

Fact sheet of the interlaboratory comparison:

Calibration of a multimeter

CT2M (Mediterranean Technological Center of Metrology) organizes in 2018 an European interlaboratory comparison for the calibration of multimeter. You are a calibration laboratory or a test laboratory performing its internal calibration: this inter-laboratory comparison is organized for you!

Context and objectives:

- ✓ Determine your performance by positioning yourself relative to others,
- ✓ Ensure the quality of your calibration results,
- ✓ Meet the normative and accreditation requirements,
- ✓ Validate your calibration method.

CT2M commitments:

- ✓ Confidentiality of results, protection of anonymity,
- ✓ Organization and exploitation of results according to standards in force (ISO 17043, ISO 13528),
- ✓ Advice and support of the participating laboratories

Proficiency testing item:

The comparison is based on the calibration of a multimeter (HP 34401A).

Testing/Calibration Method(s):

Calibration method is not imposed. Internal method of participating laboratory is to be favored.

Calibration points are detailed as follows :

<i>Direct current (DC)</i>			
Instrument	Measured Quantity Instrument or Gauge	Calibration points	Méthod
Multimeter	DC VOLTAGE	10mV, 100mV, 1V, 10V, 100V, 1000V	Internal Méthode
Multimeter	DC CURRENT	10µA, 100µA, 1mA, 10mA, 100mA, 1A	Internal Méthode
Multimeter	RESISTANCE	10 Ω, 1kΩ, 10kΩ, 100 kΩ, 1MΩ, 10MΩ	Internal Méthode

<i>Alternating current (AC)</i>				
Instrument	Measured Quantity Instrument	Frequency	Calibration points	Méthod
Multimeter	AC VOLTAGE	100 Hz	10mV, 100mV, 1V, 10V, 100V, 1000V	Internal Méthode
Multimeter	AC CURRENT	100 Hz	1mA, 10mA, 100mA, 1A	Internal Méthode

The realization of all tests is not mandatory.

Organization of the proficiency testing:

Each participant will have to calibrate the multimeter. The multimeter will go from laboratory to laboratory. It will be send back periodically to a refence laboratory to ensure its stability between the calibrations. Respect of the planning that will be provide is therefore very important.

Final report:

At the end of the circuit, the results will be exploited statistically, and a final report will be sent to the participants. It will contain the results of all the participants (with codification system to respect the anonymity), the study of normality and outliers, the performance scores of the participants and all the other elements useful to the participants' interpretation.

Important dates:

Key steps	Estimated deadline
Closing date for registration	9 March 2018
Mailing of the detail procedure and the planning of the circuit	March - April 2018
Launching of the circuit	March - April 2018
Publication of the final report	Dependant on the number of participants

Participation fees: 450 € net total

This price includes the loan of the multimeter to be calibrated, the supply of the results file to be completed and the final report with exploitation of the results.

If you are interested in this proficiency testing, we invite you to complete the registration form and send it by e-mail at eil@ct2m.fr or by fax at +33 (0)4.90.50.89.63.

For further information do not hesitate to contact us.