



## **WESTON PHOTOCCELL Model 856**

### **Manufactured from 1948, USA**

The Bakelite-cased Photronic Cell Model 594 was a well-established component from 1933 in the Weston Electrical Instrument catalogue and lay at the centre of myriad systems designs and developments in industrial, scientific and educational environments worldwide. In 1948 Weston introduced the model 856.

Instead of a Bakelite housing, the cell was encased in a hermetically sealed steel capsule. Clearly a ruggedized design for use in hostile environments, the casing is crimped over a specially made cover glass metallized around the edges. The case is soldered to the glass cover and filled with helium. Glass beads are used to seal the two connections to the cell.

As can be seen above, the connections emerge from the rear along with robust mounting threads, unlike the model 594 with its side pins. Whilst the side-pin configuration of the 594 may have been convenient for connection and experimental use, the protrusion of the cell above a base unit would have made it vulnerable to damage in a physical environment. Not so the 856 which could have been secured easily in a protective housing.

Close inspection of the glass face of the 856 cell reveals an engraving on the inside of the glass at its centre: This is of the logo that Weston used at the time which consists of a 'W' placed over an 'I' (for Weston Instrument) placed withing the characteristic fan-shape of one of the company's first landmark precision ammeters. This engraving appears on some other cells during this period, but not many.

(cont.)



The fan shaped Weston Instrument logo engraved on the inner glass surface of the 856 cell.

The introduction of the type 856 cell is covered in Weston Engineering Notes, Volume 3 Number 5, October 1948