# Photomultiplier XP2060

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

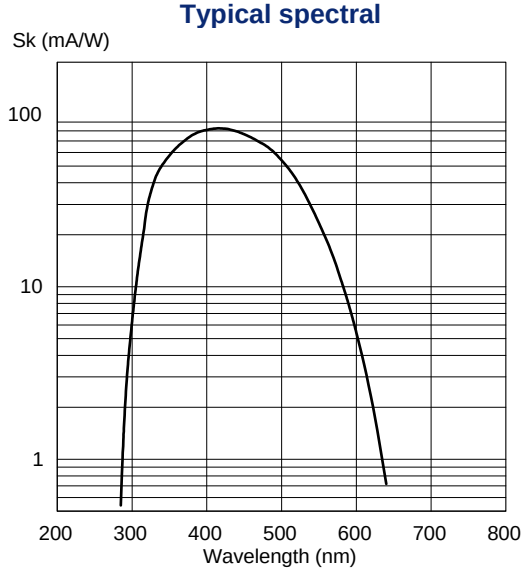
### Applications
- ✓ Photometry
- ✓ Scintillation counting

### Features
- ✓ High PHR
- ✓ High gain

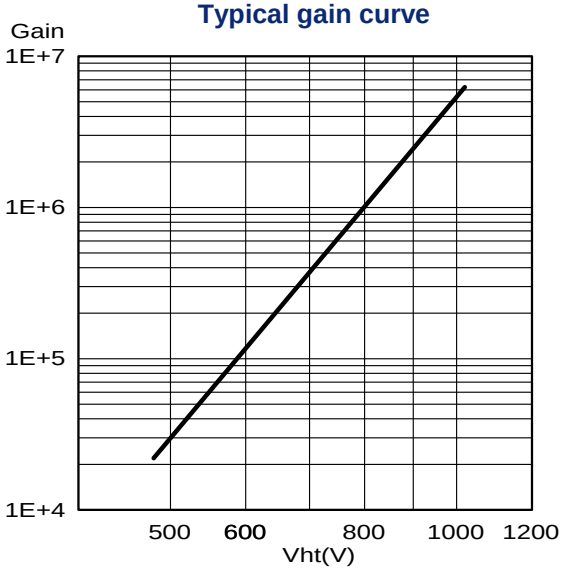
| Description | |
|---|---|
| Window material | Borosilicate glass |
| Photocathode | Bi-alkali |
| Refr. Index at 420nm | 1.48 |
| Multiplier structure | Linear focused |

| Photocathode characteristics | Min | Typ | Max | Unit |
|---|---|---|---|---|
| Spectral range : | | 290-650 | | nm |
| Maximum sensitivity at : | | 420 | | nm |
| Sensitivity : | | | | |
| Luminous : | | 90 | | µA/lm |
| Blue * : | 10 | 11.5 | | µA/lmf |
| Radiant, at 420nm | | 90 | | 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 | | $6.5x10^5$ | | |
| Anode dark current * | | 2 | 10 | |
| Pulse height resolution $^{55}$Fe - NaI(Tl) 2" x2" | | 39 | | % |
| Peak to valley ratio for $^{55}$Fe | | 40 | | |
| 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 : | | | | |
| Perpendicular to axis "n" of : | | 0.12 | | mT |
| Parallel to axis "n" : | | 0.3 | | mT |
| Parallel to tube axis : | | 0.5 | | mT |
| **For a supply voltage of : 800V** | **Min** | **Typ** | **Max** | **Unit** |
| Linearity (2%) of anode current up to : | | 30 | | mA |
| Gain | | $10^6$ | | |
| Anode pulse: Rise time : | | 3 | | ns |
| Duration at half height : | | 7 | | ns |
| Transit time : | | 36 | | ns |

### Typical spectral




### Typical gain curve




### Recommended Voltage Divider

**Type A** for maximum gain

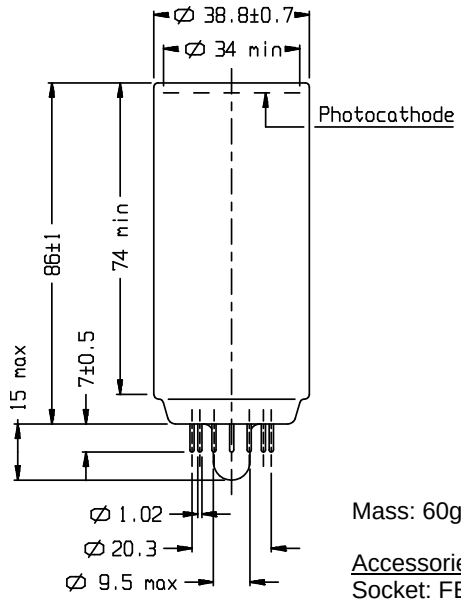
| K | D1 | D2 | D3 | D4 | D5 | D6 | D7 | D8 | D9 | D10 | A | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | (total : 12) |

**** characteristic mentioned on the test ticket of the tube***

# Photomultiplier XP2060

## Outline (dimensions in mm)

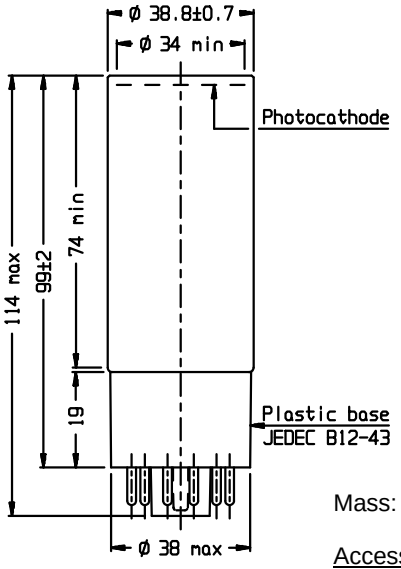
**XP2060**




Mass: 60g

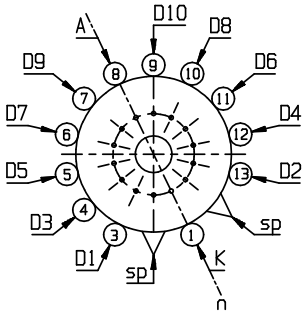
Accessories:
Socket: FE1112
Mu-metal shield: MS170

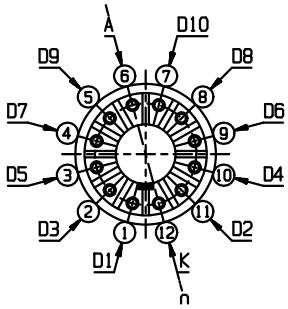
**XP2060B**




Mass: 80g

Accessories:
Socket: FE1012
Mu-metal shield: MS170
Voltage divider: VD200K/01




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 | ℃ |
| Continuous operation & storage : | -30 | +50 | ℃ |

## Variants

**XP2060** ▭ ▭

**Finishing**
**B** with plastic base JEDEC B12-43
**F** with flying leads ∅ 0.5
**FB** with flying leads and plastic base

**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.