



**BAK ELECTRONICS, INC. *Biomedical Instrumentation***

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## *Digital Timer Counter*

### **Model DTC-1**



3-DECADE DISPLAY, 4-DECADE RANGE SWITCHING

GATED AND TRIGGERED MODES

REAR I/O BCD OUTPUTS

SIMULTANEOUSLY COUNTS EVENTS AS IT MEASURES LATENCIES

NEW AUTO RESET MODE

### ***Description:***

The Model DTC- 1 is an instrument for simultaneously keeping a stored record of the duration of a sequence and the number of events during a sequence. A single three digit LED display will read out either elapsed time or the number of events that occurred during the elapsed time depending on the position of the switch labeled " EVENTS-TIME" respectively.

While events may be recorded over any specified time period, the timer has four selectable ranges from 9.99 milliseconds to 9.99 seconds. There are three means of resetting the Model DTC-1: (1) internal power-on reset, (2) manual and (3) digital. The digital reset is intended primarily for completely ON-LINE data acquisition. The inputs labeled" START" and "STOP" as they imply, initiate and end a timer and event count cycle. The input labeled" GATE" will allow a time count or event count for the entire time period of the gate pulse irrespective of the stop pulse and subject only to a reset.

Unlike the GATE input, the START input will not initiate a new data cycle after a STOP input has occurred until a reset is effected to insure that the data available has been retrieved. All input have minimal electrical requirements compatible with TTL, that being 0.8 volts maximum low level and approximately 3 volts minimum high level. All outputs at the rear I/O connector are TTL compatible and have an output drive of 5 TTL UL.

The AUTO reset mode of the DTC- 1 allows the unit to be used as an event counter within specific time bins. The rotary time decade switch becomes a time bin period selector. It allows events to be counted for specific

time periods of 10 msec, 100 msec, 1 Sec and 10 seconds. The event counter is then reset to zero and the process is repeated.

## ***Specifications:***

Input Impedance . . . . .	Less than 1 TTL UL
Input Coupling . . . . .	DC
Input Voltage Range . . . . .	TTL compatible (Zener protected)
Maximum Event Count . . . . .	999
Timer Ranges . . . . .	9.99ms, 99.9ms, 999ms and 9.99 Sec
Output Data . . . . .	BCD coded for both time and events
Output Drive . . . . .	5 TTL UL via edge-card
Power Requirements . . . . .	+5 volts @ 250 ma supplied by the Model RP-1
Size . . . . .	2.8"w x 5.25"h x 7.25"d
Weight . . . . .	1 lb.

## ***Other Bak equipment frequently used with DTC-1:***

DDIS-1	Dual Window Discriminator
DIS-1	Window Discriminator
DD-1	Digital Delay

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