

Photomultiplier

XP3330

10-stage 76mm (3"), Round tube

Applications

- ✓ Scintillation and photon counting
- ✓ X-ray analyser
- ✓ Bioluminescence

Features

- ✓ High PHR
- ✓ 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 :		75		μA/lm
Blue * :	9	11		μA/lmf
Radiant, at 420nm		85		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 *	700	900	1100	V
Gain		7x10 ⁵		
Anode dark current *		0.5	5	nA
Background noise :		500	2000	cps
Pulse height resolution ¹³⁷ Cs :		7.5		%
Pulse height resolution ⁵⁵ Fe :		38		%
Single electron spectrum Peak to Valley ratio :		2.0		
Mean anode sensitivity deviation :				
Long term (16h) :		1		%
After change of count rate :		1		%
Vs temperature between 0 and +40°C at 420 nm		-0.3		%/K

For a supply voltage of : 1200V

	Min	Typ	Max	Unit
Linearity (2%) of anode current up to :		10		mA
Anode pulse :				
Rise time :		5		ns
Duration at half height :		12		ns
Transit Time :		48		ns

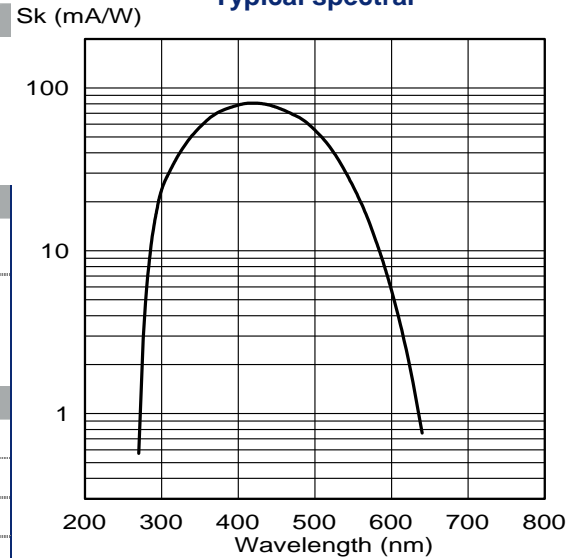
Recommended Voltage Divider

Type A for maximum gain

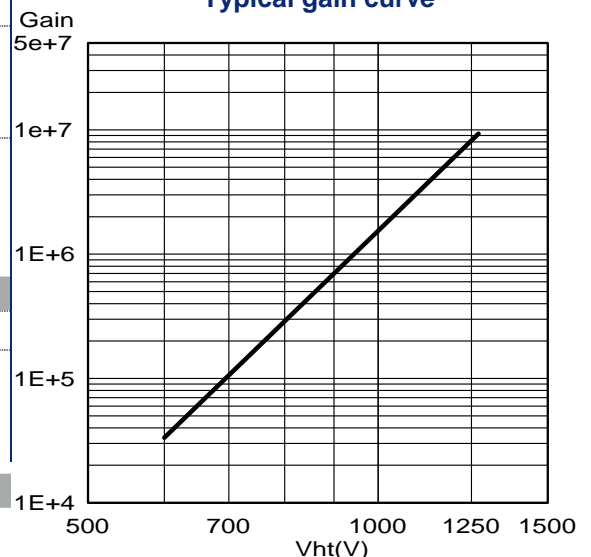
K	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	A	
2	1	1	1	1	1	1	1	1	1	1	1	(total : 12)

* characteristic mentioned on the test ticket of the tube

Typical spectral



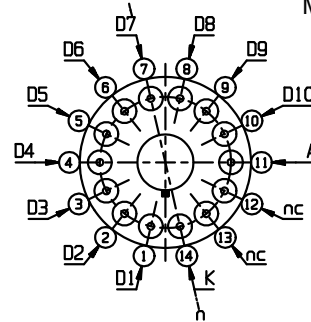
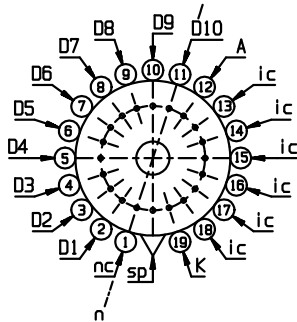
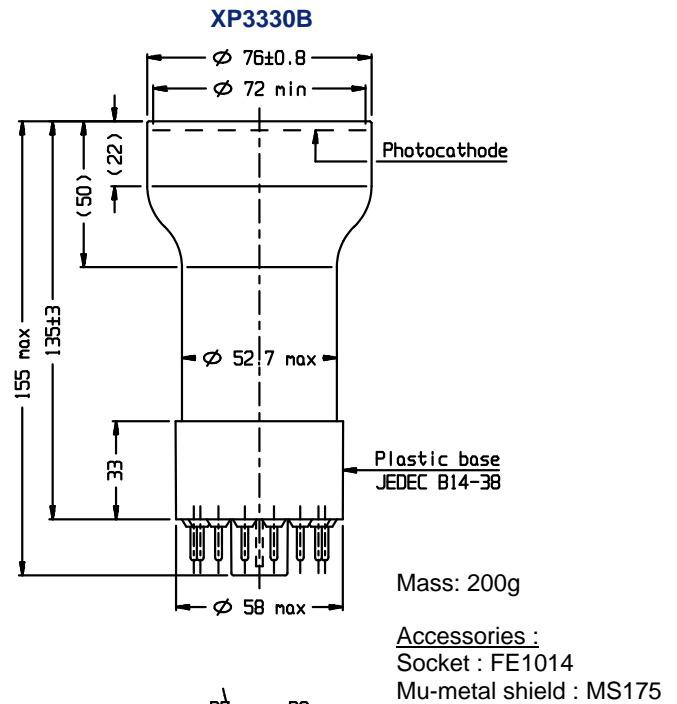
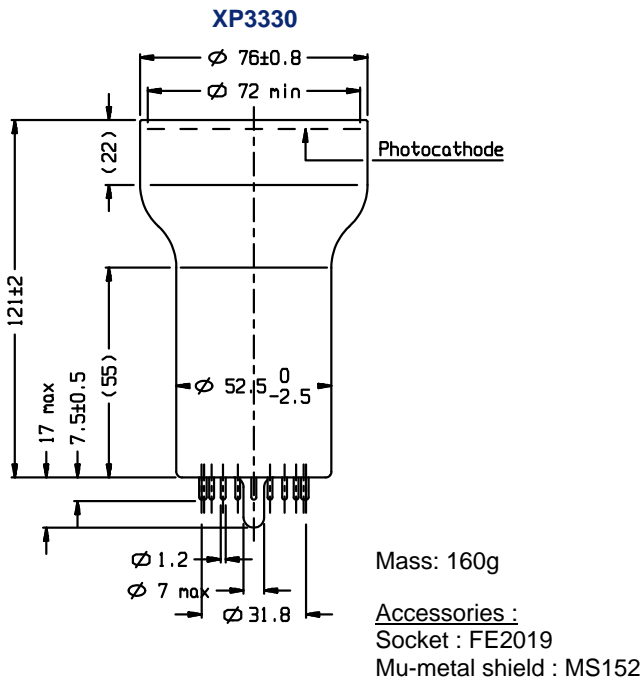
Typical gain curve



Photomultiplier

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Outline (dimensions in mm)



K: cathode
Dn: dynode

A: anode
ic: internal connection

sp: short pin
nc: not connected

n: plane of symmetry of the multiplier

Limiting values

	Min	Max	Unit
Anode blue sensitivity		100	A/lmf
Supply voltage		1500	V
Continuous anode current		0.2	mA
Voltage between :			
D1 and photocathode :	100	500	V
Consecutive dynode :		300	V
Anode and D10 :	40	300	V
Ambient temperature :			
Short operation (<30 mn) :	-30	+80	°C
Continuous operation & storage :	-30	+50	°C

Variants

Finishing

B with plastic base JEDEC B14-38
F with flying leads $\varnothing 0.5$
FB with flying leads and plastic base

XP3330

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.