Always been a leader in Photonic Device performance, Hamamatsu has now developed a PMT with a quantum efficiency (QE) of 43%. In all kinds of high-precision light measurements, high sensitivity and high QE are absolutely essential elements in extending detection limits and unlocking new knowledge. For Hamamatsu, however, this 43% QE is just one more step along the road. Aiming for the peak of PMT performance will open up all kinds of new possibilities.
**UBA (Ultra Bialkali), SBA (Super Bialkali) PHOTOMULTIPLIER TUBE SERIES**

<table>
<thead>
<tr>
<th>Type No.</th>
<th>Type</th>
<th>Outline No.</th>
<th>Suitable Socket / Outline No.</th>
<th>Quantum Efficiency</th>
<th>Dynode Structure / Stage</th>
<th>Socket</th>
<th>Maximum Ratings</th>
<th>Anode to Cathode Supply Voltage (V)</th>
<th>Anode to Cathode Voltage (V)</th>
<th>Average Anode Current (mA)</th>
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</table>

**Notes**
- A: Photocathode: Bialkali, Window Material: Borosilicate glass
- B: MC: Metal channel  B+L: Box and linear-focused
- C: Operating ambient temperature range for the photomultiplier itself is -30 °C to +50 °C.
  However, when photomultiplier tubes are operated below -30 °C at their base section, please consult us in advance.
- D: Average over any interval of 30 seconds maximum.
Hamamatsu Tops Its Own Super Bialkali Photocathode!

The concept "Takumi" is a traditional quality and skill of the Japanese craftsman. This term is given to those who pour their whole spirit into creating an object. Gripped by this "Takumi" spirit for long years, Hamamatsu has succeeded in making a PMT bialkali photocathode with a quantum efficiency (QE) of 43%. Holding on to this "Takumi" spirit will help Hamamatsu continually push the PMT to still higher performance levels. Aiming for the ultimate in PMT performance will open up all kinds of new possibilities.

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</table>
UBA (Ultra Bialkali), SBA (Super Bialkali) PHOTOMULTIPLIER TUBE SERIES

**BASING DIAGRAM SYMBOLS**

All base diagrams show terminals viewed from the base end of the tube. Each symbol used in basing diagrams signifies the following.

- **DY**: Dynode
- **IC**: Internal Connection
- **NC**: No connection (Do not use.)
- **P**: Anode
- **SH**: Shield
- **G(F)**: Grid (Focusing electrode)
- **ACC**: Accelerating electrode
- **K**: Photocathode
- **IC (Dy10)**: Internal connection (Do not use.)
- **How to read**: _Flying Lead Key_ is written on the key for each pin.

---

**TO-8 Metal Package Type**

**R9880U-110**

- **PHOTOCATHODE**: 12.4 ± 0.4
- **GUIDE MARK**: 4.6 ± 0.8
- **INSULATION COVER**: 12.4 ± 0.4

---

**30 mm Metal Package Type**

**R7600U-100/-200**

- **PHOTOCATHODE**: 22.0 ± 0.5
- **INSULATION COVER**: 12.0 ± 0.5

---

**2 × 2 Multianode Type**

**R7600U-100-M4/-200-M4**

- **PHOTOCATHODE**: 22.0 ± 0.5
- **INSULATION COVER**: 12.0 ± 0.5
D-TYPE SOCKET ASSEMBLIES

1. **E10679**
   - For R9880U-110
   - Diagram shows connections and components, including PMT, SIGNAL OUTPUT, POWER SUPPLY, GND, and SHIELD CABLE.

2. **E5996**
   - For R7600U-100/-200
   - Similar to E10679, with additional markings for R1 to R3, R4 to R11, R12 to R14, and R15.

3. **E7083**
   - For R7600U-100-M4/-200-M4
   - Shows P1 to P4, SIGNAL OUTPUT, COAXIAL CABLE, and additional R1 to R10, C1 to C3.

4. **E990-29**
   - For R3998-100-02
   - Similar to E7083, with R1 to R10, C1 to C3, and additional R11 to C2.

---

UBA (Ultra Bialkali), SBA (Super Bialkali) PHOTOMULTIPLIER TUBE SERIES

- **E10679** for R9880U-110
- **E5996** for R7600U-100/-200
- **E7083** for R7600U-100-M4/-200-M4
- **E990-29** for R3998-100-02

Downloaded from Elcodis.com electronic components distributor
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Photomultiplier Tubes
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Microfocus X-ray Sources
Image Intensifiers
X-ray Image Intensifiers
Microchannel Plates
Fiber Optic Plates

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Si Photodiodes
Photo IC
PSD
InGaAs PIN Photodiodes
Compound Semiconductor Photosensors
Image sensors
Light Emitting Diodes
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Quality, technology, and service are part of every product.