

Timed Counter



- COUNTS INPUT PULSES OVER A SELECTED PERIOD OF TIME
- LARGE 3-DIGIT LED DISPLAY
- 0-9.99V ANALOG OUTPUT PROPORTIONAL TO THE DISPLAYED COUNT (10mV/COUNT)
- BUILT-IN POWER SUPPLY

Our **Timed Counter** is designed for experiments where a count of events occurring over a selected time period is required. The instrument's digital events counter totals the number of input TTL pulses occurring after a trigger input over a selected period set on the INTERVAL switch. A typical application, for example, would be counting spike activity for a given period of time following electrical or chemical stimulation.

The count is presented on a three-digit LED display and is held until the Counter is reset, either manually or by means of an external reset pulse. The timed counting periods can be one of ten in the range of 10mSec-10Sec, or the Counter can be set to count continuously. An enable input allows counting to be stopped at any time during the timed period.

The Timed Counter includes an over range LED which illuminates when the count exceeds 999. The unit is line powered and can be used on a bench or conveniently rack mounted.

SPECIFICATIONS

- Inputs:** All TTL compatible (+5V)
Input: 3-decade counter totals input pulses
Trigger: Timed counting period begins on leading edge of trigger pulse
Reset: Counter is reset to zero on leading edge of reset pulse
Enable: Counter is enabled when this input is at TTL logical 1 or open (normal operation), disabled when at TTL logical 0 (ground)
Timing Periods: 10mSec, 20, 50, 100, 200, 500, 1Sec, 2, 5, 10, continuous

- Output:** 0 - 9.99V, in 10mV/count increments
Power Requirements: 115/230V, 50-60Hz, switch selectable
Dimensions: 2 3/4"w x 7"h x 9d" (7 x 17.8 x 22.9cm), 4 lb. (1.8 kg.)

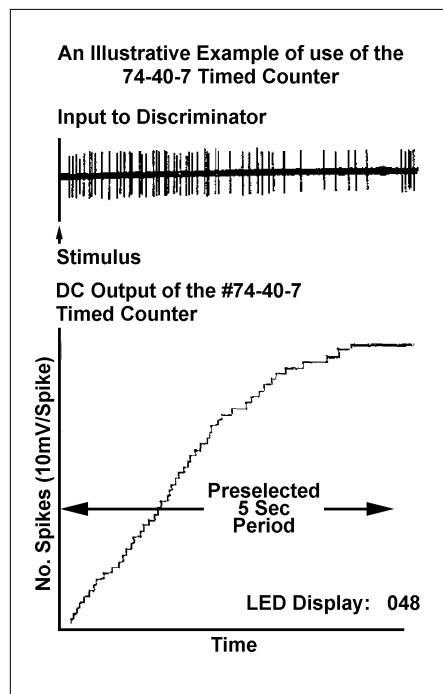
CONTROLS / CONNECTORS — Front Panel

- Interval:** 11-position rotary switch
Reset (manual): pushbutton switch
Display: 3 digit LED
Power: Toggle switch for activating line power, LED illuminates
Input: BNC connector. Input TTL pulses to be counted
Trigger: BNC connector. Leading edge of applied TTL trigger pulse begins timing interval
Enable: BNC connector. Terminate counting by applying TTL LOW pulse to this connector. If no connection is made to this input, module assumes the TTL HIGH
Reset (ext): BNC connector. TTL pulse to this input resets counter to zero (000)
Output: BNC connector. DC voltage proportional to displayed count. LED illuminated if count exceeds 999

OPERATIONAL DESCRIPTION

The Timed Counter totals the number of input TTL pulses occurring after a trigger input over a switch-selected period of time. The count is displayed on a three-digit LED display and is held until the Counter is reset, either manually or by means of an external reset pulse. An enable input allows counting to be stopped at any time during the timed period. An LED indicates when >999 events have been counted for the selected interval.

A digital to analog converter generates a 0 - 9.99V output signal that is proportional to the displayed count.



ORDERING INFORMATION

74-40-7 Timed Counter with DC Output