

# **CP 4-TR** Digital Chronometer

- Breaker timing &
  sychronisation testing
- Accurate
- User friendly
- Designed for use in High Voltage sub-stations
- Four timing inputs
- Integrated breaker Control
- Resolution 0.1 msecs.

### APPLICATION

The CP 4 is an easy to use digital chronometer for measuring breaker sychronisation, including main contact opening and closing times.

The sequences incorporated into the software program enable rapid testing of a breaker with the resulting report displayed on the screen or printed by the built-in printer. There are two separate contacts for closing or opening the breaker, and the standard sequences include Open, Close, Close-Open and Open-Close-Open.

There are four independant isolated contacts for time measurement which can be configured as Volt-Free or Volts Detection The system is powered from the mains, (230 Vac +/- 10% + earth).

There are 12 & 16 channel versions.



#### SPECIFICATION

Rugged housing with carrying handle dimensions 32 x 17.5 x 26 cm Weight 7 kg. Four 4 mm banana-plug inputs for time measurement which are configurable as Voltage-Free or Voltage-Detection (5 - 250 Vdc or 24 - Vac). DEL which indicates the input state. Simple Earth/Ground connection Accuracy 0.02% of time value +/- 0.1 ms. Resolution 0.1 ms. Rapid showing of time & sychronisation of all cycles. **Breaker Control** Two separate contacts to Open or Close the breaker. Coil current up to 20 A @ 250 Vac/dc Open or Close in 0.1 ms. Pulse delay 1 ms to 1 sec.

### Memory

Memorises over 100 complete measurement results. These can be of up to 9 timings over 3 cycles i.e. 3 manoeuvers of 3 sets of contacts.

### Printer

In-built for printing test reports immediately.

### Options

**Carrying Case** with space for the accessories. Size 51.5 x 45 x 32.5 cm.

**Cable Kit** 4 x 15m. Cables for connecting to main contacts. A 3-core cable for connection to the breaker control.

**Software** CP-MICRO-ACQ for editing test reports. Same database as the Micro 200 software.

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## **CP 12-TR** Digital Chronometer



This version of the CP has **12 channels** for testing multi-contact breakers. Only a little larger than the CP 4, this instrument is easily portable and can be used whilst remaining in it's carrying case. Operation is by a simple scolling menu with the same choice of operating cycles as the CP 4, and the printer incorporated gives full information on operating times and synchronisation separations.

The specification size of the CP 12 is as for the CP 4 except that the size is 51 x 31 x 15 cm., and weight 9 kg.

A choice of cable kits is available for testing breakers with two or three sets of contacts per phase.

An IP 54 wheeled transport case is available with ample storage space for long cables.

A 16 channel version is also avalable