



National
Metrology
Institute



Proficiency Test

Digital thermometer

Many laboratories participate in Proficiency Tests (PT schemes) or interlaboratory comparisons (ILC). Measurement results from multiple laboratories are anonymously compared with each other to identify any deviations. The results will give you valuable insights into your laboratory's performance, ensure and even increase your quality, can be used as a reliable tool for quality and risk management and will meet the requirements of various accreditations and ISO/IEC 17025:2017.

VSL organizes PTs under the ISO/IEC 17043:2023 accreditation with the highest care. When organizing any PT, VSL will:

- provide a suitable artifact;
- compose a test protocol;
- deliver an independent assessment report;
- provide anonymous comparison of results;
- offer metrological and quality management support at request.

Selection of participants:

Laboratories that calibrate instruments for temperature under ISO/IEC 17025 accreditation.

Registration:

Please go to our website www.vsl.nl/en/services/proficiency-testing to fill in the registration form.

Fee:

€ 1.795,00 excluding VAT

The participation fee is including shipping cost for the artifact.

Terms of payment:

Payment in advance. Invoice will be send 1 month before the start of the PT. Payment is due within 30 days after invoice date.

Schedule:

The up-to-date PT schedule can be found on our website.

Estimated number of participants:

Minimum 5 participants, maximum 10 participants.

If the number of participants remains smaller than the minimum number of participants, VSL reserves the right to cancel this PT and will contact the registered participants to offer an alternative.

Reference laboratory:

The reference values for this PT will be delivered by VSL, the National Metrology Institute for The Netherlands.

About VSL

VSL, the National Metrology Institute for The Netherlands, is a globally accredited PT provider (ISO/IEC 17043:2010, our scope reg. nr. R006).

Our independent comparisons covers a broad range of areas including pressure, mass, viscosity, temperature, electricity, length, chemical analysis, humidity and gas flow. Customers also ask VSL for advice and implementation of custom comparisons. We encompass all calibration capabilities across various technological fields listed in our extensive ISO/IEC 17025:2017 accredited calibration scope (reg.nr. K999) and our ISO 17034:2016 scope (reg. nr. P002).



For more information on VSL and our offerings, please visit our website at www.vsl.nl/en/services/proficiency-testing. Should you have any questions or wish to join our PTs, feel free to contact us.



Measurements protocol:

VSL will provide the protocol with the shipment of the artifact.
Each participant will have 2 weeks to perform the calibration.

Evaluation:

Evaluation will be done by normalised error, defined as
$$E_n = \frac{x_i - X_{ref,i}}{\sqrt{U_{ref,i}^2 + U_{stat,i}^2}}$$

Confidentiality statement:

VSL keeps all data regarding the performance of individual participants, or groups of participants, strictly confidential. Data is accordingly protected and stored in areas on networks with restricted access. The relationship between results and the laboratories that submitted them will never be disclosed. Only the laboratory is granted access to its performance through the assigned code number.

Deliverables:

VSL will deliver a test report including the anonymized measurement results of the comparison.

Information about the artifact to be circulated:

Precision Handheld Reference Thermometer;
Dostman, Model P795 with two Pt-100's, MPT-6/S L=630 mm, $\varnothing = 6$ mm

Calibration points:

Measurement of temperature in °C with a maximum tolerance of 0.1% per measurement point.

Participants may choose a subset of this range depending on their scope.

Sensor 1	Sensor 2
-80 °C	0 °C
-60 °C	+50 °C
-40 °C	+100 °C
-20 °C	+200 °C
0 °C	+300 °C
+50 °C	+400 °C

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