

High Voltage Counter Timer (HVCT) Model 7709

The IAP 7709 high voltage counter timer system is used to count Geiger-Muller detector output pulses. This system has a high voltage supply, which is used for Geiger-Muller detector bias.

System Menu

The HVCT 7709 has a 20×4 character LCD and displays the below information (for example):

- HV: 320V
- Set time: 123 Sec
- Real time: 123 Sec
- Count: 340000

Description

Set time: Display the time set by the user

Real time: Display the last time from the beginning of the counting

Counter: Display the count of the system

HV: Display the value of the detector voltage

Control inputs

- Keyboard: The keypad contains a set of keys for setting the counting time.
 - UP Key: time increases one time units with each time key press
 - Down Key: time decrease one time units with each time key press
 - Start: The start key is the press key that is installed on the front of the system. Pressing the start key, the system put in the count mode, and turn on the red LED in front of it. Pressing it again, it stops counting, turn the LED off and display counting at this moment. If pressed again, continues counting until the end of SET TIME.
 - Reset: By pressing this key, the value of time and count is zero.
- HV: 10 turn potentiometer, adjustment in the range of 0-1000 V with an accuracy of ± 5 V

- Int/Ext: This key is the two positions that is installed behind the device. When this key is in the internal position, the output pulse from a Geiger-Müller is counted. If this key is placed in the external mode, the system counts the pulses applied to the Ext.Count input.
- Ext.Start: It is a BNC connector that is mounted behind the system for counting pulse with maximum + 6 V.
- Ext.Stop: The Ext.Stop is a BNC connector that is mounted behind the system for stopping counting pulse with maximum + 6 V.
- Input: G-M: A BNC connector on the front of the system for detector power
- Outputs
 - Window: It is a BNC connector on the back of the system that its voltage is +3.3 V and + 0 V in active and inactive state, respectively.
 - G-M Pulse: It is a BNC connector on the back of the system.
 - HV: It is a BNC connector on the back of the system, the amount of adjustable voltage is accessible on this connector.