⁶ Specification

Section 2

DISPLAY

TC11 Four in line numerical indicators. TC12 Five in line numerical indicators.

FREQUENCY MEASUREMENT

2Hz to at least 15MHz via input A. GATE TIMES TC11 0.1mS to 1S. TC12 0.1mS to 10S. Selected in decade steps.

TIME MEASUREMENTS

TIME UNITS TC11 10µS to 1S. TC12 10µS to 10S. Selected in decade steps.

Start and Stop inputs can be A to A, B to B and B to C or by push button. Time A to A (equivalent to single period) is the time interval between successive negative going signals at input A.

MULTIPLE PERIOD

From 10 to 10⁵ periods selected in decade steps over the frequency range of 2Hz to at least 100kHz via input A. Operates from positive going signals.

COUNT MODE

2Hz to at least 15MHz via input A with start and stop controls via inputs B to B, B to C or manually by push button control.

ACCURACY

FREQUENCY TIME AND PERIOD <u>+1</u> count <u>+accuracy</u> of standard <u>+</u> trigger point error. COUNT Absolute, but <u>+1</u> count when the gate is operated.

FREQUENCY STANDARD

INTERNAL 100kHz crystal oscillator set to 1 part in 10^5 at room temperature. Stability ± 6 parts in 10^5 over the temperature range 0 to $\pm 50^{\circ}$ C; typically ± 3 parts in 10^5 from ± 10 to $\pm 40^{\circ}$ C. EXTERNAL Sinusoidal signal 10kHz to 2MHz, 0.5V to 10V RMS or a suitable pulse source from 10Hz to 2MHz, 1V to 20V peak to peak. NB Use of other than 100kHz standard will change the scale of measurement, e.g. frequency ratio may be measured.

INPUT A

SENSITIVITY 10mV, 100mV and 1V RMS selected by a three position switched attenuator (2Hz to 15MHz)

MAXIMUM INPUT 250V RMS (DC to 20kHz) on all attenuator positions. 3V RMS on 10mV position, 30V RMS on 100mV and 1V positions at frequencies above 20kHz.

INPUT IMPEDANCE $1M\Omega$ in parallel with 18pF(suitable for use with an oscilloscope probe). In 10 mVposition protective limiting causes the impedance to drop to $200k\Omega$, 120pF with signal levels over 1V RMS.

INPUTS B AND C

SENSITIVITY 1V peak negative going, fall time between 1 and 100nS Maximum input ±3V peak, capacitive coupled.

(Operative on time and count functions only).

RESET INPUT

Operates from a contact to ground; open circuit voltage +18V maximum, short circuit current 15mA maximum. Alternatively a negative going pulse of between 6V and 20V and at least 1mS duration; the positive levels should lie between 0 and +20V.

CHECK FACILITY

The 100kHz standard is counted for the gate time selected.

DISPLAY TIME

Continuously variable from less than 0.1S to at least 4S with switched hold position and manual or external reset.

DATA OUTPUT

The display data is available from pins on the printed circuit board. (Format is 8421 BCD positive going, negative true. Outputs are high impedance unbuffered).

POWER SUPPLY REQUIREMENTS 100 to 125V or 200 to 250V, 45 to 65Hz, Consumption 25VA.

TEMPERATURE RANGE 0 to +50°C

ACCESSORIES SUPPLIED

One 50Ω BNC connector, Part No. 1166. One miniature Jack plug (for external standard) Part No. 2127 Four (4) mm plugs, Part No. 1244 Instruction Manual, Part No. 25884

DIMENSIONS AND WEIGHT

11¹/₂" (29.3cm) wide, $5\frac{3}{4}$ " (14.6cm)high, $9\frac{7}{8}$ "(25cm) deep overall, 10.5 lb (4.8kg)