



9780 Clamp Meter Adaptor

Time Electronics

Calibration, Test & Measurement

- Twin coils fitted as standard
- Ratios 1:1 and 50:1
- Primary current up to 22A
- Simulated current up to 1100A
- AC or DC
- Frequency up to 90Hz
- Max drive voltage 3V
- Low resistance test leads included



The Time Electronics 9780 precision clamp meter adaptor is built onto a solid quality 20mm thick high insulation base plate; the twin coils are potted into a recess on the top side of the base, forming a strong bond. The foam protective mat allows accurate positioning of the clamp meter being calibrated.

Three heavy duty terminal posts with removable caps provide connection to the clamp adaptor, the black centre post is the common connection and the two red posts allow selection of the X1 or X50 turn coils.



The quality low resistance test lead set supplied is made of multi strand (735/0.12mm) oxygen free copper and is terminated with 8AWG gold plated ring and plug terminals.

When used in conjunction with a high current multi-function calibrator such as the Time Electronics 5051 or 5025 (available separately), clamp calibration up to 1100A is possible.



Two coil options are available, firstly a 1:1 coil (X1) i.e. 10 amps in, 10 amps out and secondly a specially designed 50 turn coil (X50) which gives 1:50 i.e. 10 amps in, 500 amps out.

9780 Technical Specifications

The 9780 is a precision adaptor for use with calibrated AC or DC sources and allows accurate calibration of a wide range of clamp meters.

Two current loops are provided; a 1 to 1 ratio and the high range a 50 to 1 ratio.

The maximum allowed primary current is 22A RMS. The frequency range is 45—90 Hz.

The series resistance of the 50 turn coil is approximately 0.11Ω and the inductance is 1mH. The resistance of the 1 turn coil is approximately 1mΩ.

The 9780 is rated for continuous operation at 10amps. At 22 amps the duty cycle should be a maximum of 3 minutes on and 6 minutes off.

When used with older style clamp meters where substantial operating power is required it should be noted that additional power will be required from the current source. For example a 1000amp Ferranti clamp on ammeter will require at least 50% more power from the current source.

This will require increased power transfer through the clamp meter adaptor and therefore the on to off time should be increased to 1 to 10 ie 1 minute on and 10 minutes off.

SPEC 0 TO 22 AMPS TRANSFER RATIO 50 TO 1 OR 1 TO 1

Calibrator	O/P Frequency	Amp Turns	Accuracy (% of O/P)	plus Floor (Amps)
0.2A to 2.2A	DC	10 - 110	0.5	0.05
2.2A to 22A	DC	110 - 1100	0.5	0.15
0.2A to 2.2A	45-65 Hz	10 - 110	0.5	0.2
0.2A to 2.2A	65-90 Hz	10 - 110	1	0.25
2.2A to 22A	45-65 Hz	110 - 1100	0.5	0.7
2.2A to 22A	65-90 Hz	110 - 1100	1	0.9

The coils are rated for continuous use at 10A.
At 22A the duty cycle is 3 mins on and 6 mins off.

Max drive voltage is 3Vdc or 3V rms ac.

The above specification applies for use with general purpose clamp meters such as the Fluke 801-1000 or LEM LH1020.

General Specification

Dimensions: 240W X 280D X 85H mm

Weight: 3.9Kg

Ordering Information

Code	Description
9780	Clamp Meter Adaptor

Due to continuous development Time Electronics reserves the right to change specifications without prior notice.



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