M170
Countdown/Up Generator Clock

The M170 is a highly versatile Multi-Purpose Clock & Countdown/Up Generator designed for any application where count down or up is essential, such as range timing and event time management.

Features

- Maintains a count of time in hours through to tenths of a second
- Start time preset by front panel switches at switch-on, or operator entry
- Hold resolution 0.1 second

Key Benefits

The count time can be stopped and started by the operator or by remote control.

The M170 Generator has an RS232 / RS422 serial interface which automatically outputs the Generator count time with sign, direction and run/hold status once per second.

'Countdown' signifies that the time display on instrument and the output count is negative and decreases (counts towards zero) when the count runs.

After the count passes through zero the negative sign changes to positive and the count increases.

In both cases to move to the next count the instrument simply adds 0.1s to the current count.

M170 Specifications

General

Status Indicators: Power, 1PPS & 10MHz ref inputs

Mechanical: 19inch rack mount, 1U high (45mm), 305mm deep

Alarm status: Voltage free contacts from status monitor changeover relay

Power: 85Vrms to 264Vrms at 47 – 400Hz

Operating Temp: -10ºC to +50ºC

Humidity: 95% non-condensing

Weight: 2kg typical

EMC: CE compliant

Inputs

1PPS input: 50 Ohm BNC, 1PPS reference pulse input

10MHz input: 50 Ohm BNC, 10MHz reference frequency input

AC power input: Fused IEC inlet

Outputs included as Standard

Serial Data Interface: 9-way 'D' socket, with RS232 or RS422 interface

Alarm Output: Voltage-free contacts from status monitor changeover relay

Remote Control: 5-pin Din connector: Remote RUN, HOLD, ENTER and COMMON

Optional Additional Outputs

Output options: 1PPS, Modulated Timecode (IRIG-B, PSEUDO IRIG, NASA36, AFNOR with 1kHz carrier)

Oscillator Options

Standard oscillator: TCXO, better than 120 µs per hour

Optional: OCXO, better than 10 µs per hour

HPOCXO, better than 1µs per hour

Front panel / Controls

Time Entry: +HHMMSS.S by push-button coded switches

Max. Time Entry: +99 hours 99 minutes 99.9 seconds

Min. Time Entry: -99 hours 99 minutes 99.9 seconds

Display: One-line 20 character alphanumeric backlit LCD display 0.37" high characters

Push-buttons: ENTER (yellow) HOLD (red) RUN (green) each with back-light on operation

Mechnical

19 inch rack mounting 1U high 350mm deep.

Environmental

Operating Temperature: 0°C to +50°C (please contact factory for advice outside this range)

Storage Temperature: -5°C to +60°C

Humidity: up to 95% RH (non-condensing)