

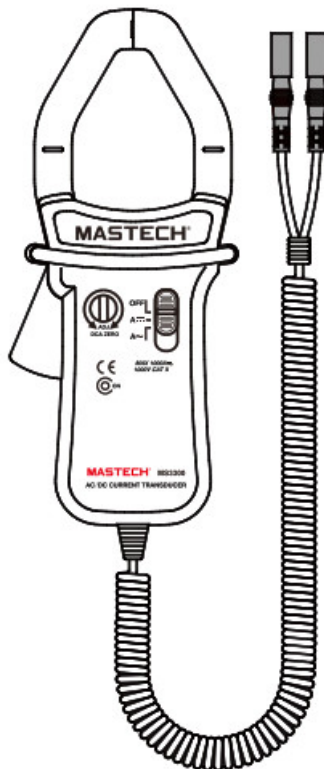


MASTECH Digital Clamp Transducer User Manual

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MASTECH®

MS3300 DIGITAL CLAMP TRANSDUCER User's Manual





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Safety Information

The AC/DC current transducer has been designed according to IEC-61010 and IEC-61010-2-032 concerning safety requirements for electrical measuring instruments and hand-held current clamps with an overvoltage category (CAT II) and pollution 2.

Follow all introductions and operating requirements to insure that AC/DC current transducer is used safely and is kept in good operating condition.

1. Symbols

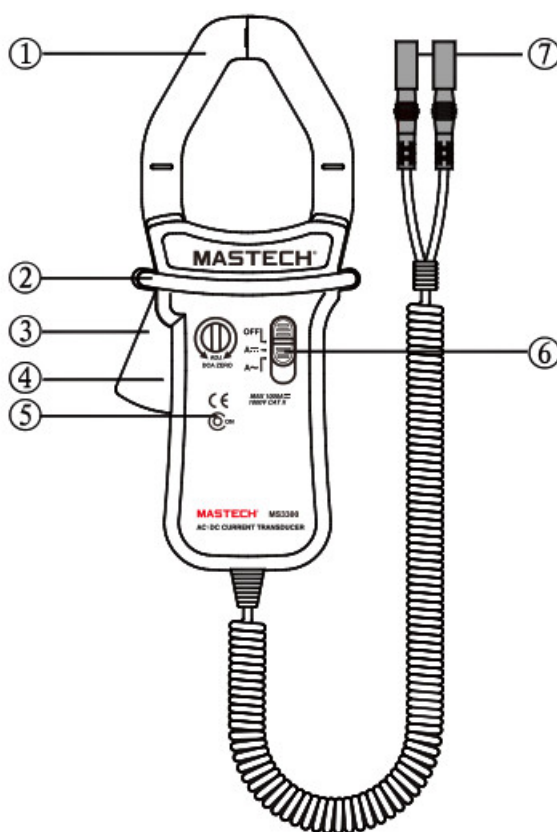
	Important safety information, refer to the operating manual.
	Double insulation (Protection classII)

CAT II: MEASUREMENT CATEGORY II is applicable to test and measuring circuits connected directly to utilization points (socket outlets and similar points) of the low-voltage MAINS installation.

Description

Refer to the Figure 1. And to the following numbered steps to familiarize yourself with the AC/DC current transducer

1	Transformer Jaws Designed to pick up the ac. or dc current following through the conductor.
2	Hand Guard Designed to protect user for safety.
3	Trigger Press the lever to open the transformer jaws.
4	DCA ZERO Adjusting the DCA ZERO knob, when the display is not zero reading for doesn't measurement before.
5	Power On indication
6	Function Switch Select the ac or dc current.
7	Output Plugs



Specifications

Accuracy is specified for a period of one year after calibration and at 18°C to 28°C (64°F to 82°F) with relative humidity to 80. Accuracy specifications are given as: tof reading digits

1. General

DC CURRENT RANGE: 1A dc to 1000A dc. AC CURRENT RANGE: 1A ac to 1000A ac. RMS

OUTPUT VOLTAGE: 1 mV dc. per 1 A dc or 1 A ac.

WORKING VOLTAGE:

1000V CAT II Per IEC-61010-1

MAXIMUM ALTITUDE: 2000m

OPERATING TEMPERATURE:

0°C to 40°C 80 relative humidity

STORAGE TEMPERATURE:

-10°C to 50°C TEMPERATURE COEFFICIENT:

0.2x(Spec Acc'y) /°C <18°C or>28°C

MAXIMUM JAW OPENING: 55mm

SIZE: 256x104x47

WEIGHT: Approx. 520g



This instrument must not be used on uninsulated conductors at a voltage greater than 250 ac rms. or 250 v dc

2. Electrical specification dc current DC Current

Range	Measure	Output	Accuracy
	1000A	1000mV	±3.0%±5

Overload Protection: 1200A for 60 seconds maximum.

AC Current

Range	Measure	Output	Accuracy
A~	1000A	1000mV	3.0%±5

Overload Protection:

1200A for 60 seconds maximum.

Frequency range: 50Hz to 60Hz.

Precaution and Preparations for Measurement

1	Do not apply the voltage to the output plugs of AC/DC current transducer.
2	Do not use or store this instrument in a high temperature or high humidity environment and do not store the unit in direct sunlight.
3	Do not measure current before the AC/DC current transducer is not combined with DMM.



Using this appliance in an environment with a strong radiated radio-frequency electromagnetic field (approximately 3V/m) may influence its measuring accuracy. The measuring result can be strongly deviating from the actual value.

DC Current Measurement

1	Set the AC/DC current transducer function switch at desired A position.
2	Set a DMM at DCV function and a relevant range.
3	Connect the output plug of AC/DC current transducer with a DMM and combined firmly.
4	Adjusting the DCA ZERO knob until the DMM display show "0", when does not measurement before.
5	Press the trigger to open transformer jaws and clamp one conductor only, making sure that the jaws are firmly closed around the conductor.
6	Read the reading on the LCD display of DMM along with the polarity of the red lead connection.

AC Current Measurement

1	Set the AC/DC current transducer function switch at desired A~ position.
2	Set a DMM at DCV function and a relevant range.
3	Connect the output plug of AC/DC current transducer with a DMM and combined firmly
4	Press the trigger to open transformer jaws and clamp one conductor only, making sure that the jaws are firmly closed around the conductor
5	Read the reading from the digital display of the DMM.

Maintenance

To keep the instrument clean, wipe the case with a damp cloth and detergent, do not use abrasives or solvents. Any adjustment, maintenance and repair shall be conducted by service personnel.

Accessories


- Operator's instruction manual
- Gift box
- 9 volt battery. NEDA 1604 6F22 OO6P type

Replacing The Batteries



WARNING

To avoid electric shock, make sure that the test leads have been clearly moved away from the circuit under measurement before opening the battery cover of the meter.

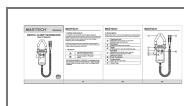
1. If the sign " " appears, it means that the batteries should be replaced.
2. Loosen the fixing screw of the battery cover and remove it.
3. Replace the exhausted batteries with new ones.
4. Put the battery cover back and fix it again to its origin form.

Note:

Do not reverse the polarity of the batteries.



Documents / Resources



[MASTECH Digital Clamp Transducer](#) [pdf] User Manual
Digital Clamp Transducer, ms3300