DAkkS Deutsche Akkreditierungsstelle D-EP-15070-01-00

Be sure. testo

Description: Proficiency testing: Gauge blocks (steel)

PT-2026-001-L

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1 Programme

A proficiency testing is carried out for calibrations of **steel gauge blocks.** The proficiency testing is realised within the scope of accreditation as a provider of proficiency testing in accordance with DIN EN ISO/IEC 17043:2023. The aim of the proficiency testing is to confirm the competence of the participating laboratories for the reported measurement uncertainties.

Steel end gauges of **tolerance class 0 in the range from 0.5 mm to 100 mm** are sent as calibration objects. The calibration objects are to be calibrated according to **VDI/VDE/DGQ 2618 3.1:2004-01.**

1.1 Confidentiality

All parties involved undertake to maintain confidentiality with regard to the information and results obtained in the course of the proficiency testing.

The results are presented in anonymised form in the final report.

1.2 Schedule / Procedure

Planned Start: Mai 2026

The proficiency testing is conducted in a ring format, with calibration being carried out in the pilot laboratory after approximately every 5 participants.

Each participant has one calendar week to carry out the calibration and to forward the calibration objects. If this is not possible, the coordinator must be informed, if possible even before the start of the proficiency testing. If necessary, the time periods will be adjusted due to delivery distances and public holidays.

The participants are responsible for an **insured and immediate forwarding** of the calibration items to the next participant or to Testo Industrial Services.

2 Realisation

2.1 Measurement characteristics

The **deviation e_c of central length from nominal length and the deviation span v** (as defined in the standard) must be determined for each gauge block.

2.2 Further

The calibrations are to be carried out by the participating laboratory.

The measurement uncertainty must be stated as an expanded measurement uncertainty in accordance with EA-4/02 M:2022 and ILAC-P14:09/2020.

2.3 Assigned values

The assigned values are determined using the weighted average of all participant results from the accredited calibration laboratories.

The mathematical basis for determining the reference value and its measurement uncertainty is based on Cox's publication[1]. An examination for outliers is carried out in advance.

If this is not possible, the assigned values are determined as a reference value measurement.

In addition, the stability of the calibration items is evaluated over the period of the proficiency testing and, if necessary, taken into account in the evaluation as a transfer uncertainty contribution.

2.4 Evaluation

The results are evaluated using the E_n-value for the assigned value. A correlation may be taken into account. An acceptable result is achieved if $|En| \leq 1.0$.

[1] Cox, M.G., The evaluation of key comparison data, Metrologia, 39 (2002), 589-595

3 Participation

3.1 Participants

This proficiency testing is primarily aimed at calibration laboratories that have or are seeking accreditation for the specified measurand.

Other laboratories can also participate as long as they calibrate according to the specified procedures, issue a report according to ISO 17025 and declare an expanded measurement uncertainty according to EA-4/02 M:2022.

3.2 Registration procedure

If interested, the laboratory will be sent an offer with the participation fees. Participation is considered binding as soon as the offer has been accepted and the order confirmation has been sent to the laboratory.

The registration deadline is enclosed with the offer.

Note: A minimum of 5 participants is expected to be required for the organisation of this proficiency testing.

4 Further information

At the end of the proficiency testing, a draft of the final report is sent to the participants to review the results and their performance evaluation.

It is planned to present the results in anonymised form to the DKD Technical Committee.

Various aspects of the proficiency testing programme may be subcontracted from time to time. In the event of subcontracting, this shall be to a competent subcontractor. The provider of proficiency tests shall be responsible for the subcontractor's work.