

Model No:

CsTe-PMT-L



Description:

Integrated PMT Detector with response from 115 to 290 nm.

This is a UV/VUV Cesium Telluride Cathode Photomultiplier (PMT) detector. This product has a magnesium fluoride and can be mounted directly onto a vacuum system with a 2.75" CF flange or similar adapter. This PMT has >15 % peak quantum efficiency and is configured for easy attachment to a High Vacuum system. The system is supplied with a high voltage power supply. It may also be supplied with an optional amplifier. The high voltage may be adjusted with an externally adjustable trimpot .

The PMT can be interfaced to the vacuum chamber using Resonance's 1 in 20 tpi couplings, CF or other flanging systems. For maximum response no window is placed in front of the PMT, which is in a vacuum housing. An optional Nitrogen purge assembly is available with internal window if removal from the vacuum chamber without breaking vacuum is required.

Electrical /Optical Specifications:

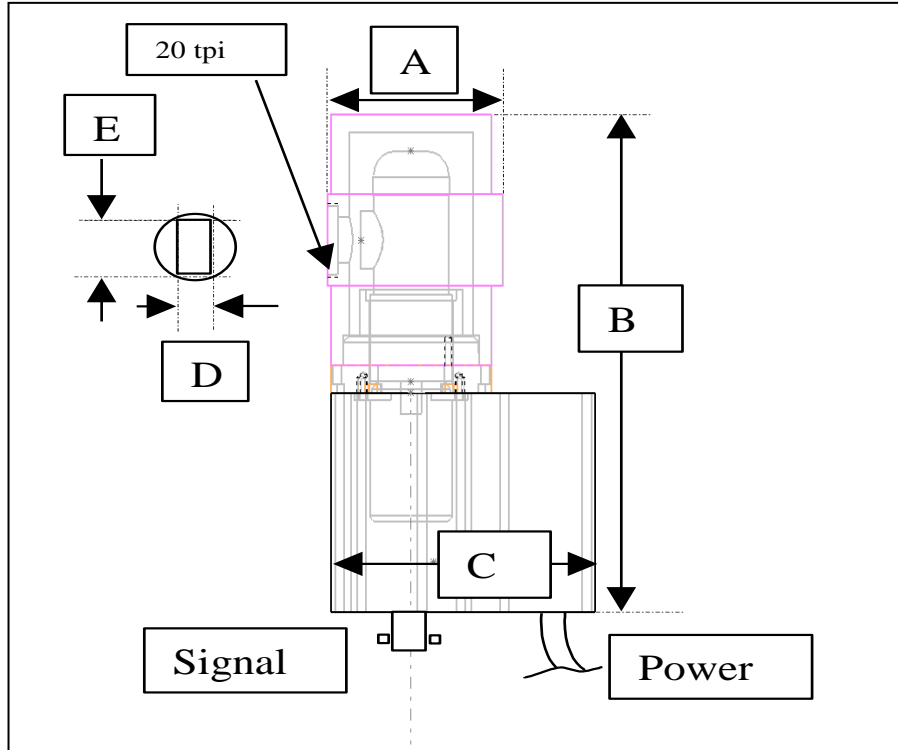
| specification | Minimum | Typical | maximum | units |
|--------------------------------|---------|-----------------------|---------|-------|
| Anode Supply Voltage | 400 | 1000 | 1250 | Vdc |
| Spectral Response | 115 | 130-260 | 290 | nm |
| Peak wavelength | - | 230 | - | nm |
| Photo-cathode area | - | 1.4 h x 0.8 w | - | cm. |
| Peak Anode current | - | - | 1,000 | uA |
| Average Anode current | - | - | 100 | uA |
| Luminous sensitivity | - | Solar blind | - | uA/lm |
| Radiant sensitivity for 127 nm | 15 | 3.5 | 30 | mA/W |
| Radiant sensitivity for 230 nm | - | 25 | 0.01 | mA/W |
| Radiant sensitivity at 350 nm | - | <.05 | - | mA/W |
| Temperature range | 10 | - | 45 | ° C |
| Current amplification | - | 1.2 x 10 ⁶ | - | |
| Dark Current after 30 min | - | 1 | - | nA |

| Nomenclature | Description | Connector type |
|---------------|-----------------------|------------------------|
| Power | 120 V AC 50 or 50 hz | Cord and plug supplied |
| Signal output | Output signal current | BNC type |

| Dimension | (See diagram on next page) | Value | Unit |
|-----------|----------------------------|--------------------|--------|
| A | Max. housing dia. | 2.75 | Inches |
| B | Max. height | 6.5 | Inches |
| C | Bottom housing width | 4.5 | Inches |
| D | Cathode width | 0.8 | cm. |
| E | Cathode height | 1.4 | cm. |
| F | Bottom housing depth | 3.5 | Inches |
| Materials | | | |
| Window | | Magnesium Fluoride | |
| Body | | Aluminum | |

| | | |
|-----------------|--|-----------------|
| Vacuum Adapters | | Stainless Steel |
|-----------------|--|-----------------|

Mechanical Layout:



Resonance CsI PMT -Typical VUV Response curves

Response in milliamps per watt

