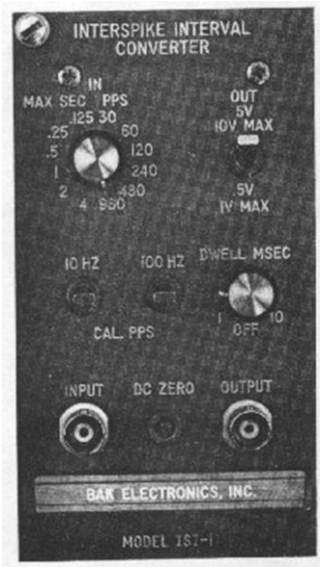
INTERSPIKE INTERVAL CONVERTER

Model ISI-1



TRUE "I/T" GENERATOR

12 BIT ACCURACY

INTERNAL 10 Hz and 100 Hz CALIBRATORS

CONTINUOUS OR PULSED OUTPUT

TWO OUTPUT RANGES

SIX OUTPUT SENSITIVITY RANGES

Description:

The Model ISI-1 is a true linear interspike interval to voltage converter with two modes of operation, continuous output or pulsed output. In the continuous mode, the output level remains constant until the next input signal. In the pulse mode, the output delivers pulses which are adjustable from 1 to 10 milliseconds. These two modes of operations are useful in biofeedback and time amplitude histogram applications respectively. The output amplitude in both modes of operation is directly proportional to the interspike interval, i.e. Vout= l/T X (constant) where T equals the interspike interval time. A six position front panel frequency/time range switch allows calibrated scaling of the output levels for maximum resolution of expected interspike interval times. Two switches are available on the front panel which calibrate the output for either 10 Hz and 100 Hz frequencies while disabling the input. Both the 10 Hz and 100Hz oscillators are contained within the Model ISI-1. A panel mounted (DC zero) potentiometer allows the output to be calibrated with respect to zero hertz input. A front panel switch is provided for scaling the output to a 10 volt maximum output level or to a 1 volt maximum output level, the latter being a useful range for various types of analog recorders. The Model IS 1-1 is of modular construction and receives its power from the Model RP-1 power supply and rack mount module cage system.

Specifications:

Input Resistance	10 kilohms
Input Coupling	DC
Input Dynamic Range	2.0-30 volts
Input Pulse Width	5 microseconds minimum
Output Range	0-10 milliseconds adjustable
Interspike Interval Range	4 seconds down to 500 microseconds
Precision	5% max error at selected PPS range, down to .03% at selected MAX SEC interval
Power Requirements	+5 volt @ 30 ma, +/-15 volts @ 25 ma
Size	2.8"w x 5.25"h x 7.25"d
Weight	1lb.

Options:

Option (1) The analog representation of input frequency is achieved viaa D to A converter, the input binary bits of which can be made available at the rear I/ connector. Price Class D

Other BAK Equipment Frequently used with the ISI-1:

DDIS-1 Dual Window Discriminator
DSI-1 Window Discriminator
RG-1 Raster Stepper

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