# INTERNATIONAL STANDARD



3611

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • MEЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

## Micrometer callipers for external measurement

Descriptors: micrometers, equipment specifications, marking, errors, instructions, parallelism, flatness, quality control.

Micromètres d'extérieur

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## **FOREWORD**

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 3611 was developed by Technical Committee ISO/TC 3, Limits and fits, and was circulated to the member bodies in December 1974.

It has been approved by the member bodies of the following countries:

Australia Hungary Romania Austria India South Africa, Rep. of Belgium Italy Sweden Bulgaria Japan Switzerland | Czechoslovakia Korea, Dem P. Rep. of Turkey Finland United Kingdom

Netherlands France New Zealand

Germany Poland

The member bodies of the following countries expressed disapproval of the document on technical grounds:

> Canada U.S.A. U.S.S.R.

## Micrometer callipers for external measurement

## 1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the most important dimensional, functional and quality characteristics of micrometer callipers for external measurement. Information concerning values for the error of measurement at any point in the measuring range and recommendations for using the instruments and testing their accuracy are given in annexes.

This International Standard applies to micrometers equipped with a screw having a lead of 0,5 or 1 mm, having a maximum range of 25 mm covering capacities up to 500 mm, and having non-removable anvils with flat measuring faces.

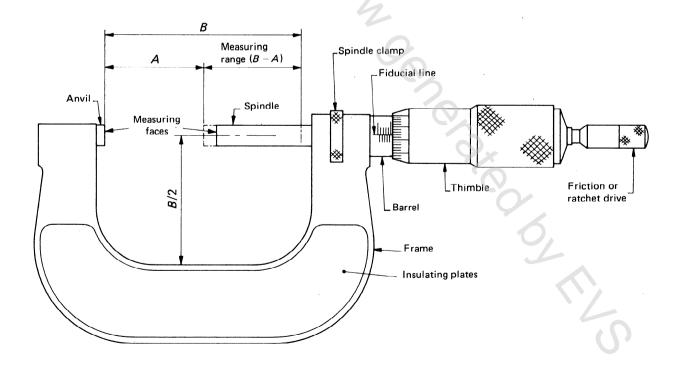
NOTE — This International Standard does not apply to digital reading micrometers but may be used for indicating desirable requirements for such micrometers where appropriate.

#### 2 REFERENCE

ISO/R 1938, ISO system of limits and fits — Part II: Inspection of plain workpieces.

## 3 NOMENCLATURE AND DEFINITIONS

- 3.1 For the nomenclature for micrometer callipers, see figure 1.
- **3.2 error of measurement:** The algebraical difference between the indicated value and the true value of the quantity measured.
- **3.3** deviation of traverse of the micrometer screw: The maximum difference between the ordinates of the curve for the deviation of the readings obtained along the complete traverse of the screw.



NOTE — The illustration is diagrammatic only and is not intended to show details of design.

 $\label{eq:figure} \textit{FIGURE 1} - \textit{Nomenclature for a micrometer calliper for external measurement}$