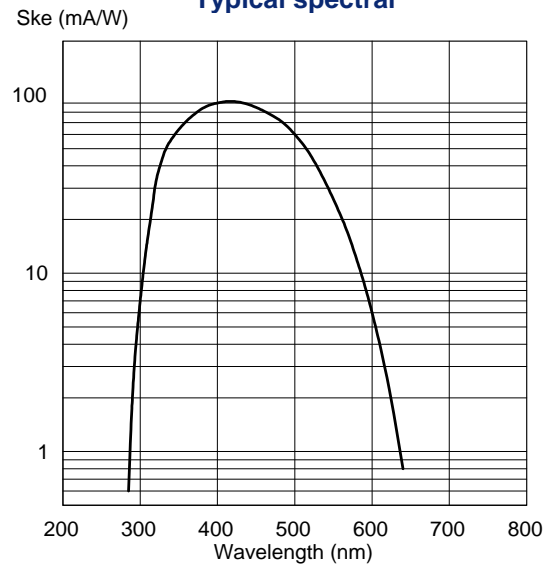
Type A for maximum gain

K	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	A	
2	1	1	1	1	1	1	1	1	1	1	1	(total : 12)

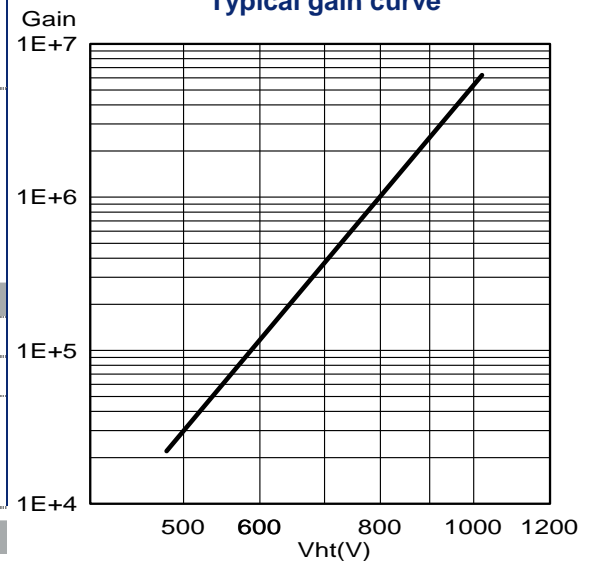
\* characteristic mentioned on the test ticket of the tube

# PHOTONIS

Typical spectral



Typical gain curve

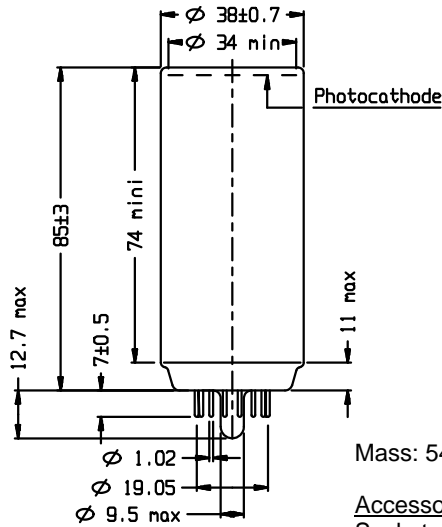


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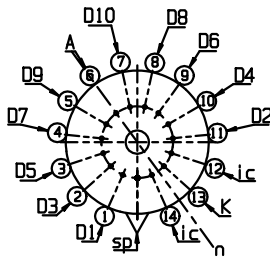
## Outline (dimensions in mm)

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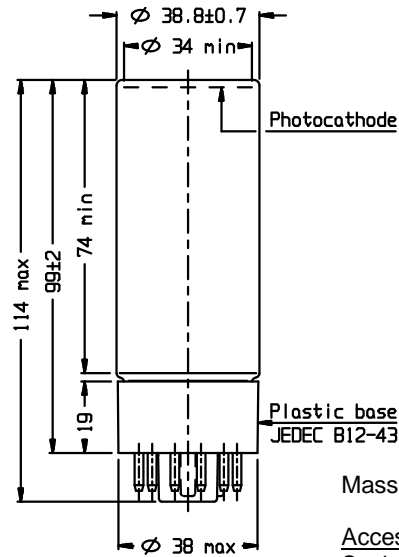


Mass: 54g

Accessories:  
Socket: FE3114  
Mu-metal shield: MS170

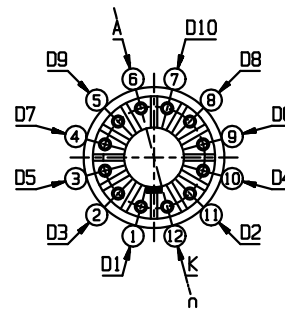


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Mass: 74g

Accessories:  
Socket: FE1012  
Mu-metal shield: MS170  
Voltage divider: VD200K



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 blue sensitivity		75	A/lmf
Supply voltage		1400	V
Continuous anode current		0.2	mA
Voltage between :			
D1 and photocathode :	80	400	V
Consecutive dynode :		300	V
Anode and D10 :	30	300	V
Ambient temperature :			
Short operation (<30 mn) :	-30	+80	°C
Continuous operation & storage :	-30	+60	°C

### Variants

#### Finishing

**B** with plastic base JEDEC B12-43  
**F** with flying leads  $\varnothing 0.5$   
**FB** with flying leads and plastic base

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#### 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.