

BS 6365:2008



BSI Standards Publication

Specification for precision vernier depth gauges

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Summary of pages

This document comprises a front cover, an inside front cover, pages i to ii, pages 1 to 10, an inside back cover and a back cover.

Foreword

Publishing information

This British Standard is published by BSI and came into effect on 30 November 2008. It was prepared by Technical Committee TDW/4, *Technical product realization*. A list of organizations represented on this committee can be obtained on request to its secretary.

Supersession

This British Standard supersedes BS 6365:1983, which is withdrawn.

Relationship with other documents

prEN ISO 13385-2 is in preparation and covers metrological characteristics of calliper depth gauges with either analogue indication (vernier scale or circular scale) or digital indication (digital display).

Information about this document

This new edition has been fully revised to bring it up to date.

Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is "shall".

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

Introduction

The principal features of vernier depth gauges are shown in Figure 1 but details of design may vary between manufacturers. The accuracy of performance is based upon the quality and precision of the various features, e.g. the accuracy of dividing of the scales, the quality of the graduation marks, the straightness of the guiding edge of the beam, the flatness of the datum face and the measuring face. These are all features that the manufacturer controls in order that measurements made with the gauge are reliable within the tolerances specified in Clause 5.

1 Scope

This British Standard specifies requirements for the construction, accuracy at the reference temperature of 20 °C and the protection of metric and imperial precision vernier depth gauges. It applies to metric depth gauges that measure from zero up to 600 mm using a main scale and vernier scale graduated to read to 0.02 mm. It also applies to imperial depth gauges that measure from zero up to 24 in using a main scale and vernier scale graduated to read to 0.001 in.

NOTE Attention is drawn to the fact that the imperial dimensions are not necessarily direct conversions of the metric dimensions. For instance, the vernier division of 0.02 mm marked on the metric gauge corresponds to a 0.001 in vernier division on the imperial gauge, whereas the actual conversion is 0.001 in = 0.0254 mm.

Annex A gives recommended minimum dimensions for the beam section, whilst methods of testing are specified in Annex B.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS 817, *Specification for surface plates*

3 Terms and definitions

For the purposes of this British Standard the following terms and definitions apply.

NOTE The components of a precision vernier depth gauge are illustrated in Figure 1, which also gives the nomenclature.

3.1 deviation of reading

difference between the vernier depth gauge reading and the length between two surfaces, one contacted by the gauge datum face, the other by the measuring face of the beam

3.2 measuring range

range of depths that the gauge can be used to measure without the vernier scale extending beyond the main scale